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POPULATION DYNAMICS AND DEVELOPMENT IN THE CARIBBEAN*

(With special emphasis on adolescent fertility, international migration and population policy and development planning)

* A preliminary version of this work was prepared by Ms. Barbara Boland for the Meeting of Government Experts on Population and Development in Latin America and the Caribbean, Saint Lucia, 6-9 October 1992.

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Implications for demographic changes in the region

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Implications for demographic changes in the region.

1. Introduction

The decade of the 1980s was considered a turbulent one which was accompanied by swift changes that strained the capacity of many Caribbean countries to cope. Most countries faced the situation with varying degrees of skill in managing change, based on their resource endowments and their capacities to formulate appropriate policies (Harker, 1992).

The essential characteristics of Caribbean economies that make them very susceptible to external shocks are the fact that they are small, open, dependent economies which are undiversified. In addition to being small and undiversified, the economies exhibit characteristics of extreme openness, proneness to natural disasters, service oriented and high food imports which together add up to extreme vulnerability (Samuel, 1992).

The optimal size of the population bears a close relationship to the resources in the country and the potential to develop those resources. The population interacts in a dynamic way with its other resources to generate economic development. Given the small size of the countries of the region and the limited resource base, the adequacy of the population to generate self-sustaining growth comes into question. Another consequence of the vulnerability and small size is the lack of a critical mass which economies require to make the necessary effort to break into international markets (Samuel, 1992). In addition to population size, other demographic factors that would interrelate with the development process and have implications for investment and public expenditures include the age-sex structure and distribution of the population as well as the pattern of its migration movements.

2. Performance of economies

The relative performance of individual countries over the past decade was conditioned by the mix of products contained in each country's basket as

TABLE 1A: PERCENTAGE CHANGE IN GDP
(at constant prices)

	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1982-1992
Antigua/Barbuda	0.4	6.9	7.5	7.7	9.7	9.0	7.7	5.2	2.8	1.8	58.5
Bahamas(b)	6.9	3.2	3.0	13.5	3.6	4.9	4.5	4.0	0.2	...	43.8
Barbados	-5.0	0.4	3.6	1.2	5.1	2.5	3.5	3.5	-3.1	-4.1	7.6
Belize	-0.8	0.8	0.8	2.3	2.6	12.5	6.6	14.7	8.9	4.2	52.6
Cuba(a)(b)	3.9	4.9	7.2	4.6	1.2	-3.9	2.2	1.1	1.0	...	22.1
Dominica	1.9	3.0	5.0	1.7	6.8	6.8	7.9	-1.1	6.6	2.1	40.7
Dominican Republic	1.5	4.6	0.3	-2.6	3.2	7.9	1.0	4.5	-4.8	-0.5	15.1
Grenada	5.3	1.4	5.4	4.9	5.5	6.0	5.8	5.7	5.2	2.9	48.1
Guyana	-10.4	-9.3	2.1	1.0	0.2	0.7	-2.9	-4.7	-3.1	6.1	-20.3
Haiti	-3.5	0.6	0.4	0.4	1.0	0.1	1.3	0.7	-0.6	-1.4	-1.0
Jamaica	0.5	2.3	-0.9	-4.7	1.7	7.4	2.9	6.5	4.8	0.2	20.7
St.Kitts/Nevis	6.8	-1.1	9.0	5.6	6.2	7.4	9.8	6.7	3.0	6.9	60.3
St.Lucia	3.2	4.1	5.0	6.0	5.9	1.5	12.1	4.6	4.0	1.7	48.1
St.Vincent	5.1	5.8	5.3	4.6	7.2	6.4	8.6	7.2	7.1	4.6	61.9
Suriname(b)	2.0	-4.1	-1.7	1.7	8.3	7.9	-0.2	2.0	0.2	...	16.1
Trinidad/Tobago	4.0	5.2	-7.1	-4.5	-1.0	-4.6	-3.8	-0.7	-0.2	1.8	-10.9
Puerto Rico	-4.8	1.7	6.6	2.2	3.5	4.9	6.5	4.9	3.5	2.0	31.0

(a) Global social product in 1981 prices.
(b) Cumulative variation relates to period 1982-1990.
Source: Caribbean Economic Performance and Prospects. Towards sustainable development policies, Trevor Harker, 1992.

well as the degree to which appropriate policies were adopted to adjust to shocks or to take advantage of opportunities. The OECS countries, Bahamas and Belize were foremost among the "high growth economies", recording growth in excess 5 per cent per annum between the 1981-1990 period. This was due largely to vibrant and growing tourism industries coupled with banana exports, in the case of the OECS, which provided the necessary foreign exchange to sustain increased domestic activities (Table 1A).

The other group of countries with moderate growth economies comprised Jamaica, Cuba and Puerto Rico, which experienced growth rates of 2-3 per cent. These countries had relatively diversified economies but the performance of the various sectors was mixed. Barbados, the Dominican Republic and Suriname fell into the category of low growth economies, possessing an average growth rate of 0-2 percent. Finally, there were those countries with contracting economies such as Guyana, Haiti, and Trinidad and Tobago, all of which experienced declines in GDP (Harker, 1992).

3. Effects on the population

The above economic scenario is incomplete, however, without an analysis of the distribution of the costs and benefits of such economic performance, including the impacts of economic contraction, especially of government services, on varying population groups within each country. Also to be factored into the equation should be the differing rates of population growth of each country as well as the age-sex structure, distribution patterns and other demographic indicators of the population (fertility and mortality).

Among the more important factors affecting human resource development and deprivation are: health status, fertility, low wages/incomes, unemployment, educational attainment, emigration and inaccessible basic services such as health, water and sanitation. These, in turn, are conditioned by changes in economic

policy and the external environment all of which exert an impact upon the standard of living. Each of these factors will be considered briefly in the next few paragraphs.

Unemployment

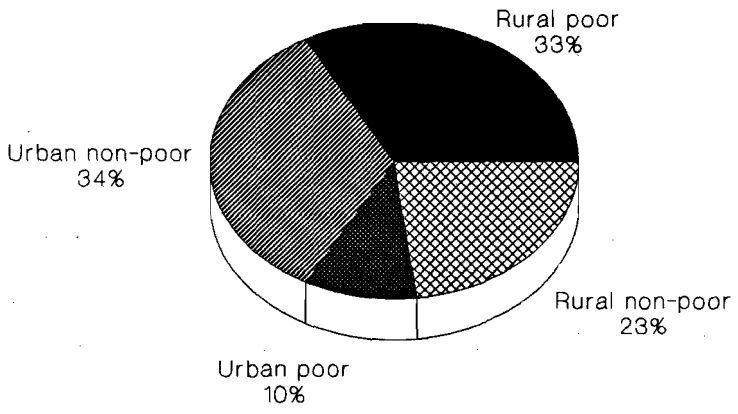
The decline in economic activity has affected the lives of people in a number of ways. Most important have been a reduction in the number of jobs available, and a marked fall in the standards of living.

Indeed, in spite of the strong growth experienced in some countries, such as the OECS, unemployment has remained persistently high. Current unemployment (1991) rates for Jamaica average about 15.4 per cent (which represents a decrease from 24 per cent in 1986). Rates for Trinidad and Tobago are higher (18.9 per cent), although this also represents a declining rate. But even more alarming are the rates for the Windward Islands which are estimated as ranging between 20-40 per cent (Samuel, 1992). The youth and women are the largest groups among the unemployed. Unemployment rates for young people, age 15-24 range between 40 and 60 per cent for most countries. With regard to women, in some countries, for example, Barbados and Jamaica, female unemployment was almost double that for men (Harker, 1991). In light of the high teenage pregnancy rates coupled with the large percent of female headed households (over 40 per cent), the situation warrants close monitoring as well as the formulation of appropriate intervention programmes.

Poverty

It is possible to conclude that, in at least six countries - Dominican Republic, Guyana, Haiti, Jamaica, Suriname and Trinidad and Tobago - people have become poorer in the past ten years (Harker, 1992). In the case of Jamaica, data from the survey of living conditions (1988), indicated that about 43 per cent of the total population have incomes below the poverty line. Moreover, the incidence of poverty is

Figure 1A
Prevalence of Poverty in Jamaica in 1988



Source: Gordon (1989)

much higher in the rural areas (Gordon, 1989). (Figure 1A). Estimates of the poverty lines for Trinidad and Tobago and Guyana suggest that the prevalence of poverty has increased in both countries during the 1980s (World Bank Report, 1990; CSO, Household expenditure Survey, 1989). These increases in the prevalence of poverty have resulted in a decline in personal income, especially for the poorest (particularly the old age pensioners). In the case of Trinidad and Tobago, real income declined by 27 per cent during the mid-1980s (CSO, 1989).

4. Structural Adjustment, Devaluation and Debt Servicing Policies and Social Development.

The economic decline impacting on the standard of living of some of the Caribbean people has manifested itself in structural adjustment programmes,

TABLE 1B : PREVALENCE OF POVERTY IN GUYANA AND TRINIDAD AND TOBAGO

	1980	1981-82	1988	1989
GUYANA				
Poverty line (G$ per head per month)	90	n.a.	405	851
Poverty line (US$ equivalent)	35	n.a.	30	20
Percent of poor population	55	n.a.	61	67
TRINIDAD AND TOBAGO				
Poverty line (TT$ per head per month)	n.a.	110	220(a)	n.a.
Poverty line (US$ equivalent)	n.a.	46	61	n.a.
Percent of poor population	n.a.	3.5	14.8(a)	n.a.

n.a. = not available
a. Henry and Melville in Poverty Revisited: Trinidad and Tobago in the late 1980s, University of the West Indies, March 1989, estimated the poverty line at TT$188 and the poor population at 18.5%
Source: IDB and household expenditure surveys in Trinidad and Tobago

devaluation of the dollar and high debt servicing charges.

Structural adjustment measures, since the mid-1980s, have served to worsen the situation through a lowering of expenditures on social services, a reduction (and sometimes elimination) of subsidies for basic consumer goods, including food, and a steady devaluation which resulted in an increase in the prices of imported basic commodities. Another manifestation of the adjustment programmes has been increases in the user charges for social services including water, electricity, and medical services. Combined with reduced employment opportunities and wage restraint, the result has been a greater influx of people into the vulnerable groups for whom poverty alleviation programmes have to be devised.

Likewise, debt servicing has been a constant drain on the foreign exchange earnings of the countries, reducing the

level of investment as well as the growth potential of the countries. This, in turn has forced government to divert finances and resources away from local expenditure, resulting in disproportionate expenditure cuts to social services.

Overall, there was a systematic increase in external debt during 1986-1990 period. (Figure 1B). Guyana and Jamaica, which suffered from adverse commodity price movements combined with macroeconomic imbalances, suffered the highest burdens. As a proportion of current revenue, the debt service for Jamaica averaged 76.6 per cent per annum from 1986-1988 and decreased to 48.9 per cent in 1990 as a result of the restructuring exercise. In contrast, Guyana's debt as a proportion of current revenue rose from 79.5 per cent in 1988 to 96.6 per cent in 1990. On the whole, the debt ratios for the OECS countries, with the exception of Antigua and Barbuda, were much lower due to the fact that long-term external borrowing has been kept at a relatively low level (Caribbean Development Bank, 1990).

Another symptom of the decline in the standard of living has been the steady depreciation of the currency which, in small, open economies has a much greater impact on all sectors than in bigger countries that have a large reservoir of domestic production (Harker, 1992).

5. Expenditure on Social Services - impact on population sub-groups

While personal standards of living were falling in many countries, the capacity of governments to provide a social safety-net for the poorest was also diminishing, due to a contracting revenue base. Since revenues could not easily be raised, governments responded through a reduction in public expenditures, which largely affected the delivery of social services in areas such as health, education, housing, and in some cases, nutrition.

Health expenditure, as a proportion of total central government expenditure, varies among countries in

Figure 1B
Debt Service as a Percentage of Current Revenue, 1988 and 1990

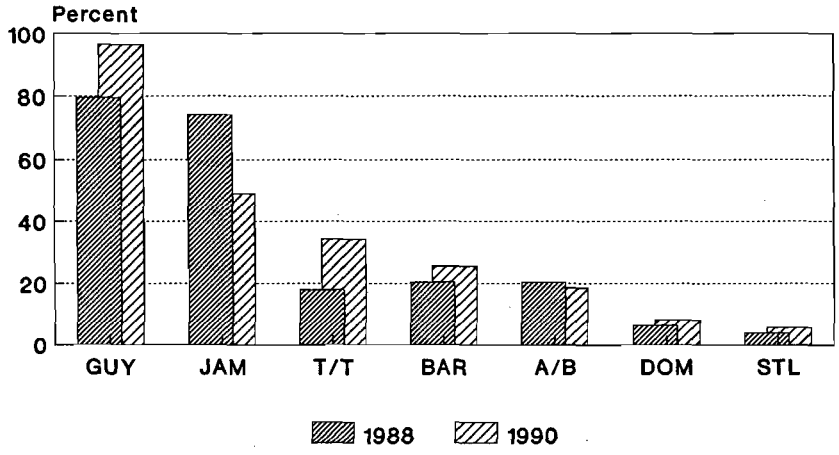


Figure for T/T is for 1987 not 1988
Source:Caribbean Development Bank
Social & Economic Indicators,1990

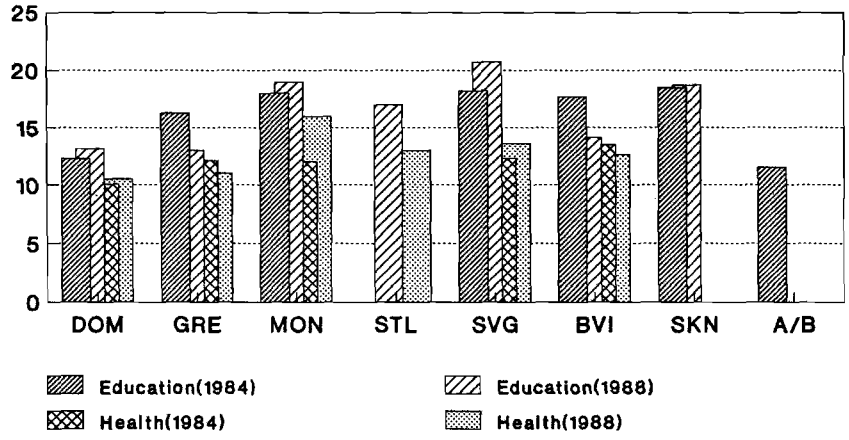
NOTE: The country abbreviations used in the graph above are as follows: GUY - Guyana; JAM - Jamaica; T/T - Trinidad and Tobago; BAR - Barbados; A/B - Antigua and Barbuda; DOM - Dominica; STL - Saint Lucia.

the region. For example, per capita health expenditures declined steadily in Jamaica and Guyana. On the other hand, the picture looks more positive for the OECS countries. Figure 1C shows, that on average, there was a marginal decline in current expenditure on education as a percentage of government revenue, while there was a slight increase in the percentage spent on health during the period 1984-1988.

Thus on average social expenditure remained roughly constant. On the other hand, given the high ratio of young people to the total population, the percentage expenditure on education ought to have been increased. But this has not been the case. Thus, in some countries there is increased incidence of over-crowding in primary schools, with shift systems being used in some cases to alleviate the problem. Also the number

Figure 1C

EXPENDITURE ON SOCIAL SERVICES 1984 and 1988



BVI education figure is 1986 not1988
Source:W.A.Samuel,1992, Socio-economic senario of the eastern caribbean.

NOTE: The country abbreviations used in the graph above are as follows: DOM - Dominica; GRE - Grenada; MON - Montserrat; STL - Saint Lucia; SVG - Saint Vincent and the Grenadines; BVI - British Virgin Islands; SKN - Saint Kitts and Nevis; A/B - Antigua and Barbuda.

of places in secondary schools has not increased to meet the increased demand. As a result, a smaller percentage of students are entering secondary schools.

The governments already spend close to 20 per cent of their budget on education (sometimes more), while at the same time, international development assistance is falling off.

Thus, increasing expenditure on education would be difficult. It therefore means that, in the short run, the emphasis would have to be on increasing the efficiency of the funds allocated to education. In the long run, growth in the economy would have to make more funds available to the government for all categories of social expenditure including education.

6. Discussion

It is not always an easy task to measure the effects of a reduction in expenditures on social services, given the time lags involved. However, in light of the above, it is possible to suggest that declining quality of education, poor health-care delivery and increased malnutrition have been some of the consequences of social expenditure cuts.

In some countries, there are target groups which are very vulnerable. These include:

1. Pregnant and lactating mothers, especially women and children in single parent homes. Over one-third of the households in the OECS are headed by females.

2. Youths between the ages of 15-25. The incidence of unemployment among this group is quite high, especially among females.

3. The aged for whom the support services are inadequate. Welfare services are inadequate and many of the aged are not covered by the National Insurance schemes in the OECS, partly because of its recent establishment. A limited number of people receive small monthly pensions and the coverage is small.

While economic growth may reduce the general level of poverty, specific initiatives have to be devised to alleviate poverty in these groups and to find ways of increasing their resilience. These include: (1) effective economic management in generating employment-creating economic growth; (2) the elimination of distortions that also affect the poor; (3) programmes which contribute to asset formation by the poor; (4) safety nets which are reliable and fiscally responsible; (5) improvements in the monitoring of poverty (Samuel, 1992).

SECTION TWO

CARIBBEAN POPULATION DYNAMICS

POPULATION DYNAMICS

1.0 OVERVIEW

Among the Caribbean countries, it appears that new patterns of regional differences and similarities in demographic conditions are appearing. Highly characteristic is the wide spread of population sizes within the region, ranging in 1991[1] from over 10 million for Cuba to under 11,000 in Montserrat, a more than 1,000 to 1 ratio.

Similar divergences exist among the rates of population change in the CARICOM region which vary between -0.6 per cent per annum (Montserrat) and +4.2 per cent (British Virgin Islands). High rates above 3 per cent are usually the result of immigration to those countries which possess mostly service- and tourist-oriented economies. Although the majority of countries register positive growth rates, at least seven countries experience either close to zero growth (Barbados, Antigua and Barbuda, Grenada, Saint Vincent and the Grenadines), or negative growth (Dominica, Montserrat, Saint Kitts and Nevis) due largely to massive net out-migration influences.

The average rate of growth during the 1980s stands now at 1.34 per cent per year for the whole region, and at 1 per cent for the 13 CARICOM countries. These rates reflect, of course, different mixes of natural increase and migration rates.

For the 1985-1989 period, the average crude death rate for the whole region was 8 per thousand. The rates varied among countries from about 5 to 11 per thousand (with the exception of Haiti which stands at an estimated 16 per thousand) (Table 1). However, the

[1] *For a majority of countries, the 1990-1991 census count was lower than expected. As a result, the quality of censuses has been questioned. However, as has happened before, the "low census figures" are probably the result of underestimated out-migration between censuses. This problem results from a combination of difficulties involved in the measurement of migration movements, the emphasis placed on the entries-departures statistics despite their obvious shortcomings, as well as the inaccurate belief that emigration outlets would close, causing a decrease or even cessation to emigration.*

TABLE 1. SELECTED DEMOGRAPHIC INDICATORS BY COUNTRY

COUNTRY	1990/1991 Population ('000's)	Total Fertility Rate	Crude Rates Per Thousand			Average Annual Rate of Growth 1980-1990
			Birth	Death	Natural Increase	
Antigua and Barbuda	62.9(m)	...	17(r)	6(r)	11(r)	...
Aruba	62.1(n)	1.8(g)	16(r)	6(r)	10(r)	0.2(j)
Bahamas	254.7(o)	2.1(a)	20(b)	6(b)	14(b)	2.0
Barbados	257.1(o)	1.6(c)	15(c)	9(c)	6(c)	0.6
Belize	190.8(m)	5.0(c)	37(b)	5(b)	32(b)	2.5(i)
Bermuda	58.5(o)	1.8(g)	16(r)	8(r)	8(r)	0.6(j)
British Virgin Islands	16.6(m)	...	19(c)	6(c)	13(c)	4.2(i)
Cuba	10574.9(n)	1.9(g)	18(r)	6(r)	12(r)	1.0(j)
Cayman Islands	25.4(k)	...	16(r)	5(r)	11(r)	4.1(j)
Curacao	148.0(n)	2.3(g)	20(r)	6(r)	14(r)	0.1(j)
Dominica	71.8(m)	...	18(c)	5(c)	13(c)	-0.3(d)
Dominican Republic	7169.8(p)	2.8(g)	28(r)	7(r)	21(r)	2.7(q)
French Guiana	113.8(o)	3.7(g)	27(r)	5(r)	22(r)	5.0(j)
Grenada	90.7(m)	4.5(a)	33(a)	8(a)	25(a)	0.2(i)
Guyana	794.2(n)	2.8(b)	25(b)	6(b)	19(b)	0.5
Guadeloupe	385.5(o)	2.2(g)	19(r)	6(r)	13(r)	1.7(j)
Haiti	5939.0(n)	6.4(l)	47(r)	16(r)	31(r)	1.6
Jamaica	2248.2(m)	2.9(b)	25(b)	6(b)	19(b)	1.2(j)
Montserrat	10.9(m)	2.3(e)	17(r)	11(r)	6(r)	-0.6(i)
Martinique	358.8(o)	2.1(g)	18(r)	6(r)	12(r)	1.0(j)
Puerto Rico	3514.0(o)	2.3(g)	19(r)	7(r)	12(r)	1.0(j)
St.Kitts/Nevis	41.8(m)	2.8(c)	21(c)	10(c)	11(c)	-0.4(i)
St.Lucia	133.3(m)	3.4(b)	25(b)	6(b)	19(b)	0.8(i)
St.Vincent and the Grenadines	107.6(m)	3.1(a)	24(a)	6(a)	18(a)	0.9(i)
Suriname	402.5(n)	3.6(a)	26(r)	7(r)	19(r)	1.2(j)
Trinidad and Tobago	1234.4(o)	2.5(b)	21(b)	7(b)	14(b)	1.3
U.S Virgin Islands	101.7(o)	2.8(g)	23(r)	5(r)	18(r)	0.6(j)

(a)1987 (b)1989 (c)1988 (d)1981-1991 (e)1985 (f)1985-1990(g)1990 (h)1991 (i) 1980-1991 (j)1980-1989 (k)1989 census (l)1985-1987 (m)1991 census (n)January 1990 estimate (o) 1990 census (p)1990 CELADE projection (q)1981-1990 (r) 1985-1989 average

Sources: Regional Digest of Selected Demographic and Social Indicators, 1960-1990, UNECLAC/CELADE Demography Unit, Port of Spain, Trinidad; Current Demographic Trends and Issues, Jean-Pierre Guengant, 1992.

differences observed are more the result of age structure differences (which impact importantly on the crude death rate) than of mortality levels. Indeed, all countries of the region (again with the exception of Haiti) now have life expectancy at birth around 70 years or higher. The main causes of deaths are now attributable to non- communicable diseases such as cardio-vascular diseases, cancers and diabetes. As mortality rates stand at fairly low levels, natural increase rates in the region are now primarily driven by crude birth rates.

Interestingly enough, despite continuing fertility decline, the 1985-1989 average crude birth rates remained quite high. It reached 26 per thousand for whole region and 25 per thousand for the 13 CARICOM countries. The majority of countries had a crude birth rate above 20 per thousand while three countries still had a crude birth rate above 30 per thousand, (Table 1). Finally, only four countries (Bermuda, Aruba, Cayman Islands and Barbados) had rates around 15 per thousand, in contrast to the high of 47 per thousand (for Haiti).

Consequently, natural increase rates have remained high since the late 1980s. They reached 1.8 per cent per year for the region as a whole. Such rates correspond to a population doubling every 40 years if they were to continue. Only two countries, Belize and Haiti, still have natural increase rates above 3 per cent per year. In contrast, three countries: Montserrat, Barbados and Bermuda possess natural increase rates below 1 per cent per year, thus indicating that they are in the final phase of their demographic transition, and are approaching equal numbers of births and deaths, or zero natural increase.

The contradictory nature of this picture, illustrating the combination of low population growth rates with persistently high natural increases, can obviously be traced to the high emigration levels. Likewise, the wide differences in population growth among

TABLE 2 : PROPORTION OF POPULATION BY FUNCTIONAL AGE GROUPS 1960 and 1988-1991

COUNTRY	AGE GROUP / YEAR							
	SCHOOL AGE 0-14 yrs		YOUTH 15-24 yrs		WORKING AGE 15-64 yrs		ELDERLY 65+ yrs	
	1960	1988-1991	1960	1988-1991	1960	1988-1991	1960	1988-1991
	(%)		(%)		(%)		(%)	
Barbados	38	25(a)	16	19(a)	56	64(a)	6	11(a)
Belize	44	44(b)	17	21(b)	52	51(b)	4	5(b)
Jamaica	41	34(b)	..	22(b)	55	59(b)	4	7(b)
St.Lucia	44	37(c)	18	21(c)	51	57(c)	5	6(c)
Dominican Rep.	47	38(d)	18	20(d)	50	59(d)	3	3(d)
St.Kitts/Nevis	46	33(a)	15	20(a)	49	57(a)	5	10(a)
Trinidad/Tobago	43	31(d)	18	18(d)	53	63(d)	4	6(d)

(a) 1988 (b) 1989 (c) 1991 (d) 1990

countries have to be explained in terms of different migration patterns.

Age Structure

The consequences of demographic change for a country's planning and policy efforts depend to a large extent on the way in which the population is distributed among the childhood, teenage, young adult and elderly segments. This age distribution can, in turn, have implications for social and economic sector planning and other aspects such as household expenditure patterns, savings and investment consequences, consumer needs, education, nutrition, maternal and child care, housing needs, health supports and demands on other private and public sector resources.

The most visible consequence of the demographic transition is the youthfulness of the Caribbean population. Over 50 per cent is under 25. However, the trend seems to be one of gradual declines. On average, the region's proportion in this group fell from about 60 per cent in the 1960s. It is expected, however, to reach 45 per cent by the year 2000, based on the assumption of continued fertility declines in the 1990s. In contrast, massive increases are being experienced in the labour force age group (15-64) which is expected to grow even further by the year 2000. Percentage increases of this group over the past two decades range from 85 per cent for the Bahamas to a low of 11 per cent for the Dominican Republic. The implications for training and employment policies are enormous.

Of significance, is the population of age 65 and over, which rose from around 4 to 10 per cent during the 1950-1990 period. It is expected to reach a level representing about 14 per cent of the total population as a result of expected further declines in fertility as well as increased survival chances in the elderly sector. This new demographic trend, rapid population ageing, merits greater policy attention by governments and policy makers who, within a quarter century, will be facing ageing patterns requiring different social and economic adaptations.

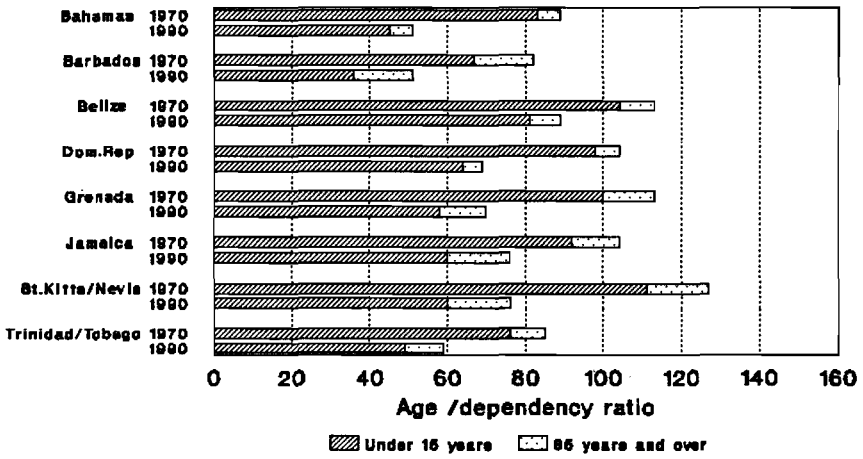
On the whole, variations in age distributions among individual countries exist according to the current patterns of fertility and mortality differentials. Thus, for example, areas with high birth rates, such as Belize, would continue to possess the highest proportions under 15 (43 per cent) and the lowest percentage over 65 (5 per cent). Those with the lowest childbearing rates and mortality rates would exhibit the reverse pattern of proportions (for example, Barbados).

An important characteristic of the structure of the population of the region is the proportion of women in the childbearing years, operationally defined as age 15 to 49. What is noteworthy is that in most countries this proportion has been growing slowly but steadily, for the past three decades.

Figure 1

Age Dependency Ratios, 1970 & 1990

Total, under 15 yrs and 65 yrs & over



SOURCE: Regional Digest of Selected Demographic & Social Indicators, 1960-90 ECLAC/CELADE, Port of Spain, Trinidad.

Variation among countries is small and has reached an average of 24 per cent of the total population. Equally important is the fact that for all countries, the number of women in these ages is also increasing, and sometimes doubling in some countries (Bahamas, Dominican Republic) since 1960.

The significance of the rising proportion of women in the childbearing years is, of course, that, even if fertility declines, the potential number of children will still be very large.

Dependency Patterns

An important consequence of changes in the population's age distribution is a corresponding shift in the balance between the number of persons of working age, by convention defined as 15-64 years, and the population in dependent ages, children under age 15 and persons aged 65

years and over. As can be seen, nearly half the population is in the dependency ages 0 to 14 or is 65 or older. On average, the range is about 67 dependants per 100 in the working population which is composed of 56 children aged 0 to 14 and 11 persons aged 65 and over. Variations among countries are large (from 57 per cent total dependants for Bahamas and Barbados to about 89 persons to 100 working population in Belize). The dependency ratios, which have been gradually shifting over time during 1950-1970, peaked at around 130 in 1970, after which it has been declining ever since. This favourable reduction in aggregate dependency burden per worker is due to disappear with the expected increase in the elderly ratio, which will offset the further declines anticipated in the young age group as a result of falling childbearing rates.

The implications of these shifts in age distribution for development planning are important. Governments need to ensure that their package of policy responses in the form of social and economic programmes is comprehensive enough to respond to the needs and changing demands of the different age sectors.

2.0 MORTALITY PATTERNS

The overall level of mortality is often considered an indicator of the health situation and of the population's standard of living and socio-economic development. A review of the data reveals that, on average, Caribbean countries have gained 16 years in life expectancy at birth since the 1950-1955 figure of 52.6 years (combined sexes), which reached an average longevity of 69.0 years in 1985-1990. This average, of course, conceals the contrasting performance of some countries. For example, the Dominican Republic and Haiti have continued to lag behind mortality transitions in the region, registering expectations of life at birth of 66 and 55 years, respectively. On the other hand, some countries, such as Barbados, Belize and Cuba, have already reached a span of longevities within the 70-75 range. Nevertheless, these

advances should not obscure the need to continue efforts to reduce mortality in the region, especially since the pace of gain in life expectancy at birth for most countries has slowed down somewhat, particularly in those countries where life expectancy approaches or exceeds 70 years.

Variations by Sex

Within these broad changes, divergences exist between the sexes, with the gap growing wider over time in most countries. For example, in Jamaica, the current difference between the sexes in life expectancy at birth is 4.5 years, as reflected in the average life expectancy for women around 73.1 years, in comparison to 68.6 years for males. Moreover, between 1950-1990, the gains in this indicator have been greater for women (14.2 years) than for men (12.9 years), which have tended to widen the difference.

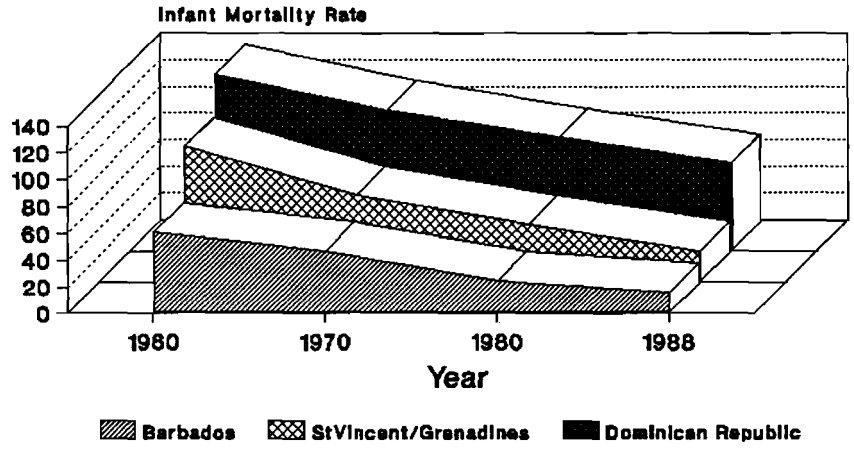
On the whole, when mortality is high and living conditions difficult, the difference between the sexes is small. As development accelerates and mortality levels are reduced, the difference increases. This is the case, for example, in Haiti, where the current 1985-1990 life expectancy for women is only 3.3 years greater than for men.

Infant Mortality

The infant mortality rate is a more sensitive barometer than the measure of life expectancy, in registering the effects of socio-economic and other environmental and disease control influences on health conditions and the transitions that have taken place in the region over the past 40 years.

On the whole, many of the Caribbean countries have experienced declines in the infant mortality rate to less than one-third the post-war levels. During the early 1950s, such rates ranged from about 60 deaths per 1,000 live births under age 1, on the low side (for example, Puerto Rico); to a medium level of approximately 100 deaths per 1,000 live births, especially in the Eastern Caribbean countries; to a high

Figure 2
Infant Mortality Rates, 1960-1988



SOURCE: Regional Digest of Selected Demographic & Social Indicators, 1960-90 ECLAC/CELADE, Port of Spain, Trinidad.

of more than triple the low level, or well over 200, in Haiti. Currently, the rates are between 20 and 30 in most countries. Some countries still lag far behind in mortality levels, however (Haiti, 100 deaths and the Dominican Republic, 65 deaths per 1,000 live births).

Scarcity of cause-of-death and morbidity data hinder comparative analysis of the main causal factors involved. However, it is possible to conclude that health-focused initiatives by governments (public health programmes, advances in sanitation and water supply) must have been the primary determinants. Also, slower-moving socio-economic factors, especially those involving female educational advances, may explain some of the mortality differentials.

TABLE 3 : MORTALITY BY BROAD GROUPS OF CAUSES, 1982-1989

BROAD GROUPS OF CAUSES(a)(b)	Trinidad & Tobago 1987-1989 %	St. Lucia 1987-1989 %	Barbados 1984-1986 %	Jamaica 1982-1984 %	Bahamas 1986-1988 %	British Virgin Islands 1986-1988 %	St. Vincent and the Grenadines 1986-1987 %
-Infectious and parasitic diseases	3.1	4.6	2.5	5.1	2.8	0.9	2.5
-Neoplasms	13.1	10.9	18.2	15.2	19.2	7.1	10.8
-Diseases of the respiratory system	7.2	7.4	5.2	5.9	6.9	17.4	4.6
-Diseases of the circulatory system	39.1	34.7	43.6	37.3	28.4	27.2	39.4
-Certain conditions originating in the perinatal period	2.2	5.6	2.6	1.8	5.8	-	5.2
-External causes of injury and poisoning	8.2	6.9	4.4	3.0	12.6	5.8	7.1
-Signs, symptoms and ill-defined conditions	2.2	14.4	19.9	12.0	2.1	9.4	8.0
-All other diseases	24.9	15.5	3.6	19.7	22.2	32.2	22.4
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0

(a) Figures represent three-year averages except for St. Vincent and the Grenadines.
(b) Broad groups of causes

Causes of Death

The above variants in mortality trends by age and sex are also closely linked to changes in the epidemiological profile of the countries of the region.

The relative importance of different causes of death varies among countries according to their population age structure, the level of mortality and stage of development.

In general, the principal causes of death among infants and children below five years in Caribbean countries have been nutritional deficiencies, diarrhoeal disease and acute respiratory infections (UNICEF, 1991).

Improvements in life expectancy have slowed for most countries in the past two decades, mainly because deaths due to causes other than infectious and parasitic diseases now account for a larger proportion of the total and these deaths are less likely to be averted using the types of interventions that were effective against infections.

Today, deaths from "diseases of the circulatory system" and "neoplasms" together account for approximately 49 per cent of the total deaths, (Barbados 62 per cent, the highest, and the British Virgin Islands 34 per cent, the lowest). On the other hand, deaths from infectious and parasitic diseases account for only 3 per cent on average. However, with the increasing incidence and deaths from the Acquired Immune Deficiency Syndrome (AIDS), the numbers and the percentage of deaths in this cause group can be expected to increase.

This means that each programmatic sector of health within the region will receive different emphasis, depending on each country's level of mortality and the corresponding age structure of mortality and its related epidemiological profile. To a lesser extent, this emphasis will also be affected by changes in the population's age structure, which in turn is determined by the level and pace of the demographic transition.

TABLE 4: LIFE EXPECTANCY AT BIRTH BY SEX, 1950 - 1952, 1985 - 1990

COUNTRY	MALE			FEMALE			DIFFERENCE BY SEX	
	1950-1952 (1)	1985-1990 (2)	Diff. (2) - (1) (3)	1950-1952 (4)	1985-1990 (5)	Diff. (5) - (4) (6)	1950-1952 (4) - (1) (7)	1985-1990 (5) - (2) (8)
Antigua & Barbuda	49.0(a)	69.0(b)	20.0	55.0(a)	72.0(b)	17.0	6.0(a)	3.0(b)
Bahamas	61.0(d)	64.9(f)	3.9	67.3(d)	72.5(f)	5.2	6.3(d)	7.6(f)
Barbados	53.4	72.0(c)	18.6	58.0	76.0(c)	18.0	4.6	4.0(c)
Belize	45.0	71.0	26.0	49.0	73.4	24.4	4.0	2.4
British Virgin Islands	50.0	66.4	16.4	55.0	74.6	19.6	5.0	8.2
Cuba	56.7(h)	72.2	15.5	61.0(h)	75.8	14.8	4.3(h)	3.6
Dominica	46.0	63.5	17.5	50.3	69.8	19.5	4.3	6.3
Dominican Republic	42.9	63.9	21.0	45.2	68.1	22.9	2.3	4.2
Grenada	51.4	67.7	16.3	55.5	74.3	18.8	4.1	6.6
Guyana	53.2	67.3	14.1	56.3	72.3	16.0	3.1	5.0
Haiti	36.3(h)	53.1	16.8	38.9(h)	56.4	17.5	2.6(h)	3.3
Jamaica	55.7	68.6	12.9	58.9	73.1	14.2	3.2	4.5
Montserrat	...	63.5	...	...	69.8	...	...	6.3
St. Kitts and Nevis	52.0	63.5	11.5	56.3	69.8	13.5	4.3	6.3
St. Lucia	55.1(e)	67.9(g)	12.8	58.5(e)	73.7(g)	15.2	3.4(e)	5.8(g)
St. Vincent and the Grenadines	51.4	66.9	15.5	53.8	72.2	18.4	2.4	5.3
Suriname	...	67.0	...	...	72.1	...	...	5.1
Trinidad and Tobago	56.3	68.1	11.8	58.4	72.8	14.4	2.1	4.7
U.S. Virgin Islands	...	...	...	...	...	...	...	...

(a) 1946 (b) 1983 (c) 1987 (d) 1962-1964 (e) 1960 (f) 1979-1981 (g) 1988 (h) 1950-1955.
SOURCES: United Nations Demographic Yearbooks; *Life Tables for the West Indian Populations 1945-47 and 1950-52*, Census Research Programme, No:14, University of the West Indies, Mona, Jamaica, 1966; National Statistical Reports.

Policy Implications

These patterns point to several major conclusions of policy importance. First, since life expectancy levels in many individual Caribbean areas have reached a level of around 70 years, which is not far from the lowest mortality levels encountered in developed countries, it can be expected that future longevity gains may well be slower and smaller than in the past. Also, because of the shift in main causes of death, such gains will be increasingly dependent on overall socio-economic development as against the previous gains achieved largely from easier-to-implement public health interventions. A recent study has found a negative relationship between infant mortality and GNP per capita for the region (World Bank, 1992).

Second, where mortality at the younger ages has fallen (as in Barbados and the British Virgin Islands) most future substantial gains in life expectancy at birth will have to stem from survival gains beyond age 40 and hence will result from very different cause-of-death patterns and will need to emphasize different socio-economic and health programmes.

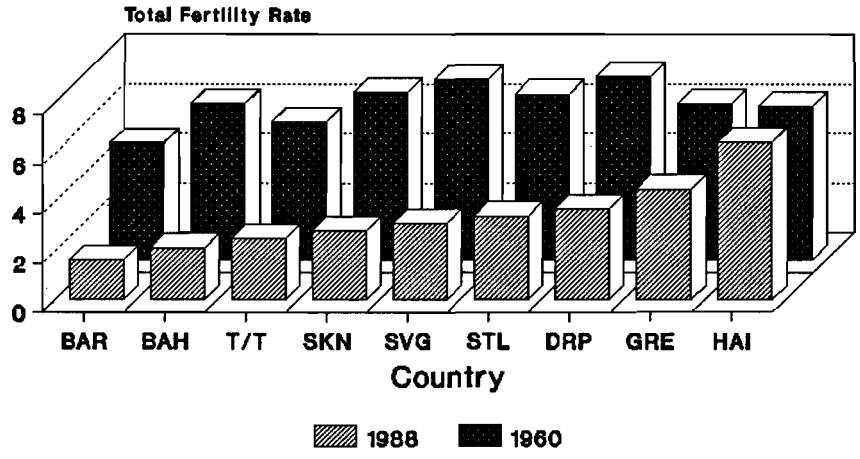
Third, it follows that substantial future longevity gains would, for the first time in the region's demographic history, imply accelerated tendencies toward population ageing.

In view of the larger role being played by socio-economic conditions in determining the health levels of the region, a source of rising concern for policy makers is the extent to which recent economic setbacks could become large enough to prevent further sustained gains in mortality and morbidity conditions.

3.0 FERTILITY - General Trends and Patterns

The fertility transition process of the region has evolved considerably over the last 40 years. On average, it could be said that the majority of countries are in the middle to late stage of their demographic transition (third to fourth stage), demonstrating moderately low fertility and moderate to low mortality.

Figure 3
Total Fertility Rates,
1960 and 1988



Source: Regional Digest of Selected Demographic & Social Indicators ECLAC/CELADE, Port of Spain, Trinidad.

NOTE: The country abbreviations used in the graph above are as follows: BAR - Barbados; BAH - The Bahamas; T/T - Trinidad and Tobago; SKN - Saint Kitts and Nevis; STL - Saint Lucia; DRP - Dominican Republic; GRE - Grenada; HAI - Haiti.

There is, however, a wide variety in the extent, pace and timing of onset in the demographic transition of the different countries. Some countries have already completed the transition (Barbados and Montserrat); others such as Saint Lucia and Grenada have started on the third stage of decline, but still need to make much headway. Others such as Haiti and Belize are still in the initial stages of their demographic transition (Table 8).

Many of the countries in the region have experienced a nearly 50 per cent drop in the total fertility rate levels, from about 6.0 to 3.0 children per woman in the last 30 years, representing one of the more outstanding demographic transition phases on record.

TABLE 5: TOTAL LIVE BIRTHS BY SEX AND COUNTRY, 1960 -1989

COUNTRY		LIVE BIRTHS 1960	1970	1980	1988	1989
Antigua and Barbuda(a)	Both Sexes	1888	1700(b)	1238	1107	...
	Male	940	871	639	547	...
	Female	948	829	562	560	...
Bahamas(a)	Both Sexes	...	4894	5099	4953	5012
	Male	...	2119	2599	2516	...
	Female	...	2143	2434	2427	...
Barbados	Both Sexes	7833	4883	4148	3739	...
	Male	3998	2421	2089	1940	...
	Female	3835	2462	2059	1799	...
Belize	Both Sexes	4091	4455	6264	6325	6810
	Male	2119	2214	3316	3246	3499
	Female	1972	2241	2948	3079	3311
British Virgin Islands	Both Sexes	225(c)	318	272	237	235
	Male	125	169	119	116	120
	Female	100	149	153	121	115
Dominica	Both Sexes	2815	2503	1819	1440	...
	Male	1464	...	915	...	...
	Female	1351	...	904	...	...
Grenada	Both Sexes	4020	2741	2571	...	...
	Male	2015	1388	1272	...	...
	Female	2005	1353	1299	...	...
Jamaica(d)	Both Sexes	68413	...	58589	53623	59104
	Male	34529	...	...	...	...
	Female	33884	...	...	...	...
Montserrat	Both Sexes	359	302	224	...	...
	Male	173	155	116	...	...
	Female	186	147	108	...	...
St.Kitts and Nevis	Both Sexes	2426	1156	1170	944	...
	Male	1264	608	583	495	...
	Female	1162	548	587	449	...
St.Lucia	Both Sexes	4240	3958	3944	3643	3652
	Male	2165	1985	1981	1792	1857
	Female	2075	1973	1963	1851	1795
St.Vincent and the Grenadines	Both Sexes	...	3327	3075	...	...
	Male	...	...	1574	...	...
	Female	...	...	1501	...	...
Trinidad and Tobago	Both Sexes	32858	25151	29869	26983	25072
	Male	16744	12755	15169	13886	12754
	Female	16114	12396	14700	13097	12318
Turks and Caicos Islands(d)	Both Sexes	...	185	174	235	192
	Male	...	98	90	131	115
	Female	...	87	84	104	77

(a) For Antigua and Barbuda and the Bahamas, the sum of the number of males and females does not always agree with the total number given for both sexes, due to the fact that in some instances, no indication of sex at birth was given at the time of registration.
(b) 1971 data (c) 1964 data (d) These figures exclude births which take place outside of the country. These births may account for a significant proportion of the total number of births.
SOURCES: United Nations Demographic Yearbooks and National Statistical Reports.

However, the magnitude and pace of decline varied from one country to another and wide variations in fertility levels among countries can still be encountered. For example, Aruba, Barbados, Bahamas, Bermuda, Cuba and Martinique have reached fertility levels close to or below replacement levels in contrast to other countries such as Belize and Haiti, with total fertility rates in the range of about 5.0 to 6.0 per woman. The average rate in the Eastern Caribbean countries (such as Saint Lucia, Saint Vincent and the Grenadines and Grenada) is about 3.8 children per woman.

On the whole, fertility is expected to decline further in the coming decade at a pace that will vary from country to country. The impact will create significant changes in the age structure of the populations of the countries.

Total Births

Despite the observed decline in fertility rates, the absolute annual number of births over the years has either continued to increase or remain unchanged in many countries within recent years. This is largely due to the changes in the age structure of the population and the resultant rising proportion of women in childbearing ages. It is only very recently that the numbers are showing signs of declining in some countries, with the exception of Belize and the Bahamas, but the decreases are not yet clear-cut.

On the whole, given the fact that the number of women in childbearing ages is not expected to decrease until well into the 2000s, the rate of decline in the number of births is expected to be small and the pace slow.

Variation by age

Although the age specific fertility rates followed a pattern of change similar to that of the total fertility rate, the rate of decline over the past two decades varied by age group among countries. Generally, it is among the older age groups that the greater decreases occurred. Among teenagers,

the fertility levels seem resistant to declines until quite recently, and even then, the rates of decrease have been much slower than those of the rest of the women in other age groups. Only in a very few countries is the teenage rate half of its previous size in the 1970s - Bahamas, Barbados, Saint Lucia and Saint Vincent and the Grenadines. Thus, the way in which the changing age-specific fertility rates interact with each other will be an important factor in shaping new fertility patterns.

TABLE 6 : PERCENTAGE OF BIRTHS TO WOMEN BY AGE GROUP FOR SELECTED YEARS

	Ages at High Risk						Middle Age Group		
	15-19 yrs			35 years and over			20-34 years		
COUNTRY	1960	1980	1988	1960	1980	1988	1960	1980	1988
Bahamas	13.6(a)	40.9	16.9	12.1(a)	7.8	7.7	74.3(a)	51.3	75.4
Barbados	18.7	23.2	14.1	13.2	4.8	7.5	68.1	72.0	78.4
Jamaica	17.4	27.4	24.8	13.0	7.8	7.0	69.6	64.8	68.2
Saint Lucia	17.2(b)	28.7	22.0	16.2	8.0	8.0	66.6	63.3	70.0
Trinidad & Tobago	16.6	18.2	12.8	11.8	7.5	9.0	71.6	74.3	78.2

(a) 1970 (b) 1964
SOURCE: Regional Digest of Selected Demographic & Social Indicators,1960-1990. ECLAC/CELADE Demography Unit, Port of Spain, Trinidad.

TABLE 7: AGE - SPECIFIC FERTILITY RATES BY COUNTRY, 1970 - 1990

COUNTRY / YEAR	15 -19 yrs.	20 - 24 yrs.	25 - 29 yrs.	30 - 34 yrs.	35 -39 yrs.	40 - 44 yrs.	45 -49 yrs.	Total Fertility Rate
Bahamas								
1970	93.9	234.9	210.8	145.2	99.4	37.9	-	4.1
1980	86.2	158.4	147.8	99.7	48.1	16.6	-	2.8
1987(a)	48.8	107.5	126.2	98.8	32.5	12.5	-	2.1
Barbados								
1970	94.3	163.8	156.2	101.8	60.3	24.8	3.8	3.0
1980	70.7	110.4	95.5	62.6	24.0	8.2	3.6	1.9
1988(a)	44.4	87.4	88.4	62.8	26.9	4.5	-	1.6
Belize								
1970	142.6	310.4	303.3	240.7	173.5	75.7	9.0	6.3
1980	156.2	299.3	274.2	193.8	139.1	56.0	4.8	5.6
1988(a)	125.4	256.8	232.1	177.4	143.5	50.5	6.0	5.0
Dominican Republic								
1970 - 1975	116.7	282.1	262.3	226.0	159.4	65.3	13.6	5.6
1980 - 1985	100.8	242.9	218.9	162.0	104.6	37.5	11.4	4.4
1990 - 1995	83.0	225.8	197.4	136.0	79.9	25.4	6.6	3.8
Grenada								
1970	141.5	262.2	227.3	138.4	61.8	20.0	1.6	4.3
1980	115.8	177.4	165.8	118.1	70.2	21.6	1.7	3.4
1987(a)	98.5	205.0	252.0	191.7	120.2	32.4	1.2	4.5
Jamaica								
1970	...	...	...	...	...	...	...	...
1980	128.9	194.9	157.7	112.9	70.9	26.8	4.0	3.5
1989(a)	100.0	161.0	130.0	93.0	59.0	31.0	5.0	2.9
St. Kitts and Nevis								
1970	...	...	...	...	...	...	...	...
1980	130.0	176.3	157.6	103.1	76.7	27.1	-	3.4
1988(a)	88.8	154.1	160.7	106.3	40.5	7.9	1.1	2.8
St. Lucia								
1970	159.3	424.3	348.7	254.1	133.9	35.9	2.5	6.3
1980	146.8	217.6	183.5	125.5	84.8	30.5	3.7	4.0
1989(a)	86.4	184.0	189.2	127.3	75.1	25.2	1.2	3.4
St. Vincent and the Grenadines								
1970	180.9	344.6	285.7	216.9	135.8	51.9	5.9	6.1
1980	145.4	220.3	188.7	134.5	65.4	22.4	5.4	3.9
1987(a)	91.5	158.3	165.7	117.8	77.0	14.4	1.0	3.1
Trinidad and Tobago								
1970	88.5	206.6	175.5	123.8	83.3	29.1	4.6	3.6
1980	84.0	178.0	173.7	121.7	63.2	17.9	2.6	3.2
1989(a)	70.3	136.3	134.6	96.8	53.0	14.1	1.2	2.5

(a) Most recent estimate.
SOURCES: National Statistical Reports and United Nations Demographic Yearbooks.

Important explanatory factors accounting for the marked changes and regional differentials in childbearing levels among countries over the past quarter century include a combination of biological, social and

TABLE 8: TOTAL FERTILITY RATES BY COUNTRY, 1950 - 1990

COUNTRY	1960	1970	1980	1990
Bahamas	6.3	4.1	2 .8	2.1(i)
Barbados	4.7	3.0	1.9	1.6(a)
Belize	...	6.3	5.6	5.0(a)
British Virgin Islands	...	3.6	2.8	...
Cuba	4.7(d)	3.5(e)	1.9(f)	...
Dominica	7.4	6.6	4.2(g)	...
Dominican Republic	7.4(h)	5.6(e)	4.4(f)	3.7(a)
Grenada	6.3	4.3	3.4	4.5(i)
Guyana	...	...	3.2	2.8(c)
Haiti	6.2(d)	5.8(e)	5.1(f)	6.4(l)
Jamaica	...	...	3.5	2.9(c)
Montserrat	5.2(k)	4.1	2.4	2.3(j)
Puerto Rico	4.4(d)	3.0(e)	2.6(f)	...
St. Kitts and Nevis	6.8	5.4	3.4	2.8(a)
St. Lucia	6.7	6.3	4.0	3.4(c)
St. Vincent and the Grenadines	7.3	6.1	3.9	3.1(i)
Suriname	6.6(d)	5.3(e)	3.6(f)	...
Trinidad and Tobago	5.6	3.6	3.2	2.5(c)

(a) 1988 (c) 1989 (d) 1960-1965 (e) 1970-1975 (f) 1980-1985 (g) 1981 (h) 1955-1960 (i) 1987 (j) 1985 (k) 1960-1964 (l) 1985-1987.

SOURCES: National Statistical Reports; United Nations Demographic Yearbooks; Plantification familiale, fecondite et sante en Haiti, 1983 (Department de le sante publique et de la population/Westinghouse Public Applied Systems, 1985); M. Cayemittes et A. Chanarazarian: Survie et sante de l'enfant en Haiti (Institut Haitien de l'Enfance, 1989).

economic influences such as: (i) improvements in public and environmental health which have reduced infant and child morbidity and mortality due to infectious diseases; (ii) improved nutrition for children in the region due to greater public awareness and public education campaigns; (iii) the greater involvement of women in the education and occupational sectors that may have improved their ability to determine their reproductive preferences;(iv) the role of family planning programmes; and (v) the potential role of migration in depleting the reproductive age cohorts in the region and in influencing the reproductive patterns of actual and potential migrants.

Among these factors, the rapid rise in contraceptive use over the past 25 years - from roughly 10 per cent to 50 per cent among women in union - emerges as the most important factor responsible for the fertility declines observed. But, in recent years, increased incidence of induced abortions seem to account for an unknown, but apparently substantial part of these declines. (Jagdeo, 1992).

Other behavioural and biological causes include changes in union status patterns and altered fecundity/sterility levels. It appears that unstable unions or "visiting unions" in the region are playing an important role in decreasing fertility levels among adolescents in the Caribbean. It seems that sexual exposure among teens in these unions is shorter than among women in more stable unions, that is, married women, and women in common-law type of unions.

Other important socio-economic factors include: education levels, whether women worked or did not work before their first birth as well as rural compared to urban residence. (Singh 1983; Abdullah 1984).

Contraceptive Prevalence

Contraceptive prevalence rates in the region remain low and may be stagnating.

With contraceptive prevalence rates ranging between 40 to 60 per cent of women in union, most countries of the region are still far from levels of developed countries (75-80 per cent). Only two countries in the region, Cuba and Puerto Rico, approach these rates. Further, it appears that contraceptive prevalence may well have stagnated around 50 to 55 per cent of women in union in the 1980s for several countries with adequate data - Jamaica, Trinidad and Tobago and Barbados.

The reasons for such a lag, 20 to 25 percentage points behind "satisfactory" contraceptive use, are not clear. It is possible that the impact of family planning programmes may be reaching a "plateau". The programmes are also facing some resistance within the population, as some people are refusing, consciously or unconsciously, to adopt the "small" family norm already accepted by other segments of the society.

It is possible that this resistance from certain segments of the population could be linked to certain socio-economic factors. This is indicated in Figure 3B which illustrates a clear relationship between employment and contraceptive use for most countries.

TABLE 9:
CONTRACEPTIVE PREVALENCE RATES BY SPECIFIED YEAR

Country	Rate(%)	Year
Cuba	68	1980
Dominican Republic	50	1986
Puerto Rico	70	1982
Haiti	7	1987
Jamaica	52	1983
Trinidad & Tobago	53	1987
Barbados	55	1988
Guyana	31	1975
St Vincent & the Grenadines	58	1988
Grenada	31	1985
St.Lucia	47	1988
Dominica	50	1987
Antigua	53	1988
St.Kitts/Nevis	41	1984
Montserrat	53	1984
Bahamas	62	1988
Guadeloupe	44	1976
Martinique	51	1976

Source: Demographic Trends and Issues, Jean-Pierre Guengant, 1992.

However further research and data collection are needed to increase the understanding of these causes.

Family Planning

Family Planning services began around the late 1950s and early 1960s in most Caribbean countries. By 1980 all of the countries with the exception of Guyana and Suriname were offering family planning services as part of the government's health services, with the additional aim of promoting maternal and child health.

Family planning goals and strategies were incorporated into the explicit population policies of some countries during the late 1980s. In addition, a number of countries, including Barbados, Dominican Republic, Jamaica, Trinidad and Tobago, Grenada and St. Vincent and the Grenadines established quantitative targets for reducing fertility which have been incorporated into their five year plans.

In an effort to increase the number of contraceptive users, some countries have begun to adopt an integrated approach to programming through collaboration with different organisations in population related activities. This is illustrated in the case of Jamaica and Antigua where, for example, family planning programmes are networking with programmes related to youth skills training, and breastfeeding.

The savings to government through the use of family planning services were estimated in a cost-benefit study for Jamaica which found that during the period 1970-89, the government saved J$3 billion on health, and J$2.8 billion on education. However, these economic gains could be wiped out if financial inputs into the programme were reduced as a result of the impact of structural adjustment programmes and related cuts in government expenditure on social services coupled with the reductions in external donor funding. The need for greater private sector investment in

family planning and related health care is therefore essential to offset these impending losses.

Need For Family Planning Services[1]

Estimates of need for family planning services indicate that approximately one in every five women are in need of these services. The proportion is higher for Trinidad and Tobago (approximately one in every three) and markedly lower for Antigua and Bahamas (table 9B). "Women in need " are defined as those who did not want a child within a year, were fecund, non-pregnant and in-union but were not using a contraceptive method at the time of the survey.

Data from the Caribbean contraceptive prevalence surveys do not reveal any profound variations among different socio-economic groups with the exception of women in visiting unions. Approximately 35-45 percent of these women are in need of family planning services in comparison to an average of 20 percent for other unions in most countries. In a few countries (Antigua and Dominica), similarly high proportions in need can be found among common law unions. This large proportion in need among visiting unions could be the result of the unstable nature of the living arrangements of these unions that make it difficult to organise stable contraceptive practices (Jagdeo, 1990).

Contraceptive Awareness

The level of contraceptive awareness as well as knowledge of outlets have improved considerably during the decade of the eighties and is now almost universal for most countries. Thus ignorance of contraceptives does not represent a barrier to contraceptive use in the Caribbean. These changes over the decade could be considered an indicator of improvement in the quality of family planning services.

On the other hand, too many adolescents are still insufficiently aware of the full range of contraceptive choices available and at least one-fifth are totally

unaware of contraceptives (Jagdeo, 1990). This points to the need to accelerate the development of contraceptive information programmes for teenagers. Table 9C.

Contraceptive awareness also seems to vary with socio-economic status and, in most countries, women's employment and union status appear to be the most important predictors of knowledge of any method (Jagdeo, 1990).

Preference For Specific Methods

Current patterns of use suggest that the pill continues to be the predominant method of choice in the Caribbean, accounting for as much as 50 percent of all users in some countries such as Antigua, Bahamas and Barbados. Tubal ligation ranks second in all cases accounting for approximately one-fifth of all users. Use of the injectable and condom varies as the third method of choice among the different countries. Table 9D.

Although this order of preference has remain unchanged since the beginning of the eighties, the proportion of women using each method has changed substantially. For example, marked increases in the use of the pill and injectable were experienced by all countries during the decade of the eighties. Increases in the use of the pill rose by approximately 15 to 20 percent while changes for injectables were as much as threefold, as in the case of St. Lucia. Parallel to the increases for these methods were declines in the use of tubal ligation and condoms in all countries except Dominica and Antigua where use of condoms has risen instead.

The reasons for these decreases remain somewhat unclear. The decline in the use of condoms is especially alarming in light of the widespread AIDS campaigns. On the other hand, a possible explanation given has been that the data are based on female reports on condom use by partners within stable relationships only (Jagdeo,1990). In the case of tubal ligations, it has been suggested that the earlier rise could have

occurred in response to a campaign for use of the method which is no longer in existence.

Preference for different types of methods vary strongly with age and union status. The pill is a popular method of choice only up to age 29 after which women begin to select other methods of a more permanent nature such as tubal ligation and injectable. By age 30-34, the proportion using the pill is almost halved in direct response to a more than tenfold increase in the women using tubal ligation. The use of injectable doubles for women age 20-29 then falls off sharply as it gives way to the use of tubal ligation also. Table 9E.

Marked variations in the choice of method also exists among women according to their union status. Tubal ligation appears to be the more popular choice among women in married unions. In the case of St. Vincent, more than half the married women are using tubal ligation. This is probably due to the fact that they are older and would have already achieved their fertility preference. Table 9F.

Although use of condoms has an overall low level, an interesting observation is the higher level of condom use among adolescents and women in visiting unions. In Barbados, the proportion age 15-19 using condoms almost tripled between the period 1981 to 1988. This phenomena is probably related to the impact of the marketing campaigns promoting the use of condoms among adolescents to avoid pregnancy as well as reduce the spread of AIDS. It is also connected to the unstable nature of the visiting unions which predominate among the adolescent age group.

Reasons For Non-Use

Despite the almost universal knowledge of family planning displayed, there is, nevertheless, a significant gap between knowledge and use of modern methods even among women wanting to delay or terminate childbearing. Many surveys have found that the main reason

for this gap has been fear among women about the side effects and safety of using the different contraceptive methods. Lack of knowledge among adolescents about the human reproductive system, and limited information related to the use and appropriateness of various contraceptives for differing age groups represent obstacles to good fertility management (Chevannes, 1992). In addition, lack of trained providers for long-term and permanent methods at all levels of the health care system limit the amount of information women can receive relative to their decision to choose a method.

This is also clearly illustrated in the data for non-users. Data from the Caribbean Contraceptive Prevalence Surveys indicate that drop-outs are largely a function of the contraceptive rather than the contraceptor and that the ability of the users to cope with the stresses of contraceptive use explains more of the variation in drop-out rates than the socio-economic characteristics of the individual used in the surveys.

This finding is also reinforced in the analysis of committed non-users. As illustrated in Table 9G, fear of contraceptive side effects constituted the major reason for non-user opposition to family planning. An aversion to "putting things inside the body" represented the second most important reason. Religious convictions also played a significant but smaller role in influencing opposition to contraceptive use.

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[1] *Data and information on family planning discussed in the following sections are taken from the Reports on the IPPF/WHR Caribbean Contraceptive Surveys for nine countries, by Tirbani Jagdeo, 1990.*

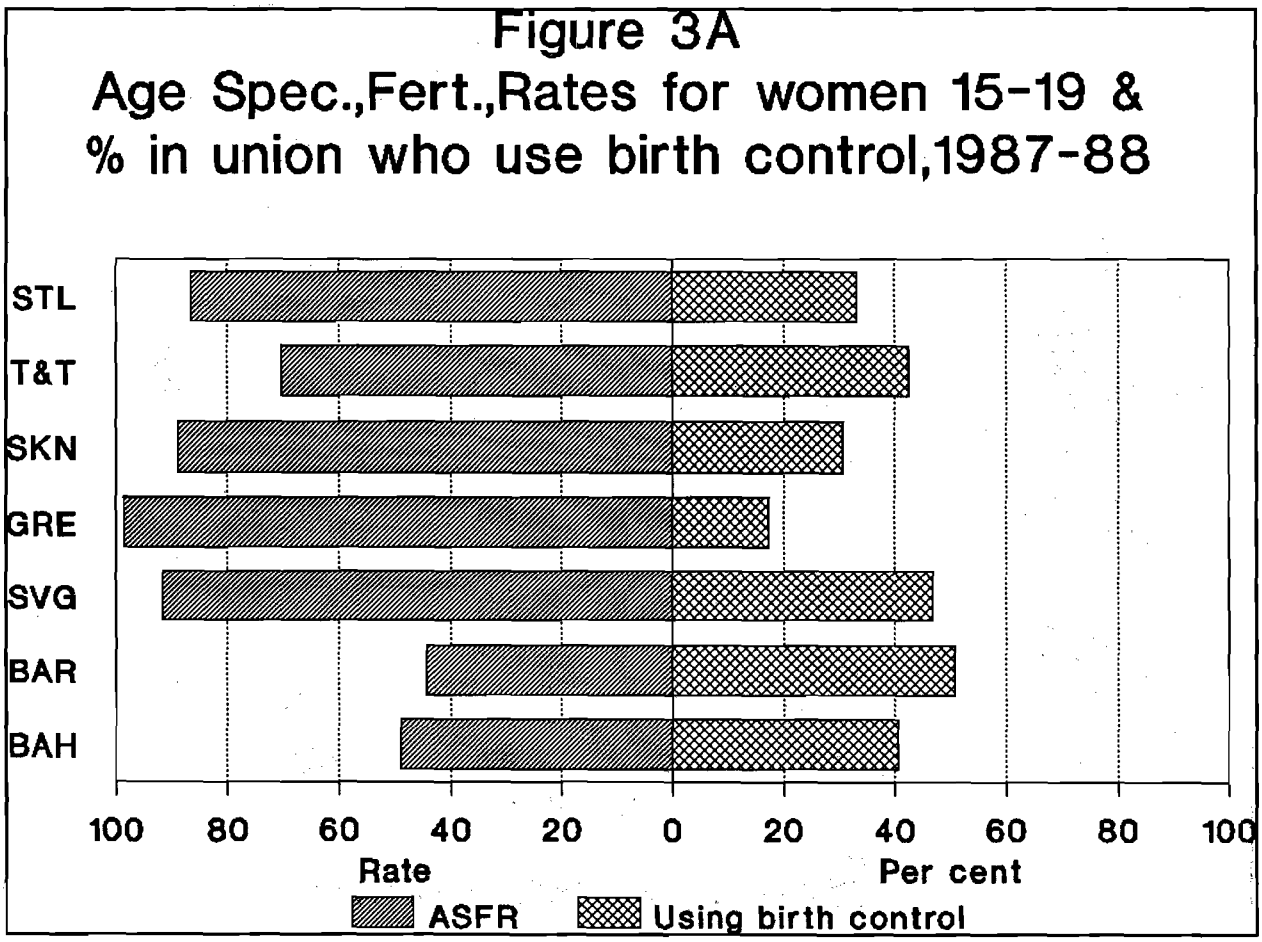
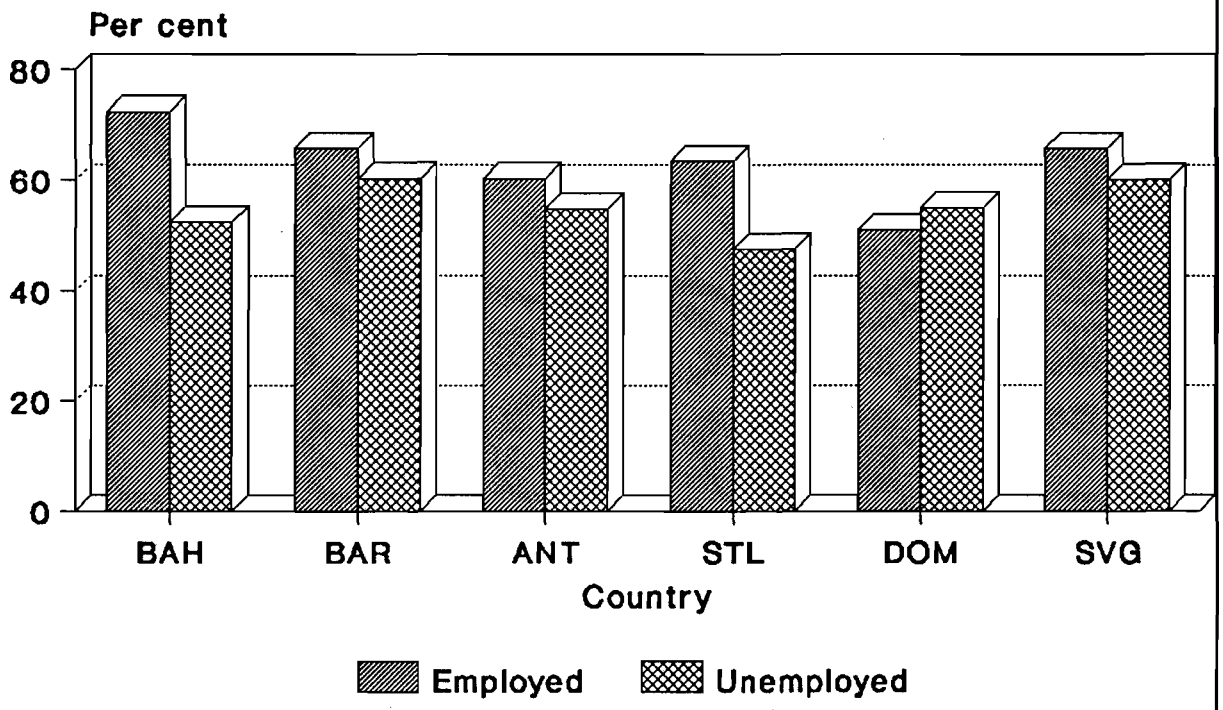


Figure 3A
Age Spec.,Fert.,Rates for women 15-19 &
% in union who use birth control,1987-88
STL
T&T
SKN
GRE
SVG
BAR
BAH
100
80
60
40
20
0
20
40
60
80
100
Rate
Per cent
ASFR
Using birth control

Figure 3B
Contraceptive Use among women* aged 15-44,by employment status,1987-88



* Fecund and in-union women

TABLE 9A: Mean parity among in-union women by age and education, 1987/88.

Country/education	Age					
	15-19	20-24	25-29	30-34	35-39	40-44
St.Vincent and the Grenadines						
Primary	0.75	1.6	2.5	3.6	4.4	6.1
Secondary	0.18	1.0	1.8	2.3	2.6	-
Dominica						
Primary	0.50	1.3	2.5	3.5	3.8	4.8
Secondary	0.10	0.7	1.4	2.4	3.7	3.9
Antigua						
Primary	0.80	1.5	2.2	2.7	3.2	-
Secondary	0.30	0.8	1.8	2.7	2.7	-
Bahamas						
Primary	1.60	2.0	2.6	3.3	3.9	3.3
Secondary	0.20	0.9	1.6	2.2	2.8	4.0
Barbados*						
Primary	0.10	0.6	2.1	2.1	<- 2.2(a) ->	
Secondary	0.08	0.4	1.0	1.7	<- 2.0(a) ->	
St.Lucia						
Primary	0.50	1.6	2.5	3.6	4.4	4.9
Secondary	0.20	0.6	1.2	2.1	1.3	4.3

*All women (a) 35-44

Source: IPPF/WHR, Caribbean Contraceptive Prevalence Surveys-T.Jagdeo,1990

TABLE 9B: Percentage of women 15-44 in need of family planning services, 1987/88.

Country	Percentage		
	In need*	Not in need	Total
Barbados	21.7	78.3	100.0
St.Vincent and the Grenadines	20.3	79.7	100.0
Dominica	26.7	73.3	100.0
Antigua	16.9	83.1	100.0
Bahamas	14.3	85.7	100.0
St.Lucia	25.2	74.8	100.0
Trinidad and Tobago(a)	32.5	67.5	100.0

* A woman was defined to be in need of family planning if she did not want a child within a year and was non-pregnant, fecund, sexually active and not using a method at the time of the survey.

(a) women 15-49

Source: Demographic and Health Survey,1987,Trinidad and Tobago-K.Heath et al. IPPF/WHR, Caribbean Contraceptive Prevalence Surveys-T.Jagdeo,1990.

TABLE 9C: Awareness of contraceptive methods for women 15-44, 1987/88 survey.

	Awareness of methods			
Country	None	1-5	6-10	Total
Trinidad and Tobago*	2.7	<- 97.3 ->		100.0
Grenada	8.1	42.4(b)	49.5(c)	100.0
St.Lucia	0.7	33.6	65.7	100.0
Bahamas	1.7	16.8(b)	81.5(c)	100.0
St.Vincent and the Grenadines	1.4	16.2	82.4	100.0
Dominica	3.9	34.5	61.6	100.0
Antigua	3.0	29.1	67.9	100.0
Barbados	1.2	12.6	86.2	100.0

(a) 1-10 (b) 1-4 (c) 5-10 * women 15-49

Source: Demographic and Health Survey,1987,Trinidad and Tobago,K.Heath et al.
IPPF/WHR, Caribbean Contraceptive Prevalence Surveys-T.Jagdeo.

TABLE 9D: Use of specific methods of family planning among women in union aged 15-44, 1987/88.

Country	Year	% Use	Pill	IUD	Injection	Condom	Female sterilization	Male sterilization	Safe method	Withdrawal	Vaginal methods	Other
Trinidad and Tobago*	1987	52.7	14.0	4.4	0.8	11.8	8.2	0.2	2.6	5.3	5.0	0.4
St.Lucia	1988	47.3	17.4	4.1	6.9	5.3	7.2	-	1.2(a)	-	1.5	3.7
St.Vincent and the Grenadines	1988	58.3	24.5	2.6	6.8	7.6	13.4	...	...	...	...	3.4
Dominica	1987	49.8	17.3	1.6	11.2	5.9	11.9	...	...	...	...	1.9
Barbados	1988	55.0	25.8	6.2	0.8	7.0	10.2	0.2	0.8	0.9	3.1	-
Bahamas	1988	61.7	31.6	3.7	4.7	2.4	16.4	-	1.5	1.4	-	-
Antigua	1988	52.6	26.5	1.2	3.2	5.6	11.5	-	0.4	1.2	3.0	-

(a) includes withdrawal * women 15-49.

Source: Demographic and Health Survey,1987-K.Heath,et al.
IPPF/WHR,Caeribbean Contraceptive Prevalence Surveys-T.Jagdeo,1990.

TABLE 9E: Percentage Distribution of methods used by current contraceptors aged 15-44 by age,1987/88.

Country/Age	Current Method					
	Pill	Condom	Tubal Ligation	Injectable	IUD	Other
St.Vincent and the Grenadines						
Age						
15-19	59.8	26.8	3.1	4.1	-	6.2
20-24	58.4	12.3	2.6	11.0	3.9	11.8
25-29	46.0	8.1	8.9	22.6	7.3	7.1
30-34	30.8	9.6	39.4	13.5	6.7	-
35-44	7.7	9.7	72.0	4.8	3.9	1.9
Antigua						
Age						
15-19	55.0	22.9	0.9	9.2	...	11.9
20-24	68.9	12.8	1.7	7.2	...	9.4
25-29	59.8	2.9	15.7	7.8	...	13.7
30-34	37.7	10.4	33.8	3.9	...	14.3
35-44	19.7	4.8	59.9	2.7	...	12.9
Barbados						
Age						
15-19	53.3	33.3	-	-	2.2	11.2
20-24	72.2	12.4	2.5	3.1	3.7	6.1
25-29	60.7	13.6	7.9	1.4	12.1	4.2
30-34	38.0	7.4	23.1	1.6	16.5	13.3
35-39	27.1	9.4	36.5	2.1	15.6	9.4
40-44	4.0	2.0	84.0	-	4.0	6.1

Source: IPPF/WHR, Caribbean Contraceptive Prevalence Surveys-T.Jagdeo,1990.

TABLE 9F: Percentage distribution of methods used by current contraceptors aged 15-44 by union status,1987/88.

Country/Union status	Current Method					
	Pill	Condom	Tubal Ligation	Injectable	IUD	Other
St.Vincent and the Grenadines						
Married	19.4	9.3	54.6	6.5	6.5	10.2
Common Law	41.6	9.0	23.0	16.9	5.1	4.4
Visiting	53.6	18.0	5.0	10.7	3.8	8.9
Antigua						
Married	29.2	9.2	53.8	3.1	...	4.6
Common Law	43.0	3.4	32.2	6.0	...	15.4
Visiting	57.9	14.4	10.6	6.5	...	10.6
Barbados						
Married	41.0	7.0	25.0	2.0	12.0	13.0
Common Law	40.0	9.1	28.5	1.8	13.9	6.6
Visiting	56.1	18.5	9.4	1.7	5.7	8.6
St.Lucia						
Married	20.9	5.5	38.5	18.7	8.8	7.7
Common Law	40.5	6.8	26.4	13.5	8.1	4.7
Visiting	44.6	18.9	3.9	16.1	9.8	6.7

Source: IPPF/WHF, Caribbean Contraceptive Prevalence Surveys-T.Jagdeo,1990.

TABLE 9G: Percentage distribution of current non-users and reasons for non use,1987/88

Country	Reasons for non-use of contraceptives		
	Religious reasons	Fear of side effects	Aversion to putting things inside the body
St.Vincent and the Grenadines			
Yes	16.7	62.8	46.2
No	83.3	37.2	53.8
Total	100.0	100.0	100.0
Dominica			
Yes	18.9	71.5	64.3
No	81.1	28.5	35.7
Total	100.0	100.0	100.0
St.Lucia			
Yes	14.4	68.5	64.8
No	85.6	31.5	35.2
Total	100.0	100.0	100.0
Bahamas			
Yes	7.2	42.2	42.2
No	92.8	57.8	57.8
Total	100.0	100.0	100.0
Antigua			
Yes	10.1	63.3	52.7
No	89.9	36.7	47.3
Total	100.0	100.0	100.0
Barbados			
Yes	3.2	65.2	54.4
No	96.8	34.8	45.6
Total	100.0	100.0	100.0

Source: IPPF/WHR, Caribbean Contraceptive Prevalence surveys-T.Jagdeo,1990.

SECTION THREE

ADOLESCENT FERTILITY

ADOLESCENT FERTILITY

1.0 SOCIO-ECONOMIC CONTEXT

Understanding Teenage Problems

Any study seeking to explain or understand the reproductive behaviour of adolescent fertility needs to be broad in scope and should attempt to incorporate some of the major socio-economic problems faced by the teenage population in the context of today's changing society. These include:
(i) limited and inadequate educational facilities, especially at the secondary education level; (ii) the resultant large proportion of youth aged 14-16 out of school, without adequate skills for employment; (iii) the rapid growth of the working population and related high levels of unemployment, especially among the youth; (iv) delinquency and drug-related problems; (v) changing attitudes and values towards early sexual exposure and childbearing; and (vi) lowered standard of living among teenage mothers and the resultant economic deprivation suffered by both mother and children.

Population Growth and School Enrolment

Better education and increased participation in the labour force are considered to be key paths towards improvements in the status of women and possibly fertility declines. It would, therefore, be instructive to examine the educational achievements and employment activities of the young people.

In general, despite the rapid population growth of the past three decades and the resultant doubling of the population in the 15-19 age group, (Table 10) impressive gains have been achieved in the provision of increased schooling to a larger number of students. Overall, in 1980, about 98 per cent of adolescents completed at least primary schooling (approximately 7 years of schooling). A similar picture of gain, though less outstanding, emerges for the secondary school achievements. Figure 4 for Saint Lucia represents the general

TABLE 10 : POPULATION AGED 15-24 BY COUNTRY 1960-1990/1991

COUNTRY	YEAR			
	1960	1970	1980	1990/91
Bahamas	21518	27283	46914	48428(a)
Barbados	38018	45150	52523	...
Belize	14681	20820	29914	37047(b)
British Virgin Is	1258	2038	2061	...
Dominica	9809	11666	16398	...
Grenada	14052	17173	21026	...
Guyana	94041	136018	173788	...
Jamaica	269659	285839	235227	...
Montserrat	2040	1969	2221	...
St.Kitts/Nevis	7601	7055	10279	...
St.Lucia	15086	16368	26376	27708(b)
St.Vincent and the Grenadines	13322	15067	22310	...
Trinidad and Tobago	146140	186083	246306	209056(a)

(a)1990 census (b) 1991 census

pattern of trends for countries of the region.

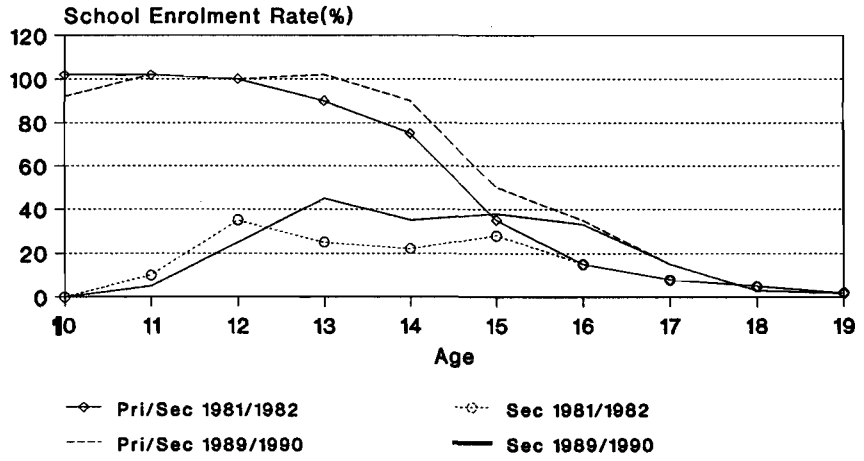
These changes in levels of schooling over the past 25 years can also be measured by comparing the educational attainment of women aged 45-49 (who were teenagers 20-25 years ago) with that of women aged 15-19. The Demographic and Health Survey of Trinidad and Tobago reveals that women now aged 15-19 are far more likely to have completed secondary education than women who were that age 20-25 years ago (87 as against 31 per cent, respectively).

Despite this evidence of progress, data shows that an unacceptably high rate of young people are dropping out of the educational system too early in their lives - a cost too serious to be ignored, given the consequences for both the individual and society. For example, in the case of Saint Lucia, although Government has made some efforts in increasing school enrolment rates over the decades, 10 per cent of the 14-year-olds and 50 per cent of the 15-year- olds who were out of the school system in 1980.

It is obvious that a great deal still needs to be done. The 1989-1990 enrolment rates evidence that the majority of children continue to leave the school system between the ages of 14 and 16, mainly at the primary level. (Table 11). At age 16, only one out of three children were in secondary schools and this rate decreased rapidly

Figure 4

Primary & Secondary School Enrolment Rates,1981/1982 and 1989/1990--ST.LUCIA



Source:Teens in a changing society, St.Lucia,J.Guengant et al.

TABLE 11: SCHOOL ENROLMENT RATES FOR PERSONS 15-19 YEARS OF AGE BY SEX FOR GRENADA, BELIZE AND GUYANA FOR THE YEARS 1970 AND 1980/1981

COUNTRY/YEAR	School Enrolment Rates									
	Age									
	15 yrs		16 yrs		17 yrs		18 Yrs		19 yrs	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Grenada										
1970	83	84	61	66	38	44	28	25	..	..
1981	77	83	54	65	33	43	23	30	14	15
Belize										
1970	42	42	31	32	25	24	13	15	..	..
1980	44	47	34	36	27	27	16	16	9	7
Guyana										
1970	64	57	44	42	31	30	20	19	..	..
1980	65	63	42	43	23	26	11	12	6	6

Source: 1980-1981 population census reports, Vol 111, Caricom

thereafter. This selective process of entry into the secondary level may constitute a mechanism for coping with the limited school places (related to the pressure exerted on the system by the rapid growth of the school age population), than a reflection of labour market needs. It should also be noted that tertiary education is still achieved by only a very small handful of the population.

Of interest, is the fact that rates of secondary school enrolment are much higher for girls than for boys, especially between ages 13 and 16.

The Labour Market

The increasing difficulties school leavers face in finding "good" jobs result from a combination of demographic

factors as well as changes in the economies of the countries of the region. Annual potential arrivals on the labour market doubled between 1946 and 1980. Because of the present age structure, yearly arrivals on the labour market can be expected to continue to increase gradually into the first few years of the next century before finally decreasing thereafter.

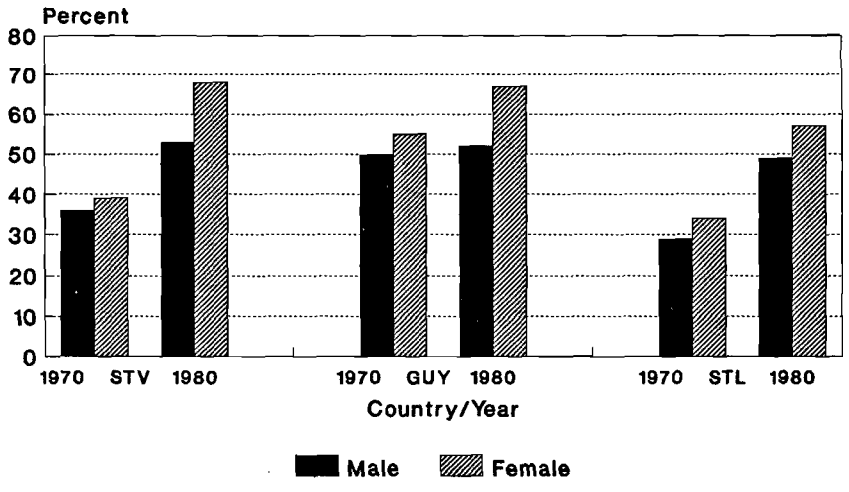
The progress of secondary school enrolment over the past decades has, to a certain extent, reduced the pressure of youth on the labour market. This is reflected in the decline in the number of young persons "at work". Trinidad and Tobago reports one of the lowest rates for women aged 15-19 "at work" (6.9), which is consonant with the very high educational attainment of this age group.(DHS,1987). Yet the girls are still at a disadvantage, since only one out of five are working compared to one out of three boys.

Despite this reduction in labour force participation, however, unemployment among youth has continued to mount. Between 1946 and 1980, the number of unemployed young persons rose by ten-fold in many countries. Between 1970 and 1980 in particular, the unemployment rate among the 15-19-year-olds almost doubled in many countries. In the case of St.Lucia, the rate rose from 31 percent to 52 percent for both sexes (and from 29 percent to 49 percent for boys and from 34 percent to 57 percent for girls). The sex differentials are even more contrasting in the case of Jamaica where figures from the "Young Adult Reproductive Health Survey",(YARHS 1987), show that the level of unemployment for females aged 20-24 is twice as large as their male counterparts, 53 per cent compared to 26 percent respectively.

Figure 5 shows the unemployment rates for the 15-19 year olds by sex at the 1970 and 1980 censuses for three countries, illustrating the magnitude of the changes which occurred since the end of World War II.

Figure 5

Unemployment Rates for age 15-19 by sex
for St.Vincent/Guyana/St.Lucia,1970&1980



Source:CARICOM 1980-81 Population Census of the Commonwealth Caribbean. Vol. III.

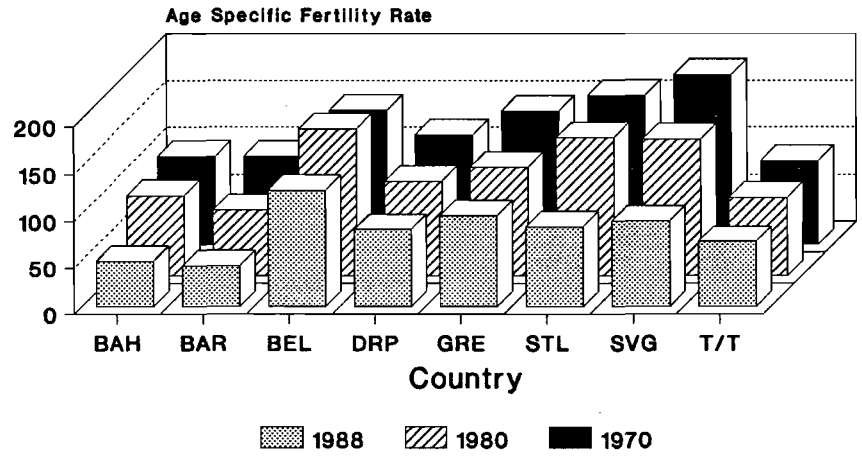
NOTE: Country abbreviations used in the graph above are as follows: STV - Saint Vincent and the Grenadines; GUY - Guyana: STL - Saint Lucia.

A factor of concern relates to a significant proportion of 14 to 19-year-olds who are not students, not working and are not seeking employment. These "unattached" groups identified in the Jamaica YARHS Survey represent 10 per cent of the female sample and 8 per cent of the male sample. They constitute a large enough group to generate concern for the vulnerability of these young "at-risk" groups relative to education, employment and other population-related policies.

2.0 ADOLESCENT FERTILITY

Although achievements in fertility decline are considered impressive in the Caribbean, there still remains a number of factors of concern, among which unacceptably high teenage pregnancy and low stagnating contraceptive prevalence stand out as key issues.

Figure 6
Teenage Fertility Rates
1970-1988



Source:Regional Digest of Selected Demographic & Social Indicators. ECLAC/CELADE P.O.S

NOTE: Country abbreviations used in the graph above are as follows: BAH - The Bahamas; BAR - Barbados; BEL - Belize; DRP - Dominican Republic; GRE - Grenada; STL - Saint Lucia; SVG - Saint Vincent and the Grenadines; T/T - Trinidad and Tobago.

The aim of this section is to provide information relating to the various issues of adolescent fertility in the region. The framework of analysis is one in which teenage fertility rates are seen as the consequence of interacting factors of proximate determinants and socio-economic variables. Thus, differences in observed levels of teenage fertility are explained in terms of sexual exposure, pregnancy, prevalence of union status and contraceptive use. Residential and educational differences are noted where data are available.

On the whole, data on factors relating to adolescent reproductive behaviour are still very limited, despite the fact that high teenage fertility continues to constitute a serious issue of concern among Caribbean governments. The main sources of data for this section

derive from the following:(i) Demographic and Health Survey for Trinidad and Tobago, 1987; (ii) Young Adult Reproductive Health Survey, Jamaica, 1987; (iii) Contraceptive Prevalence Surveys for Grenada, Saint Lucia and Saint Kitts, 1987 (T. Jagdeo); (iv) "Teens in a Changing Society - Saint Lucia", 1991 (Guengant et. al., 1991). Since the samples on which the estimates are based are not necessarily comparable across countries, the observed differences should be interpreted with caution.

TABLE 12:
Comparison of numbers of births in relation to the proportion of women in age groups

ST.LUCIA,1988 AND JAMAICA,1987

Country	Proportion of total births	Proportion of women
ST.LUCIA:		
15-19 years	24	21
35-49 years	7	27
JAMAICA:		
15-19 years	26	24
35-49 years	7	24

Source:UN/ECLAC REGIONAL DIGEST,1991

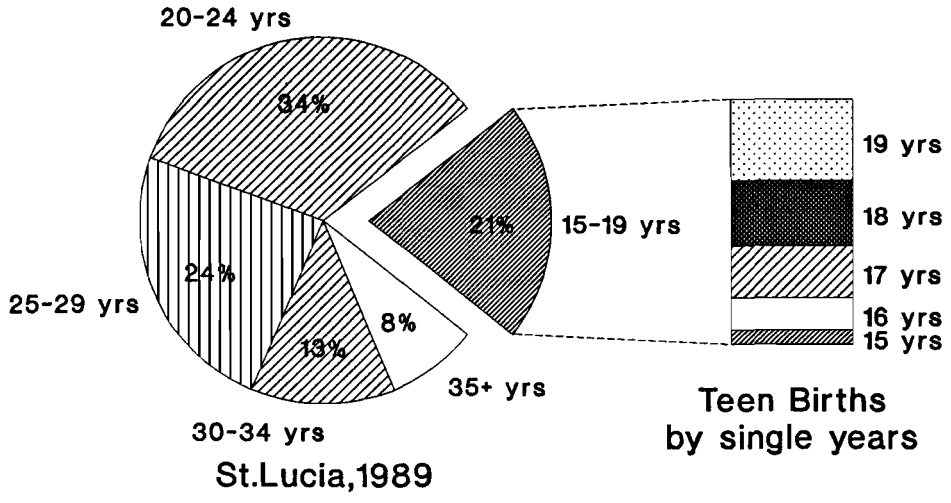
Numbers, Proportions and Rates

Annual numbers of births to teenagers doubled from the early 1950s to the early 1980s, before declining in the late 1980s for most countries, except Belize and Haiti which continue to register increases. Births to women aged 20-24 years also increased during that period, though more modestly. By contrast, births among women aged 25-29 years remained more or less stable while those among women above 30 started to decline in the 1960s. As a consequence, there was a continuous rise in the proportion of births to teenagers, from approximately 20 per cent in the early 1950s to almost 30 per cent in the early 1980s, followed by declines in the range of 15-20 per cent in the late 1980s. It should be noted that the latter declines being experienced are still too recent to be considered a definite trend. The earlier increase in

teenage births are due, in large part, to the concomitant rise in the absolute numbers of teenagers over the same period.

The importance of excessive teenage births can also be illustrated in a comparison of the ratio of teenage births to the proportion of births in other age groups. As illustrated in the case of Saint Lucia, among the women of childbearing ages 15-49 in 1988, about 21 per cent were teenagers aged 15-19 while about 27 per cent were women aged 35-49. In contrast, among the births registered during the nine-year period 1980-1988, 24 per cent were from teenage mothers and only 7 per cent from mothers over 35 years.(Table 12). (Guengant et al., 1991). A similar pattern also exists for Jamaica.(1987 YARHS Survey).

Figure 7
Proportion of live births by age group,
St.Lucia, 1989



However, an analysis of the five-year age group fertility rates, which relates the number of births to the actual numbers of women for each age group, gives a more precise picture of changing fertility patterns. (Figure 6).

Age-Specific Rate

In general, the rates for teenagers and all other age groups increased in the 1950s and the late 1960s. However, in the 1970s, the fertility rates of all age groups began to decline, but the rate of decline among teens was much slower than that for the older age cohorts. However, since the mid-1980s, it has caught up with the pace of decline of the other rates. Today, the fertility of teenagers is now somewhat lower than the fertility of their parents during their teenage years, in the 1950s.

During the 1950s, adolescent pregnancy exceeded 150 per 1000 in several countries. Today, variations exist throughout the region ranging from as low as 49 per 1000 in Barbados and Antigua to rates as high as 113 for Jamaica and 125 per 1000 for Belize.

On the whole, teenage fertility rates, though decreasing, have remained extraordinarily high. Indeed, most Caribbean countries still have rates which are 5 to 10 times higher than those observed in Canada, France or the Netherlands where teenage fertility rates now constitute a serious source of concern for a variety of medical, social and moral reasons. Further, even the lowest rates in the region, those in Martinique and Guadeloupe, are three times higher than those registered in France, and those of Aruba and Curacao are 5 times higher than the rate of the Netherlands. (Guengant, et al., 1991).

Socio-economic differentials

Fertility differentials by socio-economic status have been observed for some countries. Data for both Jamaica and Trinidad and Tobago reveal a negative relationship between education and the fertility of teens. Moreover, this relationship is more marked for the

higher education categories where adolescents who continue their education beyond the secondary level have dramatically lower birth rates than those who do not.(DHS, 1987; YARHS, 1987).

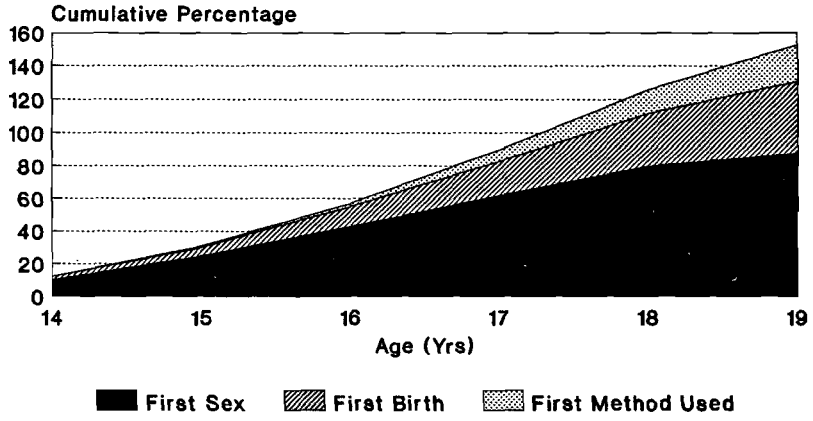
Age at first sex experience

Sexual experimentation starts fairly young in the region. More than 80 percent of the teenagers in Trinidad and Saint Lucia have already had a sexual encounter by age 20. This figure is even higher for Jamaica where the proportion for age 14 amounts to 16 per cent. This figure doubles by age 16 to 36 per cent and doubles once again by age 18 to 77 per cent. By age 20, four out of five women in Jamaica are sexually experienced. Consequently by age 20, approximately half of the girls have already had one and, in some cases, more than two children. This situation is the result of both early sexual exposure as well as the low use of contraceptives at first sex and/or in the following months. (YARHS Survey, 1987)

As women achieve education, their likelihood of becoming sexually active as teenagers decreases, although, in Trinidad and Tobago these differentials are not as pronounced, probably due to the already high levels of education that have existed over a long period of time throughout the society. In Jamaica, a similar negative relationship is shown for current employment status. The proportion that is sexually experienced is lowest for females whose status is attending school or a combination of school and work. It is highest for those who are unemployed or in part-time employment. The latter group may involve school drop-outs due to pregnancy.

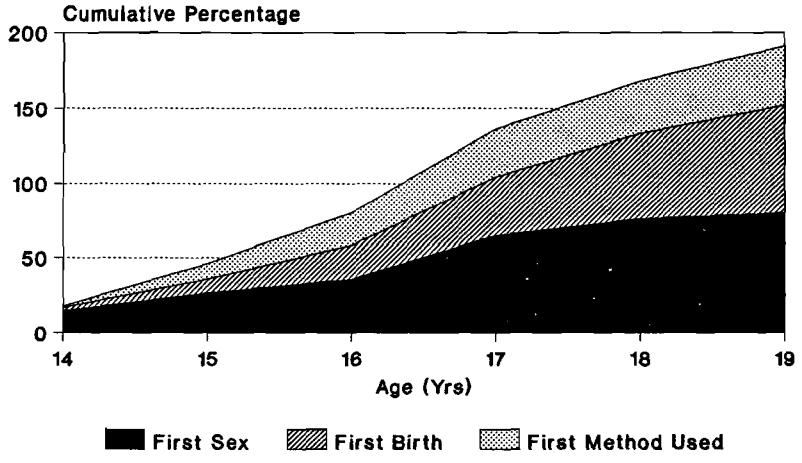
These findings suggest that higher education, work and career aspirations equip female teenagers with the resources to pursue goals that offer other attractive alternatives to pregnancy and involvement in unions. Thus, programmes aimed at the improvement of the status of women would achieve a reduction of teenage fertility. It is

Figure 8A
Reproductive & Contraceptive Behavior
Women 25-34,St.Lucia 1988



CPS Survey 1988
Source: Teens in a Changing Society
St.Lucia,J.Guengant et al.

Figure 8B
Reproductive & Contraceptive Behavior
Women 14-24,Jamaica 1987



Source:YARHS survey Jamaica 1987

significant to note that, for male teens, there is little difference in sexual experience across the education and work status categories. (YARHS, 1987).

Age at First Birth

The likelihood of having a child before the age of 20 has declined slightly in some countries of the region. Indeed, fewer young women had their first child in their teenage years than their older counterparts. In the case of Saint Lucia, 35 per cent of the young women as against 41 per cent among the older ones already had a baby before age 20. Similar lower percentages for young women in comparison to that of older ones are observed for the earliest teenage years: 4 per cent against 6 per cent at age 16, and 18 per cent as against 22 per cent at age 18 (Guengant et al., 1991). For Jamaica, there has also been a slight downward shift towards 15-19 years olds having fewer children. The average age at first birth was 18.6 years, slightly higher than that found five years earlier. The decline has been more substantial for women in Trinidad and Tobago, moving over the past 25 years from 40 to 30 percent of teens having a child before age 20.

Some variations can be found by place of residence and education. In the case of Trinidad and Tobago, women residing in urban areas delay their first birth by almost one year compared with their rural-dwelling counterparts. Variations by education are even more marked. Thus, while women with some secondary education delay their first birth by 3.4 years, those with full secondary certification delay by a further 2.5 years. Thus, the effects of modernisation do appear to exert some effect on the age at first birth for teenagers. (DHS, 1990).

School drop-outs

Although these declines are encouraging, there are other consequences of the teens' fertility behavior that warrant concern. Data from the Jamaica survey illustrate that nearly one-third of all 15-24 year olds are in school when they became pregnant with their first child. Furthermore, most of these women (81 percent) do not return to school after

TABLE 13: Percentage of girls (respondents) who had a live birth, did not return to school after delivery, and percentage of live births reported as unintended by age at first birth. Jamaica 1987 survey

Age at first birth	(%) pregnant	(%) who did not return to school after delivery	(%) of unintended live births
13-15 years	80.4	74.4	92.9
16-17 years	46.4	83.1	79.6
18-19 years	14.7	88.2	74.9
20-24 years	2.5	-	58.9
Total	32.6	80.7	76.0

Source: Young Adult Reproductive Health Survey, Jamaica, 1987: Tables 4-4 and 4-12.

giving birth. Moreover, three-quarters these females report that the birth was unintended. This reduces opportunities and life chances of the teenagers for improved education and employment. (YARHS Survey, 1987). Equally alarming is the fact that few government intervention policies and programmes exist that promote reinsertion of adolescents into the education, training and employment system.[2]

This points to a gap between government's perception of the problem and the formulation and implementation of policies to deal with the issues. The explicit population policies of five countries make reference to the problem. But there is still the need to translate the policy objectives into

[2] *The most popular and successful programme dealing with this aspect is being implemented by the Women's Centre of Jamaica.*

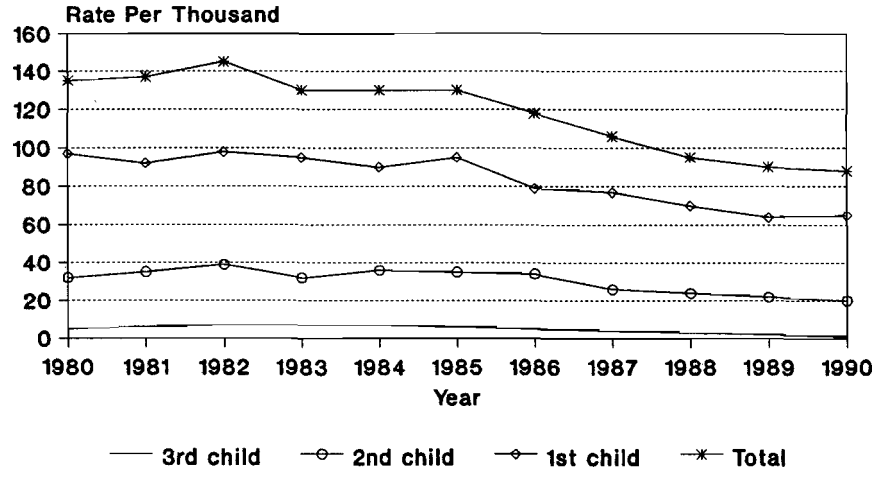
concrete programmes. All of this points to the need to continue to convince governments of the importance of integrated planning and programming.

Parity

Another issue of concern is the fact that teenage fertility in the region still comprises significant numbers of second and third parity deliveries (parity refers to the number of live births a particular woman has had to date). In the case of Saint Lucia, one out of four teenage births are of second, third and even fourth order.

On the other hand, according to the pattern of the teenage parity fertility rates between 1980 and 1990, as seen in

Figure 9
Teenage Fertility Rates by Parity
ST.LUCIA, 1980-1990



Source:Teens in a changing society,
J.Guengant et al

Figure 9, chances for teenage girls to give birth to their second or third child have declined in recent years, along with the overall decline of the teenage fertility rate.

The data for Saint Lucia show that the chance of having a first baby declined to about 30 per cent between the early 1980s and the three most recent years. The probability of having a second baby declined to about 40 per cent and to about 50 per cent for a third or a fourth baby, during the same period. These results are encouraging.(Guengant et al., 1991).

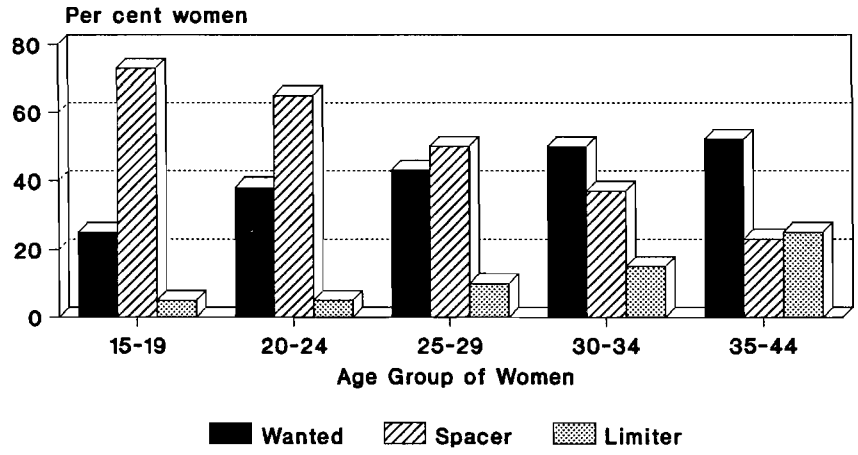
Teens in union

Information on types of unions among adolescents is important because of the variation in the impact of different types of unions on their reproductive behaviour. There appears to be a decline in the proportion of teenagers in a stable union between 1981 and 1988 which is associated with a more pronounced dominance of the visiting union type. Indeed, in 1988, visiting unions among teenagers accounted for 94 per cent of all union types in Saint Lucia and Jamaica. This new trend may account for some of the recent observed declines. In fact, studies have shown that levels of childbearing are higher among women in consensual unions; this does not appear to hold for adolescents. Legally married teenagers tend to have higher fertility than teenagers in common law or visiting unions (Lightbourne and Singh, 1982).

It is interesting to note that the gap between conception of first birth and entry into first union has remained wide over time, with longer delays between the two activities occurring for women of Saint Lucia than those of Trinidad and Tobago.(Figure 8A & 8B).

An important programmatic implication of this finding is the need to increase the delivery of family planning services to adolescents..

Figure 10
Planning Status of Last Pregnancy
Among women 15-44, 1987/1988



Selected countries:Barbados,Antigua, Dominica,St.Lucia & St.Vincent
Source: T.Jagdeo,1992 Chart 6

Unplanned / Unwanted births

In the CPS, DHS and YARHS surveys, women were asked if they planned or did not intend to have their first birth. Findings suggest that pregnancy and childbearing are unanticipated by many teenagers and that there is a large amount of unpreparedness. The most consistent finding is that adolescent pregnancies are not wanted. Figure 10 shows that more than 72 per cent of the teenagers and over 60 per cent of the women 20-24 years old surveyed in the Eastern Caribbean did not want their last pregnancy. (Jagdeo, 1992). In the case of Jamaica, over 90 per cent of those aged 13-15 with a first birth reported that the birth was unintended.

A strong relationship also exists between attendance at school and the degree of unintendedness. As expected, the proportion of unintended births was lower (59 per cent) for teenagers out of

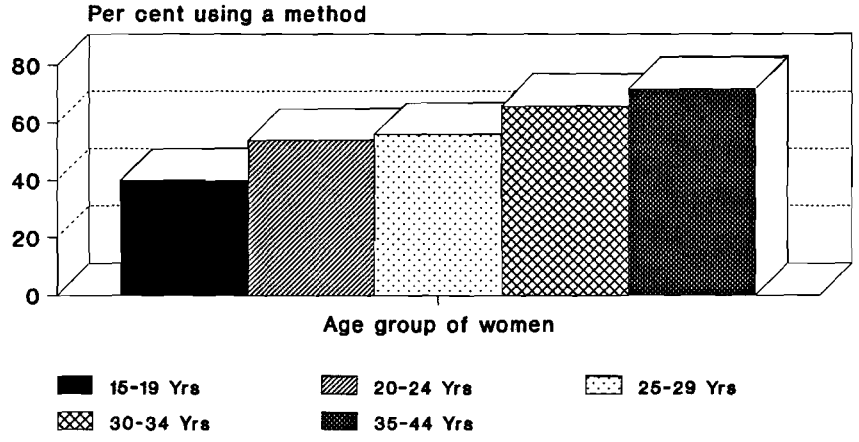
school than those in school. Also, women in less stable unions (visiting) had higher unintendedness (75 per cent) than women in other unions (64 per cent). (YARHS Survey, 1987).

Contraceptive Use

A major reason for the high levels of mistimed pregnancies among teenagers is the fact that contraceptive use is very low among in-union teens in the Caribbean. Adolescents embark on their sexual careers with a substantial lack of knowledge of matters relating to contraception and human sexuality.

As Figure 11 shows, only 40 per cent of all in-union teens in the Caribbean use a method, thus placing 60 per cent at risk of mistimed pregnancies. Indeed, contraceptive use among in-union adolescents is as low as 18 per cent in Guyana, 26 per cent in

Figure 11
Contraceptive Use among in-union women, 15-44, by age, 1987/1988



Selected countries:Antigua,Barbados, Dominica,St.Lucia & St.Vincent
Source:T.Jagdeo,1992,Chart 2.

Dominica, 33 per cent in Saint Lucia and between 43 to 49 per cent in Barbados, Trinidad and Tobago, Saint Vincent and Antigua. (Jagdeo, 1992).

On the other hand, the current levels of contraceptive use among teens is much higher than in the past and this probably explains why adolescent fertility rates are falling. The rates reported for Barbados, Saint Vincent and the Grenadines and Antigua are substantially higher for 1988 than those observed in 1980/81. However, the current rates of use only partially explains the observed declines in adolescent fertility in the region. There are strongly made suggestions that abortion is high in the Caribbean. However, this is a matter on which more reliable data is urgently needed.

The timing in the use of contraceptives in relation to first birth and first union has changed somewhat. With regard to contraceptive use, among women 25-34 who started their sexual life some 10-20 years ago, first contraceptive use occurred some 2 years after the first birth in Saint Lucia. The situation has improved since, as the gap between first live birth and first method used has narrowed somewhat. This is more so for Saint Lucia than Jamaica, however. (Figure 8A and 8B). But this also shows that, unfortunately, having a baby continues to be the event which triggers first use of a contraceptive method. (Guengant et al., 1991)

3.0 CONSEQUENCES

Limited Educational and Employment Opportunities

In light of the above, one of the main consequences of teenage fertility is the extent to which it compromises the girl's chances for personal development. As noted, it has led to the truncation of educational careers of more than one-third of the women in Jamaica. (YARHS, 1987). Furthermore, over four-fifths of the girls who drop out of school due to pregnancy do not return, which has implications for reduced employment prospects.

few government intervention policies and programmes exist that promote re-entry of adolescents into the education, training and employment system.[3] The successful impact of such a programme is demonstrated in the case of the Jamaica Women's Centre Programme, instituted in 1978. The latter was designed to continue the education of those girls who became pregnant while in school and assist them to re-enter the school system after the birth of the child. Results from a recent survey evaluation demonstrated that about 55 per cent of the Centre graduates who became pregnant while in school returned to school in comparison to only 15 per cent of the control group. With regard to employment, salary levels were higher among recent Centre graduates than among the control group. In addition,among recent Centre graduates, only 15 per cent had a subsequent pregnancy by the time of the interview, at the three year follow-up, in contrast to 39 per cent of the teen mothers in the control group.

The increased risk for health and survival of young mothers and babies is also an issue of concern. Young mothers and their children are known to be at a higher risk of maternal and infant or perinatal mortality. Detailed statistics of perinatal deaths by age of the mother are unfortunately not available for most countries. In countries, where available, data can only be obtained for the most recent single year. In most cases, the numbers involved are too small to draw a final conclusion on the higher risk of perinatal death encountered by teenage mothers compared with older mothers. Nevertheless, data from the Demographic and Health Survey for Trinidad and Tobago (1987) identify a relationship between maternal age and infant mortality. The results indicate that babies born to women under 20 years of age and over 34 years of age are more likely to die before they attain their first birthday than those born to women between the ages of 20 and 34.

[3] *The most popular and successful programme dealing with this aspect is being implemented by the Women's Centre of Jamaica.*

It is difficult to distinguish the relative importance of environmental (education, poverty, access to health) versus biological factors (age, birth order, birth spacing) in determining infant mortality, given the limitations of the data. However, studies suggest that this might well be more the result of unfavourable socio-economic characteristics and prenatal behaviour of pregnant teenage girls than the result of age. It seems that if young pregnant teenagers receive proper prenatal care and supervision, their chances of delivering a healthy baby and of remaining healthy themselves throughout pregnancy and delivery are almost as good as those for older mothers. (Guengant et. al., 1991). This is well illustrated in an analysis of the relationship between births in the last 5 years by type of prenatal care for mothers in Trinidad and Tobago. Results show slight differences by background characteristics of the mother except for older women. But those with some secondary education are more likely to receive care from doctors, while younger women, and those with less education are more likely to see trained nurses. If education can be correlated with income, then it is probable that socio-economic factors can affect infant mortality via determining the type of health-care provider the woman sees and ultimately the quality of prenatal and antenatal care.

However, studies have shown that the health and survival impact is not so great after age 16, once the country has sufficient medical expertise and health resources to provide adequate standards of prenatal care and delivery. Thus, most adverse outcomes could probably be reduced or eliminated through the emphasis on improvement of maternal and child care services. On the other hand, data on government recurrent expenditures do not reveal that this area is being given adequate emphasis.

Poverty

As indicated above, teenage births are largely associated with low levels of education, unemployment and higher involvement in visiting unions. Given the

close association of these factors with poverty, it is likely that adolescent childbearing constitutes both a consequence as well as a cause of poverty.

Adolescent fertility also represents an obstacle to sustainable development in that young women who give birth in their teens, not only seriously compromise their own educational, economic and personal development, but also jeopardise their children's life chances. Within this context, adolescent fertility can constitute a means of reinforcing intergenerational poverty.

In addition, teenage motherhood can create a burden on both the family for child-rearing and financial support, as well as on the government for the provision of medical, food, health, and housing subsidies.

4.0 SUMMARY OF FINDINGS

Thus, behind the aggregate figures of declining fertility in the Caribbean, there emerges serious challenges to address. The most pressing of these is the unacceptably high rates of adolescent fertility, the structure of these rates in terms of parity, and the attendant consequences for the opportunities and life chances of the adolescent. The other is the low stagnating contraceptive prevalence rates among these teens. This study has shown that :

* Total number of births to teenagers is still excessive in comparison to the number for women in other age groups. Declines are only recent and still not yet clearly defined.

* Age specific fertility rates have begun to decline, though the pace of change is slower than for other age cohorts.

* The structure of these rates in terms of parity (by age 20) is also cause for concern. One out of four teenage births are of second and third order.

* The likelihood of having a child before age 20 has declined slightly for many countries.

* The consequences in terms of reduced opportunities for improved education and career life chances are alarming. In one country about one-third of the girls having their first child are in school. Furthermore, most (81 per cent) do not return to school.
* Also the majority of teenagers had not planned or did not want their most recent or current pregnancy.

* The levels of contraceptive use are very low among teens in-union.

* Socio-economic factors (educational attainment and employment status) show clear links to adolescent fertility behaviour. Better educated girls or women "at work" are less likely to have a baby before age 20.

FINDING SOLUTIONS

Family Planning and Family Life Education

Responses to the problem of adolescent pregnancy have usually been preventive in nature with the aim of reducing or preventing the incidence. Programmes in this category focus mainly on family life education and family planning programmes.

Family life education is provided through the school curricula. However, the programmes in most countries have not yet been institutionalised. Moreover, problems exist with regard to issues such as programme content, teacher training and availability of materials.

On the other hand, the family planning programmes have been much more successful. But given the recent stagnation in the acceptance rates, there is need for a review of strategies as well as a redefinition of target groups and related programmes, especially in the case of adolescents and their status with respect to union status, parity, school attendance and employment status. Family planning programmes also need to be integrated more closely with other related social and economic programmes such as employment generation and training programmes for the youth.

With regard to the consequences of teenage pregnancy, as mentioned earlier, very few government intervention policies and programmes exist within countries in the region to assist in the re-entry of the teenage mother drop-outs into schools and other training and employment related programmes.

Institutional Problems

Moreover, the institutional mechanisms to deal with the issues of adolescent fertility are fragmented, with little coordination existing among the agencies. The three main agencies responsible for these activities include the Family Planning Association, Ministry of Education and Women's Desks. But the family planning programmes are either under the responsibility of the ministries of Health, NGOs or constitute separate Statutory Boards. They do not generally have links with the ministries of Education which are usually responsible for the execution of family life education programmes. The other aspect of the issue concerned with the implementation of projects related to the consequences of teenage fertility on the personal development of the adolescent are handled by the Women's Desks. They also provide assistance for the re-entry of teenage mothers into school as well as employment and training programmes. Thus, the approach to the problems of adolescent fertility, at the national level, has often been disjointed and piecemeal, especially with respect to programme formulation as well as institutional coordination.

On the whole, there appears to be a gap between government's perception of the problem and the formulation and implementation of policies to deal with the issues. The explicit population policies of five countries make reference to the problem. But there is still the need to translate the policy objectives into concrete programmes. All of this points to the need to continue to convince governments of the importance of integrated planning and programming.

5.0 RECOMMENDATIONS - World Population Plan of Action

The 1984 World Population Plan of Action (WPPA), approved in Mexico

City, addressed the issue of teenage pregnancy and childbearing in four of its 88 recommendations endorsed by the delegates from the 147 nations at the conference. References can be found in recommendations 7,8,18 and 29.

In recommendations 7 and 8, governments policies are advised to "encourage delay in the commencement of childbearing " and to "raise the age of entry into marriage". Recommendation 18 encourages "community education to change prevailing attitudes which countenance pregnancy and childbearing at young ages, recognising that pregnancy occurring in adolescent girls, whether married or unmarried, has adverse effects on the morbidity and mortality of both mother and child". And finally, recommendation 29 urges governments "to ensure that adolescents, both boys and girls, receive adequate education, including family life and sex education... and suitable family planning and information services".

Many of these recommendations are familiar and are being adopted by governments but without sufficient human and financial investments to guarantee their effectiveness. Thus there is need to re-emphasise the importance of the issues involved and encourage governments to renew their willingness to provide full support to the programmes.

It should also be noted that recommendations 7,8,18 and 29 containing references to the subject of adolescent pregnancy are dispersed under different sections such as "The role and status of women" (Rec.7 and 8); "morbidity and mortality" (Rec. 18); "Reproduction and family" (Rec. 29).

In light of the increasing concern among governments, combined with the need to adopt a well co-ordinated and integrative approach, to deal with the issues, it is being suggested that adolescent fertility issues and related recommendations be treated as a separate component in its entirety either under the section "Reproduction and the family" or "The role and status of women".

Suggested Adjustments/Further Recommendations for the World Plan of Action

1. Family Planning

(i) There should be continuation of encouragement and support for the work of family planning associations and primary health care systems to provide information about sex and reproduction to both boys and girls at an early age as well as services to young men and women.

(ii) Although family planning programmes have achieved a moderate degree of success operating on their own, governments should consider integrating these programmes into other socio-economic programmes targeted towards the teenage pregnancy problem. These would include education and employment for women, in order to increase their efficiency.

(iii) Governments should ensure the provision of well designed prenatal and maternity care services that reach girls early in their pregnancy in order to reduce the adverse health outcomes of early pregnancy.

(iv) Family Planning programmes need to re-define their target groups among adolescents taking into account differing needs among them with respect to individual age, parity, union status, numbers of partners and type of family/household structures to which they belong as well as the determining factors. Communication messages, strategies and service programmes should then be devised accordingly.

2. Family Life Education

(v) Governments should be urged to seek to accelerate the pace of institutionalisation of family life education programmes in schools.

3. The Role and Status of Women

(vi) Governments should be encouraged to re-emphasise the importance of improved education for women and the

need to invest resources in programmes that accomplish such a goal.

(vii) In addition to the preventive programmes (family planning, family life and sex education), governments should be encouraged to place equal emphasis on curative programmes to deal with the consequences of teenage pregnancy and to assist adolescents in re-entering the school system as well as employment market. This package of programmes should include projects to help teenage mothers stay in school and complete their education; nutrition programmes; special vocational programmes to help teenage mothers find jobs that will enable them to support their new family; child-care support to help make it possible for them to work without jeopardising their children' welfare. In this area, the NGOs and private sectors could be encouraged to offer assistance.

4. Socio-economic development and Population

(viii) In view of the observed linkages between problems of adolescent fertility and other socio-economic issues such as education, employment, poverty, social inequality, and unsustainable development, the approach to the subject of teenage pregnancy should be placed within a much broader scope than simply a concern for their reproductive behaviour. Thus recommendations in the WPPA should go beyond those of family life education and family planning services to the educational and employment needs of young men and women, their physical and mental health, their role in changing family structures and other wider social problems.

In this respect, governments should be urged to adopt a more integrated approach to resolving the problems of adolescent fertility.

(ix) Given the fact that the responsibilities for implementation of programmes related to adolescent fertility are dispersed among several agencies (Women's centres, ministries of Health, and Education, Family planning agencies, NGOs), governments should

be encouraged to seek stronger collaboration and co-ordination among agencies to ensure a more effective integrated approach to resolving the problems.

6. Data Collection

(x) Over the past two decades, the Demographic Health Survey (DHS), Contraceptive Prevalence Surveys (CPS) and the World Fertility Surveys (WFS) have made a useful contribution to the knowledge of reproductive behavior and contraceptive use. But these have had some limitations, especially with regard to detailing the socio-economic conditions. Governments are therefore being urged to give high priority to the strengthening of capabilities for the conduct of follow-up surveys for the collection of information on the reproductive behavior of adolescents.

7. Research

(xi) Although the area has received substantial attention over the past decade, the full nature of the relationship between the proximate determinants, their socio-economic environment and teenage fertility is still less completely understood than for other areas. There is need for more research on the channels or variables that are changing with modernisation and through which adolescent fertility is being affected. This would provide an empirical basis for the formulation of intervention policies and programmes.

(xii) In light of the slow pace of adolescent fertility decline and their comparatively low contraceptive prevalence rates, studies should be carried out to disentangle the social from the cultural and economic determinants.

(xiii) More research should be encouraged on the role and responsibility of the male in the reproductive behaviour process.

(xiv) Given the variations in the family and household structures in the Caribbean, including the large percentage of female-headed households,

studies should be conducted on the extent to which adolescent fertility is conditioned by family and household structures. This would help improve understanding of the effects of the social environment as well as assist in the formulation of more informed measures to influence social change.

SECTION FOUR

INTERNATIONAL MIGRATION AND RELATED CHALLENGES

INTERNATIONAL MIGRATION

Magnitude

The population history of the Caribbean has been dominated by a succession of immigration and emigration phases -slave trade, indentured immigration, intra-regional and extra-regional movements - which have exerted an extremely influential force in the determination of demographic, economic, and social transitions throughout the countries of the region.

The direction and pattern of emigration have changed dramatically over the past three decades. The 1950s was a period of sustained emigration mainly to the United Kingdom, creating major reducing impacts on the population growth rates of many countries (for example, Montserrat lost over 30 per cent of its population). By the mid-1960s, the direction of flows changed towards the United States and Canada. To-day, the United States continues to be the preferred destination of the Caribbean, accounting for nearly two-thirds of those leaving the region. (Table 14).

The most recent data available for the 1990/91 censuses suggest that, during the 1980s, the Caribbean region lost approximately 1.350 million people through emigration (which is only slightly less than the 1.650 million net loss calculated for the decade of the 1970s). In combination with figures for the 1950s and 1960s (totalling 5.6 million), this amounts to approximately 16 per cent of the 1990 population of the total region. (Guengant, 1990).

Population loss through net migration varies largely from one country to another in any given period of time. In terms of absolute numbers, the heaviest losses were experienced by the countries with the largest populations: Cuba, Dominican Republic, Haiti, Puerto Rico and Jamaica (in the case of Jamaica, total losses for the 1950-1980 period amounted to 35 per cent of its 1980 population). However, in terms of proportions of the population

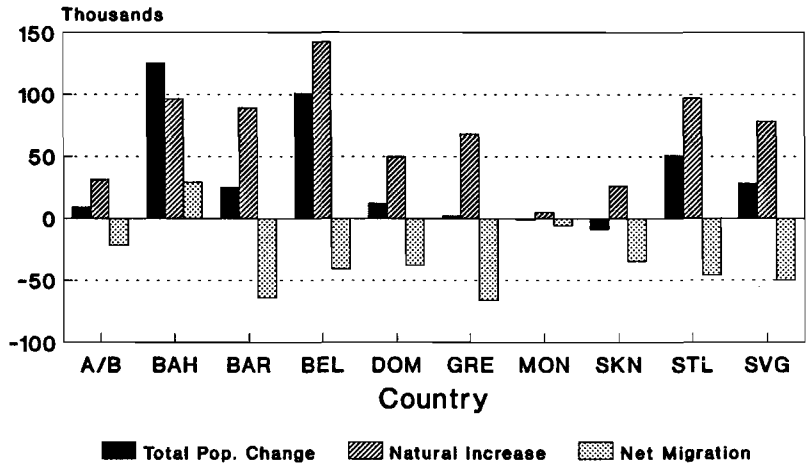
TABLE 14 : CARIBBEAN IMMIGRANTS ADMITTED TO THE UNITED STATES,1960-1989.

Country	Period of admission to permanent status		
	1960-1964	1975-1979	1985-1989
Barbados	1970	12021	7946
Guyana	1201	27999	49389
Jamaica	7838	72656	105335
Trinidad & Tobago	2113	29326	17067
Antigua & Barbuda	866	3594	4361
Dominica	423	2827	3150
Grenada	590	4747	4917
St.Kitts/Nevis	853	4019	3234
St.Lucia	457	2727	2670
St.Vincent & the Grenadines	571	2705	3418
Anguilla	-	1045	344
Montserrat	570	1004	726

Source: Statistical Yearbook of the Immigration and Naturalization Service, Annual Reports.

lost through migration, the percentage was higher for the Eastern Caribbean islands (losses amounted to 56 per cent of Grenada's 1980 population; 65 per cent of Montserrat's 1980 population and as much as 70 per cent of that of Saint Kitts and Nevis). The result was that, for several of these countries, their total populations either remained stable or declined slightly between the recent census dates (Simmons and Guengant, 1990). In fact, the total numbers

Figure 12
Components of Population Change, 1960-1989/90



NOTE: The country abbreviations used in the graph above are as follows: A/B - Antigua & Barbuda; BAH - The Bahamas; BAR- Barbados; BEL - Belize; DOM - Dominica; GRE - Grenada; MON - Montserrat; SKN - Saint Kitts and Nevis; STL - Saint Lucia; SVG - Saint Vincent and the Grenadines.

emigrating over the past three decades amount to more than half the size of the current 1990/1991 total populations of many countries (Dominica, Grenada, Montserrat, Saint Kitts and Nevis) (Table 15) .

The average annual net migration rates corresponding to these numbers amount to 0.4 per cent for the region as a whole and 1 per cent of the population for the 13 CARICOM countries (Table 16). Some CARICOM countries experience net-migration rates as much as 2 per cent per annum. Variations to this pattern exist for a group of six countries which, in fact, registered net immigration during the 1980s. For three of these countries, the corresponding net immigration rate exceeded 2 per cent per year (Cayman Islands, French Guiana and British Virgin Islands).

The extent to which these movements have impacted on the demographic growth of the region is

TABLE 15: MIGRATION BALANCES BY COUNTRY, 1950-1989

Country	Census 1960 Population (000's)	Census 1990/91 Population (000's)	Migration Balance in 000's 1950-59	1960-69	1970-79	1980-89	Total 1950-89	Percentage of Migration balance to 1960 Population	1990 Population
Cuba	6985	10608	- 10.0	- 475.0	- 222.6	- 19.9	- 727.5	-10	- 7
Dominican Republic	3047	7170	- 54.0	- 175.0	- 220.0	- 240.0	- 689.0	-23	-10
Haiti	3804	6480	- 70.0	- 220.0	- 350.0	- 400.0	-1040.0	-27	-16
Puerto Rico	2358	3530	-469.8	- 211.9	- 41.1	- 110.1	- 832.9	-35	-24
Jamaica	1610	2248	-165.1	- 289.5	- 270.8	- 246.5	- 971.9	-60	-43
Trinidad & Tobago	828	1234	- 0.4	- 110.1	- 94.7	- 75.0	- 280.2	-34	-23
Barbados	232	257	- 20.2	- 38.2	- 14.7	- 10.7	- 83.8	-36	-33
Guyana	560	796	- 4.3	- 53.1	- 129.5	- 121.6	- 308.5	-55	-39
Grenada	89	91	- 12.4	- 18.5	- 21.4	- 19.5	- 71.8	-81	-79
Saint Vincent	80	98	- 9.3	- 20.0	- 15.1	- 13.1	- 57.5	-72	-59
Saint Lucia	86	133	- 13.4	- 17.8	- 18.5	- 13.0	- 62.7	-73	-47
Dominica	60	72	- 5.5	- 9.7	- 12.5	- 15.8	- 43.5	-72	-60
Antigua & Barbuda	54	63	- 2.7	- 5.0	- 7.1	- 7.1	- 21.9	-40	-35
St. Kitts & Nevis	51	42	- 6.1	- 16.9	- 8.0	- 7.4	- 38.4	-75	-91
Montserrat	12	12	- 4.5	- 2.6	- 0.8	- 1.6	- 9.5	-79	-79
Belize	91	191	- 0.8	- 7.1	- 19.5	- 14.7	- 42.1	-46	-22
Bahamas	130	255	13.6	23.9	3.9	7.4	48.8	38	19
Bermuda	...	58	- 0.0	- 0.0	- 2.3	- 1.1	- 3.4	...	- 6
U.S. Virgin Islands	33	107	- 1.0	26.5	1.8	- 13.1	14.2	43	13
Curacao	...	148	- 4.5	- 18.3	- 16.9	- 20.4	- 60.1	...	-41
Aruba	59	61	- 13.0	- 9.9	- 5.5	- 5.6	- 34.0	-58	56
Suriname	290	422	- 4.4	- 27.8	- 97.6	- 33.5	- 163.3	-56	-39
Guadeloupe	275	390	- 3.4	- 25.3	- 50.3	14.0	- 65.0	-24	-17
Martinique	282	360	- 4.5	- 30.9	- 46.5	- 4.3	- 86.2	-30	-24
French Guiana	33	98	2.5	8.2	7.9	25.7	44.3	134	45
CARIBBEAN ISLANDS			-856.2	-1644.2	-1413.1	-1202.8	-5116.3		
CARICOM COUNTRIES			-231.1	- 564.6	- 608.7	- 538.6	-1943.0		
CARIBBEAN REGION			-863.2	- 1724	-1651.8	-1346.9	-5585.9		

SOURCE: Current Demographic Trends and Issues - J. P. Guengant, 1992.

clearly illustrated in the ratios between net-migration and natural increase for the 1980s (Table 16). For the whole region, it appears that natural increase has been truncated by about one quarter over the past decade. But the impact is even greater for the CARICOM countries which have experienced losses that amount to between 50 to 100 per cent of their natural increases. (Figure 12). In cases where the net-migration rates have exceeded 100 per cent of natural increases, there have been population declines (Dominica, Saint Kitts and Nevis, Montserrat). In contrast, among those countries experiencing immigration, (which also seem to be the fastest growing countries), immigration accounts for two to three times their natural increase (Guengant, 1992).

In addition to the direct effect of emigration on population growth, studies on migration-fertility relations demonstrate that long-term emigration also has indirect effects on the growth by depressing the birth rate. This is related to the high age-sex-selective nature of emigration which involves a predominance of women in childbearing ages (Ebanks, et al., 1975; McElroy and de Albuquerque, 1986).

On the whole, of significance is the fact that the English-speaking Caribbean, regardless of size or poverty of the given country, has experienced greater proportional losses than have the Dutch-, French-, and Spanish-speaking countries. This may be a function of the fact that the major receiving countries have been anglophone. But other policy factors are likely to be involved, such as the national policies of the Dutch and French in maintaining higher development levels in their former colonies (Simmons and Guengant, 1992).

But the impact of international migration cannot be measured simply in terms of the magnitude of the flow. The full significance of these movements must also be understood within the context of the characteristics of the people involved, such as their acquired education, skills, demographic behaviuor, economic characteristics and world view.

Sources of Migration Data

The three main sources of migration data are the entry-departure statistics from the national immigration departments, the census migration balances and the immigration data available from the receiving countries. Most of the countries use the entry-departure statistics to estimate their annual net migration. This source of data often provides inaccurate counts since it does not make a distinction between temporary and permanent movements or between residents and non-residents. Moreover, it is usually incomplete due to the inability to account for the illegal migrants and cross-border movements. The result is a gross understatement of net migration.

Since these data are also used to compute intercensal and post-censal estimates, many of the socio-economic indicators as well as population estimates have also been accordingly overestimated. This is one of the main reasons why the results of the 1980 and 1990/91 censuses are so much below all the related population estimates. On average, census year population estimates were 10 per cent higher than the census results. Likewise, the age and sex distribution of the census differed markedly from the structure of the population estimates for similar reasons.

Data on admissions to the US and Canada are increasingly being used to help explain the net migration figures, and throw more light on the age, sex, educational and occupational characteristics. But these data also have their limitations with respect to accuracy of year of arrival in relation to year of visa granted, original place of birth of migrant, duplication of emigration loss due to re-migration, lack of coverage of illegal immigrants.

Despite its limitations, the entry-departure statistics remain the sole local annual source of information on migration. Although the migration balance derived from the censuses constitutes a more reliable source, these are available every ten years. In light of these data limitations and the important

TABLE 16: RATES OF GROWTH, NATURAL INCREASE RATES, NET MIGRATION RATES AND RATIOS OF MIGRATION TO NATURAL INCREASE, 1980-1989

Country	Average Annual Rates of Population Growth	Average Annual Rates of Natural Increase	Average Annual Net Migration Rates	Ratio Of Migration To Natural Increase
Cuba	1.02	1.04	-0.02	-2
Dominican Republic	1.76	2.16	-0.40	-18
Haiti	1.99	2.73	-0.74	-27
Puerto Rico	0.98	1.31	-0.33	-25
Jamaica	1.20	1.99	-1.11	-56
Trinidad and Tobago	1.34	1.99	-0.65	-33
Barbados	0.40	0.82	-0.43	-52
Guyana	0.47	2.04	-1.57	-77
Grenada	0.04	2.20	-2.16	-98
St.Vincent & the Grenadines	0.87	2.16	-1.28	-59
St.Lucia	2.20	2.55	-1.05	-41
Dominica	-0.28	1.88	-2.16	-115
Antigua and Barbuda	0.08	1.17	-1.08	-93
St.Kitts/Nevis	-0.32	1.41	-1.73	-123
Montserrat	-0.54	0.91	-1.45	-160
Belize	2.47	3.36	-0.89	-27
Bahamas	1.96	1.64	0.32	20
Bermuda	0.60	0.80	-0.20	-25
U.S Virgin Islands	0.60	1.94	-1.33	-69
British Virgin Islands	3.72	1.21	2.51	208
Cayman Islands	4.11	1.22	2.88	235
Curacao	0.06	1.43	-1.38	-96
Aruba	0.24	1.17	-0.93	-80
Suriname	1.21	2.09	-0.88	-42
Guadeloupe	1.67	1.28	0.39	31
Martinique	0.96	1.09	-0.13	-12
French Guiana	4.98	2.17	2.82	130
Caribbean Islands	1.33	1.72	-0.39	-23
Caricom Countries	0.96	1.97	-1.02	52
Total	1.34	1.75	-0.42	-24

Source: Regional Digest of Selected Demographic and Social Indicators, 1960-1990, ECLAC/CELADE, Port-of-Spain,1992; Current Demographic Trends and Issues,J.Guengant,1991

uses of migration statistics in the calculation of social and economic indicators, Caribbean governments should make every effort to find ways of improving the collection and accuracy of entry-departure statistics.

Causes of Caribbean Emigration

The volume and pattern of the outward movements appear to have been prompted by multiple causes: political crises; economic forces (poverty and limited employment opportunities); changes in immigration policies in potential destination countries; "culture of migration" traditions; and international linkages to cultural and kinship networks abroad (Conway, 1991; Marshall, 1983; Simmons and Guengant,1990).

These various contributing forces constitute both push and pull factors in the sending and receiving countries. The first push factor involves what Marshall (1982) refers to as the Caribbean "culture-of-migration". The latter may be viewed as a historically conditioned response that encourages workers to seek jobs abroad because this is what their ancestors did . These cultural values are reinforced by strong family backing. Another push factor stems from the high unemployment rates in rural areas and pressures to leave the land, due both to the mechanization of plantation agriculture and to the continued decline of sugar production in areas where size and quality of land did not permit expansion through mechanization (Simmons and Guengant, 1992). Indeed, internal migration to the cities has, in many cases, been substituted by external migration to other countries. As a result, the impact of rural out-migration on the urbanisation of some countries has been diffused by international migration.

Pull factors include the demand for workers with specific skills and immigration legislation to encourage such skills. Equally important are the strong linkages to the cultural and kinship networks established in the receiving countries, especially the United States and Canada.

In general, most studies have found that each of these factors carries importance. However, no single one of these variables seems adequate enough to explain most of the observed variation among countries or the region as a whole. These inconclusive findings can present problems especially with regard to the formulation of migration policies and strategies.

Impact of Emigration on Population Age structure and sex ratio

Net- migration has also impacted on the age structure of the populations and created distortions in the sex ratios. Earlier emigrations (mainly to the United Kingdom) were highly male selective. This, of course, had a pronounced effect on the sex ratios of the countries, especially the smaller islands. More recently, after 1970, Caribbean migration to North America and Canada appears to have become female dominated. Movements to both countries consisted of large numbers of young women who were able to find service sector jobs easily and who later were able to sponsor their relatives. In general, annual proportions of female immigrants to the United States average about 54 per cent of the total.(Table 17).

Emigration also appears to be selective of the region's youth under age 29, which has begun to influence the age profiles of the smaller countries (Conway, 1991). Thus, the smallest of the region's islands will soon be the first to experience the dual threat of both "depopulation" and ageing as a consequence of continuous emigration. (Table 18).

Occupation and education differentials of Migrants

Among the negative consequences of emigration, "brain drain" has been identified as a major obstacle to the development efforts of Caribbean countries. Emigration has been selective of highly skilled individuals, those with entrepreneurial skills, other "much needed " skills (identified by the receiving country), and other categories of human capital perceived to

TABLE 17 : SEX RATIO OF MIGRANTS FROM SELECTED COUNTRIES TO THE UNITED STATES FOR THE PERIOD 1959 TO 1980

Country	All Ages					15-44 yrs
	Before 1959	1960-1964	1965-1969	1970-1974	1975-1980	Before 1959 -1980
	M/F	M/F	M/F	M/F	M/F	M/F
Barbados	0.89	1.10	0.67	0.88	0.82	0.88
St.Vincent & the Grenadines	0.90	1.40	0.74	1.03	1.14	0.97
St.Kitts/Nevis	0.56	0.72	0.93	1.62	1.23	1.15
St.Lucia	1.29	0.85	1.00	0.83	0.62	0.90
Montserrat	0.61	0.97	0.70	1.88	0.86	0.68
Grenada	0.81	0.96	0.84	0.87	0.65	0.87
Dominica	0.53	0.62	0.71	1.14	1.39	0.95
British Virgin Islands	0.95	1.01	1.32	0.71	0.90	0.86
Bahamas	0.91	1.28	0.93	0.92	0.78	1.11
Antigua and Barbuda	0.65	0.59	0.81	0.94	0.78	0.83
Jamaica	0.89	0.75	0.58	0.90	0.88	0.82

Source:Statistical Yearbook of the Immigration and Naturalization Service, Annual Reports

be especially scarce. During the 1950s and 1960s, the predominant occupational categories comprised executive, professional, and managerial categories. Indeed, the countries lost a large percentage of their medical and education professionals during this period. (Table 19).

By the 1970s, due to changes in the US and Canadian immigration policies, this pattern had shifted to an

TABLE 18 : AGE STRUCTURE(%) OF MIGRANTS BY SEX TO CANADA FOR SELECTED COUNTRIES, FOR 1989

Age Group	COUNTRY Grenada		Jamaica		St.Lucia		St.Vincent		Trinidad & Tobago	
	Male (%)	Female (%)	Male (%)	Female (%)	Male (%)	Female (%)	Male (%)	Female (%)	Male (%)	Female (%)
0-4	1.8	-	2.0	2.0	1.4	1.4	1.7	1.7	3.2	3.4
5-9	3.6	4.8	4.2	4.4	2.8	1.4	2.5	2.5	4.6	4.6
10-14	4.8	4.8	7.1	7.6	5.4	4.0	5.0	7.6	3.8	3.6
15-19	5.4	4.2	8.7	7.4	1.4	6.8	3.4	11.0	3.8	4.0
20-24	4.2	4.2	6.4	6.2	2.3	13.4	5.1	6.7	4.3	4.8
25-29	7.7	7.1	7.3	7.1	9.4	9.4	12.6	11.0	7.3	7.8
30-34	7.7	13.7	5.5	6.0	2.8	10.7	8.4	5.9	7.1	6.8
35-39	2.4	3.0	2.8	2.9	4.0	5.4	0.8	2.5	4.7	4.8
40-44	1.8	3.0	1.7	1.5	1.4	1.4	1.7	1.7	2.9	2.5
45-49	1.2	1.8	0.9	1.0	1.4	1.4	-	0.8	1.6	1.7
50-54	1.2	3.0	0.5	0.7	1.4	-	-	0.8	0.9	1.4
55-59	0.5	1.1	0.5	0.6	-	-	-	0.8	1.0	1.6
60-64	1.2	1.1	0.4	1.2	-	1.4	-	0.8	1.1	2.3
65+	1.1	3.6	1.0	2.4	2.8	6.8	2.5	2.5	2.1	2.3
Total	44.6	55.4	49.0	51.0	36.5	63.5	43.7	56.3	48.4	51.6

Source: Alan B Simmons and Dwaine E Plaza,1992--International Migration and Schooling in the Eastern Caribbean

TABLE 19 : OCCUPATIONAL DISTRIBUTION OF MIGRANTS IN CANADA

OCCUPATION	MALES			FEMALES		
	1960-69	1970-74	1974-79	1960-69	1970-74	1974-79
Managerial	1.0	5.8	5.1	0.4	2.6	1.7
Professional	21.1	11.4	8.1	32.4	18.2	13.3
Clerical	10.6	12.2	13.2	35.5	35.1	33.1
Sales	6.7	5.8	5.5	4.7	3.8	4.4
Service	7.9	10.1	16.4	12.3	15.2	21.1
Processing	27.5	36.2	36.3	7.7	18.3	20.1
Construction	6.1	5.1	3.9	0.2	0.2	0.2
Transport	3.7	5.2	3.9	0.1	0.2	-
Other	6.3	8.2	8.5	3.1	6.4	6.3
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0

SOURCE: Simmons and Plaza, 1992.

emphasis on the technical, services, craft and factory related occupations. Thus, for example, during the period 1960-69, the proportion of adult female immigrants to Canada who were professionals and managers amounted to 32.8 per cent. By 1974-79, the size of the group had dropped to 15 per cent of total migrants.

In contrast, the proportion of female migrants in the service and processing categories doubled over the same period moving from 20 to 41 per cent.

The picture is somewhat similar for males, although the rate of change for the latter occupational groups are not as marked. Thus, the proportion of male migrants who were professionals and managers declined gradually from 22 to 13 per cent over the 1960 to 1979 period. One the other hand, the category in service and processing occupations rose from 35 per cent to occupy more than half (53 per cent) the total numbers of males migrating to Canada over the same period.

In the short run, migration to the United States and other countries is

expected to continue unabated. In fact, the most recent (1990) reform of United States immigration procedures revising the preference system to make it more responsive to the country's needs for skilled labour, may open up the possibility of increased recruitment of the region's professionals and threaten an acceleration of the "brain drain". This new situation warrants close monitoring coupled with the development of appropriate policy responses in anticipation.

Loss of Highly Educated

A substantial part of the losses include the countries' most ambitious and trained young adults. A recent study has confirmed that those who move from the Eastern Caribbean tend to be predominantly "selected from the best educated in their home countries". (Simmons and Plaza, 1992). The extent of these losses could be illustrated by a comparison between those with university education who migrated and those who remained at home with similar education qualifications. Whereas the average proportion of male adults with some university education in the OECS countries amounted to less than two per cent (1.6 per cent), the proportion of immigrants to the United States over the 1975-1980 period who had a similar education background amounted to about 25 per cent (Saint Lucia was higher with 45 per cent).(Table 20).

Among the females, the proportion of the educated lost was slightly less, given their relatively smaller proportion with higher education qualifications in the Caribbean. On the other hand, of significance is the rapidly growing proportion of female immigrants who are more highly educated and with university degrees. Similar patterns of losses from the stock of the university educated were experienced by Trinidad and Tobago, Jamaica, Guyana and Barbados (Simmons and Plaza, 1992).

The net loss of human resources at the professional and managerial level has been a source of serious concern to the Jamaican government. A study

TABLE 20: PERCENT CARIBBEAN IMMIGRANTS TO CANADA WITH UNIVERSITY TRAINING BY SEX, 1980

Country	Percent with university training on arrival in 1980	Percent of all arrivals 1975-81, with university training in the 1981 census
FEMALES		
Barbados	3.9	8.8
Guyana	2.3	7.2
Jamaica	3.1	8.1
Trinidad and Tobago	5.4	9.9
Antigua	2.2	...
Dominica	4.2	...
Grenada	2.9	...
St. Kitts & Nevis	4.4	...
St. Lucia	1.4	...
St. Vincent & the Grenadines	2.3	...
MALES		
Barbados	3.5	13.1
Guyana	6.6	15.1
Jamaica	6.4	10.9
Trinidad & Tobago	11.8	14.8
Antigua	10.3	...
Dominica	6.9	...
Grenada	6.5	...
St. Kitts & Nevis	12.1	...
St. Lucia	12.5	...
St. Vincent and the Grenadines	4.8	...

SOURCE: Alan B. Simmons and Dwaine E. Plaza, 1992 - International Migration and Schooling in the Eastern Caribbean.

commissioned by the government estimated that the loss experienced over the 1950-1980 period was equivalent to some 60 per cent of the country's stock of graduates trained during the 1977 - 1980 period. This net loss in investment

was calculated at US $194 million, equivalent to the cost of training these migrants.

It is doubtful whether this trend will continue, especially in light of changes in the Canadian and United States immigration policies which seem to be achieving a gradual reduction in the demand for persons with university degrees since 1974. Parallel to this is a notable decline in the number of Caribbean students on visas in Canada over the 1980-1990 period, ranging from a reduction of 9 per cent for the OECS countries to a 25 per cent decline for Trinidad and Tobago. Exceptions are Barbados and Saint Lucia which continue to show increases (Simmons and Plaza, 1992).

Effects on Development

As outlined above, the loss of education costs and the productive outputs of the more highly educated and skilled persons emigrating are considered a major obstacle to the development efforts of the caribbean region. On the other hand, there is the alternative view that sees this outward movement as a characteristic response by the people in the region to limited opportunities in their countries, resulting from the inabilities of governments to provide their educated with gainful employment. Hence it would aid in the reduction of unemployment levels thus exerting a positive influence on development. On the other hand, because the people who migrate are in their most economically active years (age 24-35), the society is deprived of their contribution to the development effort.

Another positive aspect cited has been the role played by emigration as a "safety valve" of release from demographic pressures in light of the high population growth rates of the post-Second World War period.

Finally, the substantial receipt of remittances from abroad is also viewed as providing much needed foreign earnings, especially within the context of the balance of payments problems being faced by many of the countries.

Remittances are both monetary and "in kind". Data sources indicate that the annual contribution of remittances to the gross domestic product of selected countries range from 5 to 10 per cent. In the case of total exports, remittances account for as much as 10 to 30 per cent of the total (Guengant, 1985). Moreover, in some cases, the value of remittances exceed the value of merchandise trade (Samuel, 1992).

On the whole, much more research is needed to explore the impact of emigration on Caribbean development, especially as many of the findings are still inconclusive. For example, a negative relationship was found between the estimated annual rates of net emigration for the 1975-79 period and the per capita gross domestic product of 1977 (Guengant, 1985). The implication is that local development conditions play a more important role in setting emigration levels than other factors (such as the immigration policy of receiving countries). On the other hand, this does not mean that emigration would decrease if a higher level of development were achieved. Moreover, the level of significance was very low, thus introducing uncertainties relative to the strength of the relationship as well as the quality of data.

In contrast, another study (Guengant, 1985) comparing recent GDP (1980-85) and legal immigrant flows into the United States finds very little direct "determining linkages" between economic trends and volume of out-migration. (Table 21). On a similar note, Worrell's recent evaluation of the performance of Caribbean economies since 1970 does not uncover persuasive linkages between emigration and economic stagnation (Worrell, 1987). Indeed, his view supports Marshall's "culture of migration" theory which suggests that international migration is rooted in tradition and represents a popular response to economic mismanagement (Worrell, 1986; Conway, 1991).

TABLE 21: IMMIGRATION TRENDS TO THE UNITED STATES AND RECENT GDP PERFORMANCE OF CARIBBEAN COUNTRIES

Countries	GDP/capita 1974 (US$)	GDP/capita 1985 (US$)	% Change in GDP 1980-85 (Average growth at constant prices)	Immigration to U.S. 1972-78	Immigration to U.S. 1979-85
Antigua/ Barbuda	689	2,244	6.00	4,033	9,823
Bahamas	3,362	7,822	4.73	2,796	3,858
Barbados	1,296	4,894	0.29	14,089	14,534
Belize	614	1,110	1.16	4,734	9,933
Cuba	1,524	2,690	6.07	224,534	89,617
Dominica	378	1,132	5.64	2,510	4,673
Dominican Republic	639	712	1.83	100,628	121,908
Grenada	346	961	3.11	5,260	7,398
Guyana	538	584	-2.88	26,708	58,107
Haiti	125	368	1.16	38,288	56,863
Jamaica	1,038	858	-0.87	88,740	139,244
St. Kitt- Nevis	634	1,469	2.86	4,443	8,756
St. Lucia	448	1,245	2.97	2,559	5,109
St. Vincent & Grenadines	310	933	4.87	3,039	5,075
Suriname	1,100	2,360	0.34	554	642
Trinidad & Tobago	1,778	6,538	-2.04	44,267	27,397
B.V.I.	...	7,101	5.22	2,241	1,309
Montserrat	886	3,118	3.45	1,422	1,029
Netherlands Antilles	...	6,110	...	1,970	1,495
U.S. V.I.	...	9,280	...	Not Applicable	
				572,815	566,77

Sources: Conway, D., 1991; ECLAC Document LC/CAR/G.353, 1991.

INTRA-REGIONAL MIGRATION

International movements within the region appear to be on the rise again. (Conway, 1991). But systematic measurement of these movements is difficult and can only be achieved indirectly through analysis of the immigrant stocks of the censuses taken at different points in time. These migrants are measured as individuals who were born in one Caribbean country but reside in another.

A rough estimate of the magnitude of this movement indicates that intra-regional migration accounted for an average of about 1 per cent of the total 1980 population in the Caribbean. Some studies suggest that a more realistic estimate would be around 2 to 3 per cent (taking into consideration the possibility of census errors). (Simmons and Guengant, 1991).

The propensity of individuals in various countries to emigrate within the region varies widely. Thus in the case of a number of Eastern Caribbean Islands (Grenada, Saint Vincent and the Grenadines, Saint Kitts and Nevis) and the British Virgin Islands, more than 15 per cent of those born in these countries and enumerated in the censuses, are living in a country other than where they were born. This is in contrast to the average of 1 per cent for other countries such as Trinidad and Tobago, Bahamas, Belize, and Jamaica (Simmons and Guengant, 1991).

Much variation also exists among countries with respect to the choice of country of destination - the Caribbean rather than countries outside the region. This is shown in the estimates of the number of life-time intra-regional migrants around 1980 compared with the overall net-migration balance over the period 1950-1980 for each country (Simmons and Guengant, 1991). At one end of the continuum exist countries such as Jamaica and Barbados, where as little as 2 per cent of their total losses consists of persons who migrated to other countries in the Caribbean. A different picture emerges for countries such as Saint Lucia, Saint Vincent and the Grenadines and Grenada where emigration within the region constitutes

TABLE 22: ANALYSIS OF LIFETIME EMIGRATION WITHIN THE CARIBBEAN REGION CIRCA 1980, IN RELATION TO INTERNATIONAL NET-MIGRATION BALANCE, 1950-80

Country of origin (place of birth)	Estimated international net-migration balance '50-80 (000s)	Number of lifetime emigrants to countries of region	Migrants to region as a percent of migration balance
	A	B	C
COUNTRIES WITH VERY HIGH PERCENT POPULATION LOSS THROUGH NET MIGRATION			
Jamaica	- 725.4	12,924	- 1.78
Suriname	- 129.8	5,251	- 4.05
Barbados	- 73.1	5,933	- 8.12
Netherlands Antilles	- 68.1	8,116	-11.92
Montserrat	- 7.9	1,201	-15.20
St. Lucia	- 49.7	12,419	-24.99
Dominica	- 27.7	8,238	-29.74
St. Kitts and Nevis	- 31.0	9,743	-31.43
St. Vincent and the Grenadines	- 44.4	18,761	-42.25
Grenada	- 52.3	22,960	-43.90
COUNTRIES WITH HIGH PERCENT POPULATION LOSS THROUGH NET MIGRATION			
Belize	- 27.4	137	- 0.50
Puerto Rico	- 722.8	6,256	- 0.87
Trinidad & Tobago	- 205.2	6,522	- 3.18
Guadeloupe	- 79.0	3,668	- 4.64
Guyana	- 186.9	13.175	- 7.05
Martinique	- 81.9	8,349	-10.19
Antigua	- 14.8	6,519	-44.05
COUNTRIES WITH LOW OR NO PERCENT POPULATION LOSS THROUGH NET MIGRATION			
French Guiana	18.6	1,637	8.80
U.S. Virgin Islands	27.3	1,225	4.49
Bahamas	41.4	453	1.09
Bermuda	- 2.3	28	- 1.22
Cuba	- 707.6	28,698	- 4.06
Dominican Republic	- 449.0	30,542	- 6.80
Haiti	- 640.0	103,080	-16.11
All above	-4239.0	315,835	- 7.45

SOURCE: Simmons and Guengant, 1991.(Table 3)

between 25 to 45 per cent of overall population loss through net migration from these countries (Simmons and Guengant, 1991).(Table 22).

The pattern and direction of intra-Caribbean movements have been linked to the socio-economic status of the sending countries. For example, countries such as Guyana, Trinidad, and Jamaica, which have experienced large outward movements to destinations outside the region, but relatively little emigration to countries within the region, appear to possess more advanced schooling systems which would assist migrants to gain greater access to the United States and other destinations. International linkages and strong networks of kin are then developed which give support to the choice of destination. In contrast, emigrants who choose to stay within the region are usually from those countries which are the poorest and least connected to international markets (Simmons and Guengant, 1992).

With respect to the social and economic position of Caribbean migrants within the region, studies have shown that, while some are professionally skilled and achieve higher positions in the labour market of the receiving countries, most migrants within the region find positions as semi-skilled and unskilled workers, or vendors of goods and services in the informal sector (Simmons and Guengant, 1992).

In general, the flow of out-movement within the region is focused on a few destinations which have attracted immigrants in periods of economic growth. This has been the case, for example, in the Bahamas (tourism and banking services); Antigua, the U.S. Virgin Islands, and the British Virgin Islands (tourism), Trinidad and Tobago (petroleum export based growth) and Puerto Rico (tourism and off-shore industry). The impact of these inward movements on the receiving countries is still to be analysed, but indications are that the population size of the country can be a determining factor. For example, about one-third of the population of the British Virgin Islands comprises emigrants mainly from the other countries of the Eastern Caribbean. If this trend continues, it may

result in problems of assimilation and political empowerment. A similar case exists for the Turks and Caicos Islands whose population doubled over the past decade due to an influx of immigrants.

Another emerging pattern of movement causing increasing concern to governments within the region has been the rise in cross-border movements which are of great relevance especially to countries with small populations (such as British Virgin Islands, U.S. Virgin Islands, Turks and Caicos Islands). The result appears to be a complex mix of socio-economic costs and benefits to both the sending and receiving countries. Much more research is needed, however, to determine the nature and consequences of this particular type of movement.

RETURN MIGRATION

Magnitude

The nature and rates of return flows as a balance to permanent emigration have been recognised as an extremely important counter to the above possibly negative consequences. Unfortunately, quantitative estimates of return flows of nationals are not available on a regional scale. Although case studies do not necessarily permit generalizations, it has been suggested that the magnitude of return migrants on the CARICOM region may be similar to that of the French Islands, around 10 per cent of the total number of emigrants (Guengant, 1985).

Determining factors

The factors fostering return migration include, first, what Guengant (1985) terms the "ideology of return", which is encouraged by regular contact with the home country through short-term return visits and the sending of goods and remittances. The second factor is related to the availability of jobs at home. The third factor, which could be described as a push factor, results from the consequences of deteriorating economic conditions and/or prejudices in the host countries, which affect the

emigrants' conditions of life and encourages their desire to return.

A fourth factor influencing retirees would be the overall socio-economic climate, including rates of inflation, prevailing exchange rates, incidence of crime and sense of security.

Implications for development

The implications of return migration for Caribbean development are difficult to evaluate with any accuracy, given the fact that the return involves much more than numbers and relates to persons with a wide variety of characteristics in terms of socio-cultural, education and skill status, reasons for migrating and patterns of return. Thus the nature of the contribution made to the home country depends of the type of migration patterns adopted by these various groups. This makes the exercise of identifying linkages between these characteristics of the return flows and development aspects much more difficult, especially in light of the absence of data in these areas.

Most studies concentrate on four factors in the analysis of the impact of return migration on development: skills and occupational changes; transfer of capital; transfer of goods and cultural values and tastes. As noted earlier, studies have shown that the transfer of capital (remittances) and goods are essential to the economic viability of a substantial number of Caribbean households and communities. Of course, a critical question relates to the way these transfers are utilised that would ensure that its contribution to national development is maximised.

Although retirees form a substantial part of the return flows, the majority of those returning seek to join the labour market. A major question relates to the extent to which the skills of return migrants are those most needed by the home society. A study of Nevis showed that many of the returnees move into own account work, requiring some capital outlay but no specialised skill. Certain occupational groups such as entrepreneurs and retailers were found to be in excess of local or national

requirements (Thomas-Hope, 1985). On the other hand, the latter businesses were usually established on a much larger scale and were better equipped.

With regard to the professionals, the degree of success, however, is related to their education and work experience. A survey conducted of a sample of returnees in the industrial sector of Jamaica, found that 83.9 per cent were in white collar occupations and 54.6 per cent in professional and managerial positions. Furthermore, these return migrants were concentrated in the modern industrial sectors such as financial services (Thomas-Hope, 1985).

On the whole, the results of studies seem to indicate that, with the exception of the highly skilled and professional categories, return migration appears to have the effect of creating imbalances in manpower requirements and supplies. Moreover, the transfer of skills seems to be minimal (Thomas-Hope, 1985). On the other hand, these weak linkages may largely result from the inability of governments to devise appropriate strategies to harness the skills of return migrants in a way that would maximise its contribution to national development.

DISCUSSION - International Migration - Policy Implications

In light of the above findings, a realistic appraisal of the combination of current development patterns in the Caribbean region, the ongoing societal transformations and the international migration patterns tendencies, would seem to suggest that:

(i) The overall magnitude of outward movements (whether by legal or illegal means) from Caribbean countries are likely to continue. This is because the economic and cultural conditions that historically favoured Caribbean emigration still continue. Also, the existence of large kinship networks and strong family ties abroad serve to lower the costs and risks to new migrants and assist in resettlement.

(ii) As a result, once the processes of cumulative causation become entrenched in sending countries and combine with other forces overseas such as network systems and the influences of international income redistribution (resulting from remittances), it is difficult, and sometimes impossible to successfully implement policy measures to reduce or control flows of migrants.

(iii) Moreover, policies to promote additional economic growth in the region may not necessarily reduce emigration in the short run (due to lag effects). On the other hand, in the long run, although economic growth, or improved development conditions, may at times reduce incentives for extra-regional movements, it may, nevertheless, assist to promote rather than retard international outflows. (This is related to the effect of technology on rising productivity and the need for fewer workers thus resulting in a maintenance of the unemployment situation).

(iv) Nevertheless, new skilled workers are required and must be trained. Thus, despite the investment losses suffered through emigration, and despite the fact that higher education increases the likelihood of a person leaving the region, Caribbean governments need to continue to accelerate the implementation of education and training programmes to fill the gap created by emigration.

(v) The effect of emigration on income redistribution through gifts and remittances can benefit the economies, once there is confidence in the stability of the government.

(vi) With regard to the policy implications of return migration, government initiatives to encourage the return of migrants

after a long stay abroad have been minimal. In general, their attitude has been more or less "laissez-faire", probably due to their limited knowledge on the subject and the resultant ambivalence over the advantages and disadvantages of such a movement as well as the net balance of its impact on a country's development efforts.

(vii) However, the prospects for a continued flow of return migrants are favourable. Given the fact that many of them possess high levels of skills and work experience acquired abroad, the impact on the economy can be beneficial. Hence, policies to encourage the return of migrants may help to redress the imbalance. These policies could include the search for mechanisms to strengthen contact with migrants and the development of packages of economic programme incentives to attract returnees. The results should also assist in the development of policies and programmes to re-attract needed skills as well as harness the potential of returnees to maximise their contribution to national development efforts.

RECOMMENDATIONS

In light of the important role played by international migration as a determinant as well as a consequence of the social, political, economic and demographic forces, the following strategies are being suggested to improve the data collection, analysis, and policy formulation aspects:

(i) To date, policy approaches to international migration have been unduly influenced by subjective opinions on its perceived deleterious consequences. Studies should be undertaken to permit assessment of the determinants and consequences of international migration flows. Analyses should also include the extent to which

negative consequences have resulted from the occupational, and educational selectivity of Caribbean long-term emigration flows. This information will assist policy makers in estimating short and long-term changes in demographic, social and economic aspects and design realistic programmes, where deemed appropriate.

(ii) Given the policy concerns underlying the losses and gains of human capital resources, there is need to generate a viable statistical data base for analysing and comparing international mobility patterns in the Caribbean. This would require close cooperation among countries to achieve conformity of definitions, concepts, standard arrival and departures recording forms, and policies concerning all categories of movements.

(iii) Further work is needed in the conduct of sample surveys of return migrants and their patterns of re-settlement. Given the limited knowledge of governments on the issues involved, the following strategies should be encouraged : (a) the collection of data and the conduct of surveys, where needed, on the magnitude, patterns and characteristics of return migration (b) the analysis of issues on return migration, especially implications for development (c) the formulation of strategies and programmes incorporating return schemes either to attract returnees (where deemed appropriate), or to maximise the contribution of their skills for the benefit of national development.

SECTION FIVE

POPULATION POLICY

AND

DEVELOPMENT PLANNING

POPULATION POLICY AND DEVELOPMENT PLANNING IN THE CARIBBEAN

Introduction

The development of population policies in the Caribbean Region passed through three distinct stages over the last three decades. The 1960s was a period of awareness of population problems and development of experimental family planning programmes to counteract the rapid population growth that emerged in many countries after World War II. During most of this period, the planning process tended to treat population growth components and economic factors in isolation. This was partly due to the fact that, prior to 1970, development planning was primarily concerned with ways of enhancing socio-economic development with output growth representing the dominant target.

By the 1970s, attention was shifted to a development strategy that focused on the provision of basic needs and the consequent improvement in the standard of living and quality of life. Despite this change of emphasis, population did not become one of the central variables in the planning exercise. Instead, this period witnessed further development in national family planning programmes to curb population growth and solve related problems. Indeed, the terms family planning and population policy were almost synonymous during that period.

The 1980s saw a broadening of the population issue to encompass areas wider than fertility ,mortality and growth rates to include concerns about the role and status of women; the effects of population structure on children, youth and the elderly; international migration; and more recently the relationships between population, resources, environment and sustainable development. This approach resulted from the acknowledgement of the interrelations between population and socio-economic development, put forward at the 1974 UNFPA World Population Conference in Bucharest

and reiterated in the 1984 follow-up Conference in Mexico. The basic implication is the recognition of the need to view socio-economic and demographic outcomes within an integrated framework.

Population policy - Definition

The term population policy, in this paper, incorporates the recent emphasis on population-development interrelations cited above. Moreover, it follows the general thinking that, since the ultimate goal of population policies is to improve the quality of life of the population, population programmes should be closely integrated into other social and economic policies. In this context, family planning is seen as an important and major element in the population policy, but one of several components operating within a total package of other social and economic programmes.

Thus, in this document, the emphasis will be on the experiences of governments in the development of explicit policies. The latter can be defined as a statement or document by a national government announcing its intentions or plan to influence the country' demographic structure.

Population Policy Development in the Caribbean

During the mid-1980s, the mechanism adopted by Caribbean Governments in response to demographic pressures was the development of explicit policies: nine countries[1] formulated population policies of which five were legally accepted in Parliament.

The pace and pattern of population policy development have varied widely among the countries, however, partly because of the differences in the availability of natural, human and capital resources, in national objectives, priorities and underlying strategies and partly because of differences in the nature of the

[1] Barbados; Belize; Dominica; Grenada; Jamaica; Montserrat; Saint Kitts and Nevis; Saint Lucia; Saint Vincent and the Grenadines.

demographic problems facing each country and the priority given to the solution of these problems.

Jamaica was the first country in the Caribbean to formulate an explicit population policy which was tabled and accepted in Parliament in 1983. Since then the population policies of four more countries have been officially adopted by the governments of Saint Lucia (1984), Dominica (1986), Grenada (1987), and Saint Vincent and the Grenadines (1988). The final drafts of the documents for four other countries were completed but have not yet been submitted to Cabinet. Other countries such as Trinidad and Tobago, Haiti and Turks and Caicos Islands are in different stages of the formulation process.

Population Policy - Constraints

According to the above definition, population policies should form part of the socio-economic planning process since population policy implementation involves the translation of policy goals into social, economic and demographic programmes. This linkage, however, has not yet been successfully achieved in the Caribbean.

Among the factors found to affect the level of effectiveness of population policy formulation have been data constraints; inadequate workable methodology; insufficiently trained personnel; and inappropriate institutional mechanisms.

With regard to the actual implementation of the policy, that is, the translation of policy goals into programmes and projects, the following additional constraints have been noted: (i) a lack of conceptual and empirical knowledge about the dynamic nature of the socio-economic-demographic system (ii) meager knowledge concerning appropriate policy responses to population problems; (iii) limited ability of government to formulate a coherent package that is sufficient enough to attain the objective of the policy.

It may also be equally pertinent to suggest that the small size of populations could play a role in shaping official attitudes to demographic dynamics and its perceived desirable or undesirable consequences for development. This is especially so in the case of the Caribbean where governments expect emigration to continue to play a major part in the reduction of the population growth.

Population in Planning

The above bottlenecks also militate against the ability of the Caribbean governments to integrate population issues more fully into their development planning process. Despite their conscious efforts to influence population factors through population policy formulation, an examination of their development plans reveals a vast gap between socio-economic planning and population planning. The current form of incorporation demographic inputs in the planning process has not progressed beyond the exercise of conducting population projections and estimating the implications of population age structure and growth for the demand for social services. In other words, population is still being treated as an exogenous variable in the planning framework.

In some countries this relatively simple approach seems to have run into serious problems of application because sectoral programming and target-setting have suffered from inaccurate demographic estimates and analyses. Also, selection of socio-economic policies and programmes, even in countries relatively advanced in the application of development planning, appears to be largely devoid of the consideration of their implications for demographic variables and processes.

Recently, the Population Units of Saint Lucia, Grenada and Saint Vincent and the Grenadines have attempted to go beyond this level and incorporate demographic factors into their Five Year Development Plans as well as harmonise population policies with socio-economic sectoral policies. These efforts are to be

commended but are still in the early stages of implementation.

Although the interactive aspects of the demographic-economic processes are highly complex, they must form an essential area of consideration in population-development planning. There are several reasons for this enormous gap between the awareness of the need for a comprehensive approach to population and development and actual practice. The more important ones are listed in the sections below.

Perception Versus Intervention Programmes

One of the reasons for this weakness in the integration of population issues in development planning results from the fact that a wide gap still exists between governments's perception of a population problem and the initiation of intervention programmes to resolve the situation. This is illustrated in the findings of the United Nation's "Sixth Population Enquiry among Governments" (United Nations, 1989). For example, of the sixteen Caribbean countries responding, none perceived its population growth rates to be "too low". On the other hand, five countries (Bahamas, Belize, Cuba, Guyana, and Suriname) indicated that their rates were "satisfactory", and that "no direct intervention" was being developed to affect these rates. This is inconsistent, especially in the case of Belize, which possesses one of the highest fertility and growth rates in the region.

But, perceptions and policies concerning emigration were much more complex and diverse than the case with fertility. To the extent that international migration plays a major role in determining population growth rates in the Caribbean region, (accounting for more than 50 per cent of the natural increase in many cases), the expected responses were mixed and, at times, conflicting. Seven countries (Antigua and Barbuda, Cuba, Grenada, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines and Barbados) considered their emigration rates to be

satisfactory and were intervening to maintain the situation except Barbados, which was trying to lower its rate. Six (Belize, Dominican Republic, Haiti, Jamaica, Suriname, and Trinidad and Tobago) were pursuing policies aimed at lowering rates perceived to be too high. Two (Dominica and Guyana) reported no direct intervention to lower rates although these were perceived to be too high (Table 1).

On the whole, inconsistencies can be observed between reported perceptions, intervention programmes and the related demographic situation of the specific country, despite basic demographic similarities among countries.

Institutional Mechanisms

Successful population policy implementation and the integration of population into planning depends, to a large extent, on the existence of a strong government planning organisation as well as effective institutional mechanism for linking population to the planning process. It is now being acknowledged that certain institutions are needed at different levels and stages of the policy formulation, implementation and planning process.

The basic structure being adopted by Caribbean countries consists of the establishment of (i) a Population Planning Unit located in the Planning Ministry and (ii) a National Population Council, an intersectoral body, for overall policy direction.

Population Councils

National Population Councils have been established in seven countries: Dominica, Grenada, Haiti, Jamaica, Saint Lucia, Saint Vincent and the Grenadines, and Trinidad and Tobago. The Council usually functions as an advisory board and is responsible for overall policy coordination, monitoring, and evaluation.

Although the United Nations Fifth Inquiry indicates that this agency has played a catalytic role in policy action and implementation among reporting agencies, in the Caribbean, it has been found that the success of this Council really depends on the kind of participation of its members. To a large extent, the Councils have not yet begun to achieve the expected impact due to a general inertia in population planning as well as the fact that population matters have to compete with other sectoral issues for the planners' priorities. Consequently, participation of the high-level officials has dwindled tremendously to the extent that the lack of a quorum constitutes a serious impediment to regular meetings.

Population Units

National Population Units have been established in the Planning Ministries of only four of the five countries that possess explicit population policies. The general function of the Unit is to assist in population policy implementation, integrating population factors into development planning and co-ordinating all population-influencing activities carried out by government. Specific functions vary among countries and depends on priorities given to the solution of population problems, the availability of resources and the existing organisational and administrative structure.

Although the achievements of some of these Population Units are noteworthy, most are experiencing constraints in carrying out their functions. Among the most difficult to overcome is the shortage of persons adequately trained in both demographic analysis and development planning. Another is the need to persuade sectoral ministries to modify their programmes or projects to achieve demographic objectives. The latter problem is exacerbated by the fact that population is often viewed as a competing sectoral concern, rather than an underlying process that interacts with other development processes. Moreover,

the population units are not yet in a strong position to influence sectoral decisions both because they lack control over budgetary resources, as well as they lack convincing analytical evidence of population-development linkages.

Against this background, it follows that greater emphasis needs to be placed on information, education, communication programmes to enhance the importance of the role of population in the development process and encourage government interest in resolving population problems as a part of development strategy. Equally urgent is the need to develop more research and training programmes relevant to the requirements of Caribbean governments in this area.

Research

A major obstacle to continued advances in population policy formulation and the integration of population in development plans has been the paucity of data, the lack of research and the limited use of research findings. Unfortunately, to date, much of the research and data have contributed little to policy formulation and effective population-development integration in planning. Existing analyses fail to address the more immediate operational concerns of policy makers and planners (Lin Lean Lim 1988).

Ultimately, planners are seeking the development of a model that would enable them to determine, for example, how much difference a decline of say one per cent in population growth rates should make in various economic indicators (such as education, employment). Conversely, planners are seeking quantitative answers to questions such as" what are the demographic consequences of major development programmes and projects; how much difference would, for example, five additional years of schooling have on fertility or mortality".

The three major research activities identified as necessary for

policy formulation and population-development integration consist of:

(i) Preparation of estimates of demographic levels and trends (fertility, mortality, migration, projections)

(ii) Ascertaining the nature and strength of demographic and developmental interaction (determinants and consequences of demographic change)

(iii) Conducting various forms of policy analysis (identification of population influencing policies; analysis of existing strategies and programmes; research on project/programme impact)(Horlacher, et.al. 1981).

One of the most important research tasks facing the population planning units is to demonstrate the importance of population in the process of national development and the feasibility of implementing alternative programmes for influencing population-development relationships.

Research Questions/Constraints

On the other hand, a major obstacle to integrating demographic with development plans is the fact that the quantitative effects of development processes on population change have been inadequately explored. Moreover, where general interrelations have been established with certain factors such as education, female employment or infant mortality and widely discussed or accepted, not enough is known of the effects in terms of expected order of magnitude, timing or pace of change once developments have been initiated - information which is required for programme planning (Stolnitz, 1987).

Research Policy Relevance

In the Caribbean, much of the research findings on the determinants and consequences of population factors need to be presented in a form that is

policy-relevant. Moreover, unfortunately, much of the research establishing links has not gone further to explore systematically the programmatic initiatives required to influence the desired demographic change or outcome. Moreover, few quantitative guides exist for establishing the extent to which programmed and unprogrammed demographic and development processes may reinforce or substitute for each other. This is illustrated, for example, in the following questions: what kinds of enhanced family planning programmes would be needed to compensate for shortcomings in school enrolment? or what is the joint effect of female employment programmes combined with an expanded system of family planning clinics? (Stolnitz, 1987).

Also consideration of the synergistic effects is limited. By synergism is meant that the same socio-economic determinant, for example, education, can operate independently on more than one intermediate variable (such as delay in having first child; choice of union (visiting, common-law, married); use of contraceptives; changes in aspirations, preferences) to influence a desired demographic outcome, resulting in a combined effect that is more than would be expected by the simple sum of the operation of each intermediate variable. But the synergistic effect can also occur in the reverse way; several social and economic programmes interacting to influence one specific demographic outcome (for example, the combined effect of women's employment, education improved health and nutrition, reduced infant mortality on fertility) (World Bank,1984).

Inadequate communication between data users and producers

The paucity of operationally useful research findings is, in large part, often attributed to inadequate communication between researcher and planner. Planners are often unable to articulate their information needs in a form that is amenable to analysis while researchers are often blamed for their disinterest in this kind of
analysis and their

unresponsiveness to the needs of the planning body. The establishment of closer formal and informal links between planners, policy makers and researchers is therefore essential to ensure, on the one hand, that research is more policy-oriented and relevant to planning concerns and, on the other hand, that policy makers and planners have access to and understand research results as well as are able to indicate directions for researchers to explore.

Data Collection

The building of a central store of data constitutes an essential input into the policy development activity. Although the availability and quality of demographic data in the Caribbean have improved significantly in the recent past, there still exists a data barrier hampering the efforts of population and development planners in most countries.

Two categories of population data have been identified for facilitating this process (i) primary population policy variables relating to size and growth of population, fertility, mortality, internal and international migration, and population age/sex distribution. Population projections by size, sex-age group and location for specific population groups are also among the primary data requirements. (ii) a variety of structural or behavioural data which explain, support or link population with specific social and economic factors and programmes.

There is an urgent need to sensitise data collectors to the information requirements of population policy formulation and implementation activities. The collection of most population data is currently carried out by the statistical offices of the region which,in most cases, function under a Ministry separate from the Planning Ministry.The disadvantage encountered is that, unless closer working ties are maintained between the statistical office, population planning unit and research institution, the data required for analysis and evaluation of demographic-economic relationships may be limited in scope.

Information/education/ communication

The successful implementation of a policy and the integration of population in planning requires high-level political support as well as a strengthening of interaction between statisticians, planners and policy makers. It is now recognised that one of the most effective mechanisms for achieving this is the promotion of an understanding and awareness of relationships between the socio-economic processes and population factors and the ways in which population issues are addressed by governments and individuals.

In this regard, governments with explicit population policies have begun to place high priority on "population exposure programmes" and dissemination activities which are viewed as operational aspects of their population policies. Population-development information is being disseminated via flyers, information kits, bulletins, and newsletters. In two countries (Jamaica, Grenada), an information/ education/ communication committee has been established as a sub-group of the population planning unit with specific responsibility for developing population-development information. In the initial stage, the major target groups have been the political directorate, planners and policy makers. However, a second phase has just begun in which attention is being shifted towards schools and the wider community.

Training

A common problem being faced by most countries in their efforts in policy formulation and implementation is the shortage of qualified persons adequately trained in demographic analyses and development planning. Moreover, the contribution of the regional training institutions to this area is almost non-existent.

The important role of the University of the West Indies in providing this kind of training cannot be overemphasised. In addition to the focus

on population-development interactions and other subjects mentioned in the research section above, the approach adopted should be to strengthen capabilities to analyse various dimensions of these interactions as a standard activity both in viewing the development process as well as formulating policies and programmes (Lin Lean Lim, 1987).

The aim would be to train a new corps of officials who would be assigned to the planning sector but would be able to reach out to other sectors and, on the basis of population phenomena, would coordinate the various population aspects of sectoral activities. In this context, the interdisciplinary nature of the programme content is evident. In mounting the training courses, it has been considered useful to group the actors involved in policy formulation and implementation into three broad categories. The first consists of high-level officials (policy-makers, Ministers, Parliamentarians). The second would comprise the professional, technicians and academics, while the third group is composed of other middle-level officials - the support staff to the planning and other sectors (UNFPA, 1985).

With regard to methodology, a recent assessment of the research needs in the Caribbean (Stolnitz, 1991) noted the need for special training in econometric and sociometric model-building which could usefully enhance the current level of population-development analyses. The need was identified for greater use of regression-type interpretations, as well as multiple equation models in addition to single equation models. The suggestion was put forward for the conduct of advanced classes on current main statistical modelling approaches to indirect estimation and interrelational analyses for mid-level demographers and other population- related personnel. These courses or "master classes" would be short-term in duration with the timing and operations designed to minimise disruptions of work schedules of participants. (Stolnitz, 1991).

World Population Plan of Action (WPPA) - Achievements and Required Updates

Population and Development Planning

Recommendations 1 to 4 of Section A in the WPPA are devoted to the subject "Socio-economic Development, The Environment and Population". The basic theme is that "Governments should take population trends fully into account when formulating their development plans and programmes" (Rec. 2). Also, "development strategies should be formulated on the basis of an integrated approach that takes into account the interrelationships between population, resources, environment and development" (Rec. 1).

In light of the above discussion, it is clear that although some progress has been made in the area, achievements have been minimal. Given the constraints identified, it is being suggested that additional recommendations be included to ensure that the specific training and research requirements of population development integration are fulfilled.

Suggested recommendations are as follows:

(i) Governments are urged to seek to establish stronger linkages and coordination among social and economic sectors involved in the social and economic planning process.

(ii) Family Planning Agencies should be encouraged to integrate their programmes more closely with other development programmes.

(iii) The word "development" in the context of this section should be updated in the WPPA to "sustainable development".

Population Policy Development

Recommendations 11 and 12 of Section C relate to Population Policy formulation and implementation.

Recommendation 11 urges governments " to adopt population policies and social and economic development policies that are mutually reinforcing". As earlier noted, five Caribbean countries have already completed and legally adopted explicit population policies since the adoption of the 1984 WPPA.(Jamaica, St. Lucia, Grenada, St. Vincent and the Grenadines, and Dominica). Four other countries also formulated the first drafts of policies which have not yet been submitted to Parliament (Barbados, Belize, Montserrat, and Saint Kitts and Nevis).

Two countries (Haiti and Trinidad and Tobago) have initiated some action on the drafting of a document. The following recommendations are being suggested:

(i) The adoption of population policies among approximately one-fifth of the Caribbean countries constitutes a commendable achievement in the region. Governments should however be urged to strengthen political commitment accelerate the legal adoption of more population policies within the other countries of the region.

(ii) Governments should also be encouraged to strive towards the development of quantitative policy goal targets to facilitate the monitoring and evaluation of the strategies and programmes.

(iii) Recommendation 12 relates to the implementation of the population policy and encourages governments" to provide adequate resources and, where appropriate, to adopt innovative measures for the implementation of population policy."

In light of the obstacles being experienced by the Population Units in the region, there is need to place greater emphasis on awareness creation activities, especially with respect to the sensitisation of the political directorate, planners and policy makers. Thus, governments should be urged to increase their efforts in the collection, analysis and dissemination of information on

population policy and programme planning.

In this regard, recommendation 74 should be reaffirmed. Also, a new recommendation (74b) should be added as follows: "Governments, with the assistance, as appropriate, of inter-governmental and NGOs, are urged to explore innovative methods for promoting awareness of interrelations between population and development and the need for incorporating population issues into the social and economic programmes among the political directorate, planners and policy makers".(Report of Caribbean Regional Meeting on Population and Development, Antigua, July, 1992).

(iv) The WPPA should also be updated to include a separate recommendation encouraging governments to strengthen the institutional mechanisms required for population policy implementation. In this respect, a new recommendation should be added as follows:" Governments are urged to strengthen existing institutional mechanisms and establish, where appropriate, Population Units and Population Councils as an essential policy implementation management tool. Governments are also urged to strengthen co-ordination among the population, social and economic sectors to harmonise sector goals and policies". (Report on Caribbean Regional Meeting on Population and Development, Antigua, July, 1992).

TABLE: 23

GOVERNMENTS' PERCEPTIONS AND POLICIES WITH RESPECT TO INTERNATIONAL EMIGRATION, BY LEVEL OF DEVELOPMENT, AREA OF RESPONSIBILITY OF REGIONAL COMMISSIONS AND GEOGRAPHICAL REGION, 1988

Rates too low		Rates Satisfactory				Rates too high		
No direct intervention reported (1)	Intervention to raise rates (2)	Intervention to raise rates (3)	Intervention to maintain rates (4)	No direct intervention reported (5)	Intervention to lower rates (6)	Intervention to lower rates (7)	No direct intervention reported (8)	Total number of countries (9)

C. Area of responsibility of the Economic Commission for Latin America and the Caribbean

Caribbean

Bahamas	Antigua and Barbuda Cuba St. Kitts and Nevis St. Lucia St. Vincent and the Grenadines	Barbados	Dominican Republic Haiti Jamaica Trinidad and Tobago	Dominica	13

Central America

	Costa Rica Honduras Panama	Mexico	Belize El Salvador Nicaragua	Guatemala	8

South America

Brazil Venezuela	Chile Colombia Peru	Ecuador Paraguay	Argentina Suriname Uruguay	Bolivia Guyana	12

Source: United Nations, World Population Monitoring 1989.
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