1974

World Population Year

THE POPULATION OF TRINIDAD AND TOBAGO

C. I. C. R. E. D. Series

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By
JACK HAREWOOD

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CONTENTS

CONTENTS – Continued

CONTENTS – Continued

CONTENTS – Concluded

LIST OF MAPS AND DIAGRAMS

LIST OF TABLES

LIST OF TABLES – Continued

LIST OF TABLES – Continued

LIST OF TABLES – Continued

CHAPTER 1

POPULATION GROWTH

Introduction

Trinidad and Tobago is a small country consisting of the two islands named plus a number of very small islands (about 12 off the coast of Trinidad and 4 off the coast of Tobago). The country is situated off the north-east coast of South America at 10–11 degrees North of the equator, and has a total area of about 5,130 square kilometres (about 1,980 square miles). Trinidad, the larger of the two islands, is approximately 4,825 kilometres in area, being 105 kilometres long and 75 kilometres broad. The island is mostly flat with a mountain range running across the north. The highest peak is just under 950 metres. Tobago is approximately 300 square kilometres in area, being about 50 kilometres long and about 20 kilometres broad. Tobago lies north-east of Trinidad from which it is separated by a channel about 30 kilometres wide. The topography of Tobago is broken with a central chain of peaks, its main ridge reaching a height of about 550 metres.

There is a great difference between the early history of the two islands after their discovery by Columbus towards the end of the fifteenth century. Trinidad remained Spanish for three hundred years until 1797 when it became British. During this period of Spanish rule, disappointed that there was no gold as reported, the Spanish did little to develop the island. Two of their most significant contributions to the future growth and structure of the population were: (a) the decimation of the native Amerindian population through their enslavement and the harsh treatment meted out to them; and (b) the encouragement of large-scale immigration of French planters and their slaves from neighbouring French Caribbean islands from 1783. (Williams, 2).

During this period, the history of Tobago, on the other hand, was an extremely turbulent one. Williams (2) points out that while "Trinidad suffered from the ineptitude and inefficiency of Spanish colonialism," "Tobago suffered rather from the competition of

rival colonialisms," the rivals including the British, the French, the Dutch and others. The final acquisition of the island by the British was in 1802.

The single, predominant determinant of population growth in Trinidad and Tobago, as in the rest of the Caribbean, was the sugar cane plantation, though this became important, particularly in Trinidad, much later than in most of the other West Indian colonies. In Trinidad and Tobago as elsewhere in the Region, in order that these islands could best bring profit to the fortunate few through the plantation cultivation of sugar cane, the major problem to be faced was that there was abundant land and boundless opportunity but an extreme shortage of the unskilled labour so vital to the plantations. The principal population policy objective was, therefore, to bring in an adequate work force so that the area could be economically exploited.

From the period of early settlement, then, over an extended period of about two centuries, the European colonizers brought in people from wherever they could best be obtained – Europe, Africa, Asia – and under whatever terms they could most economically be obtained – slavery, indentured contract, free immigration. Although there were important inflows of free immigrants, the principal sources of labour were unfree – slavery up to the early nineteenth century and indentured labour thereafter up to 1917. There were two main reasons why unfree labour was preferred by the sugar planters: first, the plantation cultivation of sugar demanded a very large, unskilled labour force, with a particularly high seasonal demand at harvest time; and secondly, given the vast areas of land available, it proved virtually impossible to ensure an adequate supply of labour for the plantations among free immigrants, who generally preferred to obtain and work their own lands.

The above pattern is similar for most of the Caribbean. The island of Trinidad (as well as the mainland colony of British Guiana – now Guyana) differed from the remainder of the then British Caribbean in that when the slave trade was abolished in 1807, sugar planting had not been very long established, and there remained a considerable area of uncultivated and unused land which could be developed for further sugar plantation. After the emancipation of slaves in 1834, the planters were able to ensure a continued inflow of unfree labour through indentured immigration, mainly from India,

but also from Madeira, Africa and, to a lesser extent, from China and other sources. There was, also, particularly from about 1870, a significant number of free West Indian immigrants of African origin, coming from Barbados and the other smaller British islands near-by.

The predominant importance of immigration in population growth ended by the first decade of the present century. Since then, the primary influence on population growth came first from the large and rapid decline in mortality and later from the high level of fertility. A more detailed but concise discussion of population growth up to the present time follows:

Before the Period of Censuses

Although both Trinidad and Tobago were sighted by Columbus during his voyages towards the end of the fifteenth century, there was little European interest in these (and other) Caribbean islands during the sixteenth century, during which period there was a Spanish colony of small importance in Trinidad. European colonies were established in many of the islands during the seventeenth century and during the eighteenth century, with its many wars, many of the islands kept changing hands. Trinidad was captured by the British from the Spaniards in 1797, and Tobago, after changing hands a number of times, finally remained British from 1802.

During the 100 years up to about 1775, the populations of most of the Caribbean islands increased rapidly, largely due to the importation of African slaves. By this year, the population of Jamaica was nearly 210,000 and that of Barbados about 87,000, the number of slaves being 193,000 and 68,500 respectively. The estimated population of Tobago in 1787 was about 13,000, with 10,500 slaves, but in Trinidad, as late as 1783 there were less than 3,000 persons of whom only 300 were slaves.

An important event was the opening of Trinidad to European settlement by Spain in 1783. This drew settlers from the French islands, from Grenada and to a less extent from other British islands. Thus by 1797 the population of Trinidad was over 17,600 of whom 10,000 were African slaves. (Williams 2). By 1805, the population of Barbados had declined by about 10,000 since 1773, to 77,000 and the population of the Leeward Islands at 99,000 was virtually the same as it had been 30 years earlier. The population of Trinidad, however, had increased to 30,000 and was then nearly twice as large as that of Tobago (16,500).

As compared with the other British islands, the slave population of Trinidad was a relatively small proportion of the total. Thus, only about two-thirds of the population of Trinidad were slaves in 1805 as compared with 90 per cent in Tobago and 80–90 per cent in most of the remaining islands. The first slave registrations under The Slave Registry Act of 1817 showed that there were about 24,000 slaves in Trinidad and 15,000 in Tobago in 1817, as compared with 346,000 in Jamaica, 77,000 in Barbados, and 76,000 in the Leeward Islands as a group. The islands of Grenada (28,000) and St. Vincent (25,000) in the Windwards both had more slaves than Trinidad at that time.

According to the Compensation Returns of 1834, when the slaves were emancipated, there were about 21,000 slaves in Trinidad and 11,500 in Tobago as compared with 311,000 in Jamaica, 83,000 in Barbados and 83,000 in British Guiana (now Guyana) (See Table 1A).

The Period of the Censuses

Following a circular instruction from the Secretary of State for the Colonies, most British colonies in the Caribbean, including both Trinidad and Tobago, held a census on 3rd June 1844. The only colonies not included were those which had held a census of population shortly before. Trinidad and Tobago were not, at the time, a single administrative unit, and they became a combined colony only in 1889. Censuses of Population were held independently, though at the same time, in the two islands in 1844 and during the remainder of the nineteenth century, at ten-yearly intervals beginning 1851. Combined censuses for Trinidad and Tobago started in 1901 and, during the present century, were held at 10-yearly intervals to 1931. There was no census in 1941 because of the Second World War, but immediately after the war, in 1946, the postponed census was held, and thereafter censuses have been held in 1960 and 1970.

The population of Trinidad and Tobago for each of the above censuses, and the inter-censal population growth for each period are shown in Table 1B. (For the censuses in the 19th century the figures for Trinidad and for Tobago are added together in the table.) At the first census in 1844, the population was 73,000 of whom 59,800 were in Trinidad and 13,200 in Tobago. By the turn of the century the combined population was 273,900 or three and three-quarters the size at the first census 57 years earlier. By 1970, the

TABLE 1A. ESTIMATED POPULATION OF THE BRITISH CARIBBEAN, 1764–1787, 1805–1810 AND 1844, AND SLAVES REGISTERED 1817–1834

Territory	Vicinity of 1775					1805–1810				
	Year	Total	White	Free Col.	Slaves	Year	Total	White	Free Col.	Slaves
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Barbados ...	1773	87,080	18,532	–	68,548	1805	77,130	15,000	2,130	60,000
Jamaica ...	1775	209,617	12,737	4,093	192,787	1805	..	..	..	308,775
Leeward Is. ...	1774	98,260	7,990	–	90,270	1805	99,018	8,400	2,118	88,500
Trinidad ...	1783	2,763	126	2,327[d]	310	1805	30,076	2,434	7,534	20,108
Tobago ...	1787	12,986	1,397	1,050	10,539	1805	16,483	900	700	14,883
Montserrat ...	1773	22,853	3,350	750	18,753	1805	26,491	1,594	2,822	22,083
Grenada ...	1771	28,287	1,661	415	26,211	1805	21,900	1,100	800	20,000
St. Lucia ...	1772	15,476	2,018	663	12,715	1810	17,485	1,210	1,878	14,397
St. Vincent ...	1764	9,518[f]	2,104	–	7,414	1805	18,550	1,600	450	16,500
Br. Guiana ...	1782	..	..	..	34,700	–	–	–	–	–
Br. Honduras		–	–	–	–	1816	3,824	149	933	2,742
Total ...					462,327					567,988[k]

Territory	Year[a]	Slaves registered		Census population 1844
		Number	Final No.[b]	
	(11)	(12)	(13)	(14)
Barbados ...	1817	77,493	83,150	122,198
Jamaica ...	1817	346,150	311,070	377,433
Leeward Is. ...	1817	75,550	69,252	85,668[c]
Trinidad ...	1817	23,828[h]	20,657	59,815
Tobago ...	1819	15,470	11,589	13,208
Montserrat ...	1817	17,959	14,175	22,469
Grenada ...	1817	28,029	23,638	29,650
St. Lucia ...	1816	16,285	13,291	20,694[e]
St. Vincent ...	1817	25,218	22,266	27,248
Br. Guiana ...	1817	101,712	82,824	98,133[g]
Br. Honduras	1823	2,468[i]	1 901	10,000[j]
Total ...		730,162	653,813	866,516

[a]Year of the first available return under Slave Registry Act, 1817.

[b]According to Compensation Return of 1834.

[c]Including estimate for Anguilla (2,179): Census year in Virgin Is. was 1841.

[d]Including 2,032 Indians.

[e]Census year in St. Lucia was 1843.

[f]Includes Caribs some thousands of whom were deported to the Bay of Honduras in 1798.

[g]Census year in British Guiana was 1841.

[h]From Annual Population Return. [i]Census.

[j]Rough Estimate only. [k]Exclusive of slaves in British Guiana.

Source: West Indian Census 1946, Volume 1, Part A.

TABLE 1B. GROWTH OF POPULATION FOR CENSUS PERIODS, 1844–1970

Inter-censal period	No. of years in interval	Total population at end of interval	Total growth	Annual rate of growth (per cent)
1844–1851	7	82,978	9,955	1.84
1851–1861	10	99,848	16,870	1.87
1861–1871	10	126,692	26,844	2.41
1871–1881	10	171,179	44,487	3.06
1881–1891	10	218,381	47,202	2.46
1891–1901	10	273,899	55,518	2.29
1901–1911	10	333,552	59,653	1.99
1911–1921	10	365,913	32,361	0.92
1921–1931	10	412,783	46,870	1.21
1931–1946	15	557,970	145,187	2.03
1946–1960	14	827,957	269,987	2.87
1960–1970 (a) ...	10	940,719	112,762	1.29
1960–1970 (b) ...	10	1,021,030	193,070	2.12*

*See footnote 1 on page 11.

official census count was 940,700 so that in 69 years the population had grown to three and a half times the size at the beginning of the century. (Diagram 1.1)

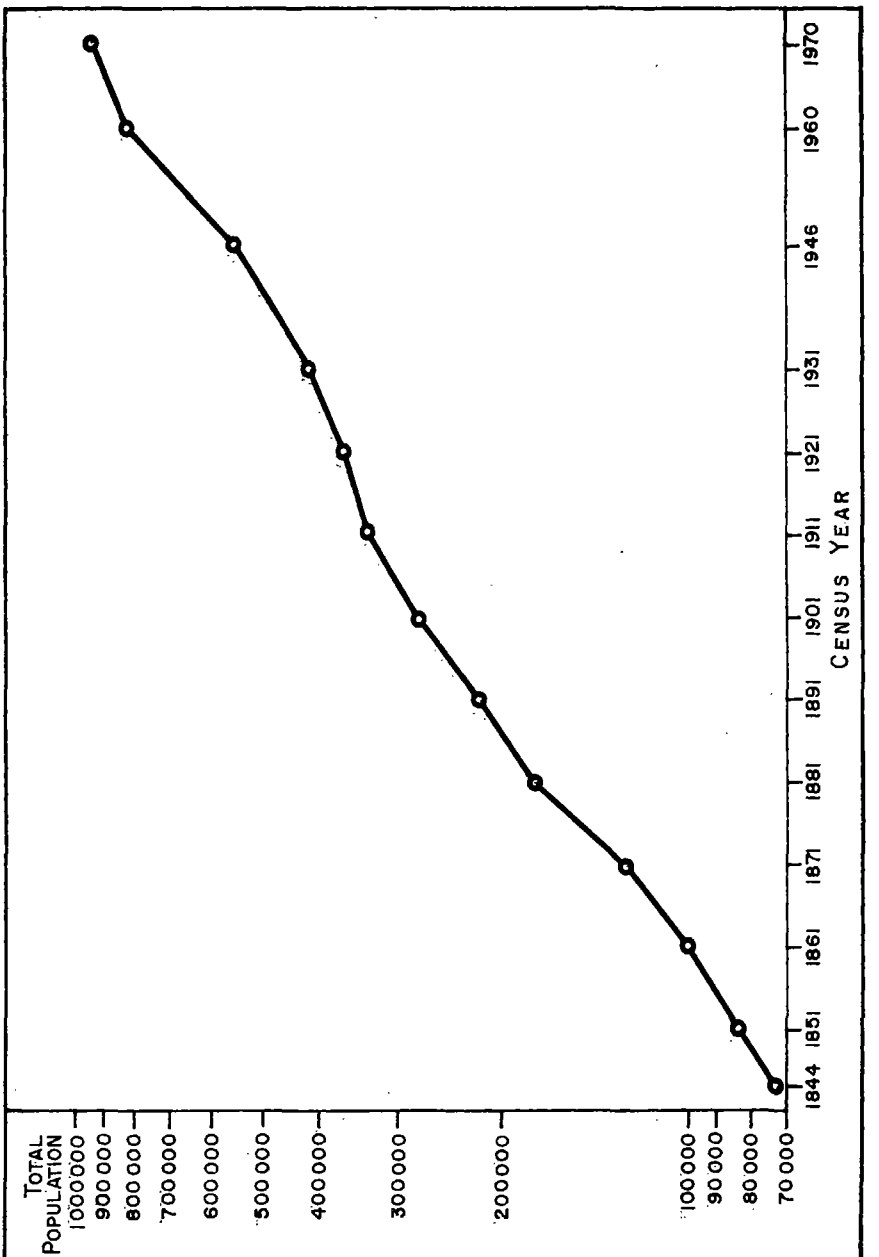
This whole period of censuses can be conveniently divided into four broad phases of growth: 1844–1881; 1881–1921; 1921–1960; and 1960–1970.

1844–1881:

This was a period of high and continually increasing population growth, the rate of growth exceeding 3 per cent for the only inter-censal period in our history, in the decade 1871–1881.

By far the most important component of growth in this period was immigration, most of it indenture immigration. According to Roberts and Byrne (1), of the total growth of 98,200, recorded *net* indenture immigration (i.e. excluding indentured immigrants known to have returned to India) amounted to 72,700 or 74 per cent. In addition there was significant immigration into Trinidad from Barbados and other neighbouring British islands because of the shortage of labour and resulting comparatively high wages in Trinidad. In

DIAGRAM 1.1 POPULATION GROWTH, 1844 — 1970



the final decade of the period under review (1871–1881), total estimated immigration was 38,800 of which only 55 per cent was indenture immigration, and the remainder were mainly from the West Indies.

It is clear, therefore, that most of the population growth in the period 1844–1881 was through immigration, and that natural increase was relatively negligible. Thus, for the decade 1871–1881, the only inter-censal period for which a breakdown of the total growth into natural increase and immigration is available, the natural increase was only about one-tenth of total increase.

1881–1921

By contrast with the preceding period, the period 1881–1921 was one in which the rate of population growth declined steadily. Although less than the record period of 1871–1881, the two succeeding decades both had a rate of growth that was well over 2 per cent per annum, and were, therefore, still a period of relatively high growth. In the first decade of the present century the rate of growth was just under 2 per cent, but it fell steeply to 0.9 per cent in the inter-censal decade 1911–1921, the only inter-censal period ever, with a growth rate of under 1 per cent.

During this 40-year period the population more than doubled. Although the rate of increase was declining throughout the period, during the first three decades the actual growth was rising from an average of 4,700 persons per year in the decade 1881–1891 to 6,000 persons per year in the decade 1901–1911. In the final decade of this period, however, i.e. the decade 1911–1921, only an average of 3,200 persons per year were added to the population, the lowest growth since 1871.

During the three decades 1881–1911 population growth continued to be largely the result of massive immigration into Trinidad. Thus in the decades 1881–1891 and 1891–1901 net immigration contributed 77 per cent and 66 per cent respectively of total population growth. In the first decade of the present century the net immigration was less but still substantial, contributing 48 per cent of total growth. Natural increase was, however, slowly becoming more important and by the first decade of this century, for the first time, exceeded net immigration as a contributor to total population growth.

The rate of population growth in the period 1881–1911 was much higher than that of the other British colonies, the next largest rate of

growth being in Guyana (then British Guiana) which also received massive immigration. Because of its very rapid growth, the population of Trinidad and Tobago had, by 1891, exceeded that of Barbados for the first time, and by 1911 (British Guiana did not have a census in 1901) it exceeded the population of British Guiana. Since that time, the population of Trinidad and Tobago has been second only to that of Jamaica in the British West Indies. The relatively rapid rate of growth in Trinidad and Tobago in large measure reflects the fact that while there continued to be a significant net immigration into Trinidad and also to British Guiana, there was, during the period 1881–1921 a substantial net emigration from most of the other countries to Panama, other Central American and Caribbean countries and to the United States of America.

The very low rate of growth in the decade 1911–1921, in Trinidad and Tobago as in the rest of the British West Indies, is associated with two factors: a substantial outward movement, and increased mortality. Neither Trinidad and Tobago nor British Guiana suffered the considerable migration loss of Jamaica (about 77,000) and Barbados (over 24,000) in this decade, but on the other hand, the very large net migration gains of about 26,000 for Trinidad and Tobago and 23,000 for British Guiana of the preceding decade were replaced by a small loss through migration in both of these countries of traditional high immigration. Indenture immigration, for so long the principal source of immigrants into Trinidad and Tobago and British Guiana, formally ended in this decade, in the year 1917 and indeed the net emigration from Trinidad and Tobago in this decade, resulted from the small return of migration to India.

Most colonies experienced a marked increase in mortality in the decade 1911–1921, mainly associated with the influenza pandemic of 1918.

1921–1960

From 1921, the rate of population growth which had been declining during the preceding 40 years, started to increase again. The annual inter-censal rate of growth was 1.2 per cent for the decade 1921–1931 and was still appreciably lower than any other inter-censal period except the preceding one. But in the two succeeding inter-censal intervals, the rate of growth of population was once again very high, being 2 per cent in the period 1931–1946, and nearly 3 per cent for the period 1946–1960.

By the end of this period, the population, now 828,000,was about 2¼ times the size in 1921. The increase in actual numbers was therefore most impressive. The average annual increase in the decade 1921–1931 was 4,700 persons, which was higher than for the preceding very low inter-censal period, and the same as for the period 1881–1891, but was lower than for any other inter-censal period since 1881. However, while the highest annual growth till then in any inter-censal period had been about 6,000 persons, in the inter-censal period 1931–1946 the population grew by about 9,700 persons per year, and in the period 1946–1960 by about 19,000 persons per year.

Since 1921 immigration has ceased to be the principal component of population growth. In the decade 1921–1931, net immigration was only 2,100 (about 7 per cent of total growth), resulting from a loss through return migration to India of about 4,000 and a gain from other sources of 6,100. On the other hand there was an increase in the number of births and a decline in the annual number of deaths as compared with the preceding decade. In the period since 1931, the number of births increased further, from an average of 12,400 per year for the period 1921–1931, to 15,900 and 26,100 in the two succeeding inter-censal periods. On the other hand, the number of deaths per year continued to decline, despite the rapidly growing population, so that natural increase has grown dramatically.

In the inter-censal period 1931–1946, which included the Second World War, net immigration was again important for a short time. The average annual net immigration of 1,600 persons for this inter-censal period is by far the highest since the end of the first decade of the present century. In this period 1931–1946 net immigration contributed 17 per cent of total population growth. Net migration was again negligible in the period 1946–1960, and comprised only about 3 per cent of total population growth. In this inter-censal interval there was a significant net immigration only in the two years or so following the decision, in 1958, to site the capital of the now defunct Federation of the West Indies in Trinidad.

1960–1970:

In the inter-censal period 1960–1970, once again there has been a reversal of the trend and the rate of population growth has fallen. As compared with an increase of about 3 per cent per annum in the preceding inter-censal period, population growth in the decade 1960–1970 has been estimated at between 1.3 per cent per annum (based on the 1970 census count) and 2.1 per cent (based on the "expected"

census population).[1] The lower census figure suggests a rate of population growth of less than one half of that of the preceding intercensal period, while the higher "expected" figure implies a growth rate of about three-quarters of the preceding period and about the same as for the period 1931–1946.

In terms of actual numbers, the average population growth was between 11,300 and 19,300 per year, the higher figure being identical with that for the preceding period 1946–1960. Natural increase was slightly higher in the period 1960–1970, but for the first time in its history the country experienced a substantial net emigration of between 4,600 and 12,600 persons per year. This migration loss was a minimum of 20 per cent of natural increase and a possible 53 per cent if the census count is correct.

[1] It is generally believed that there was appreciable under-enumeration in Trinidad and Tobago in 1970 because the census enumeration took place during a period of extreme political and social unrest, which culminated in the declaration of a state of emergency two weeks after Census Day. Undoubtedly because of this, the Central Statistical Office continues to publish mid-year estimates derived by adding natural increase and net migration to the 1960 census population. This approach gives an "expected" population at census time in 1970 of 1,021,030 or 8.5 per cent more than the census count of 940,719. The writer has, therefore, in most instances, in this Monograph, shown two figures for 1970; the first "(a)" based on the 1970 census count, and the second "(b)" based on the "expected" population. While this is unsatisfactory in many respects, it will be seen that the difference between many of the vital rates and other measures derived from the two populations is not appreciable. In hardly any case would the general conclusions be affected if one figure is used in preference to the other.

Summary

Until the late eighteenth century, the population of Trinidad was considerably lower than that of most of the other British West Indian islands, including Tobago. With the abolition of slavery in 1834, Trinidad, like the neighbouring Guyana (then British Guiana) was too sparsely populated for development within the framework of the sugar-cane plantations. Large-scale immigration therefore followed, mostly indentured from India, as well as from other sources; but there was also appreciable free immigration from the neighbouring British West Indian islands. It was not until 1891 that the combined population of Trinidad and Tobago exceeded that of Barbados, and by 1911 the population of Guyana was also exceeded.

Censuses of population have been carried out regularly, except for the break during World War II, since 1844. The period 1844–1881 was one of continually increasing population growth, the most important component of growth being immigration. In the period 1881–1921 the rate of population growth declined steadily for the most part as the result of declining immigration, but in the decade 1911–1921 also because of a marked increase in deaths associated with the influenza pandemic of 1918. Although the numbers of immigrants were falling, net immigration remained by far the most important component of growth up to the end of the last century, and was still very important (48 per cent of total growth) in the first decade of the present century. Immigration was, however, negligible in the decade 1911–1921.

In the period 1921–1960, the rate of population growth again increased. In this period, immigration was important for a few years during the Second World War, and again for the two years following the decision, in 1958, to site the capital of the now defunct Federation of the West Indies in Trinidad. While the immigration was intensive in these short periods, taken as an average over the respective inter-censal periods, internal migration was no longer important as it used to be. The highest inter-censal-contribution was in the interval 1931–1946 when it contributed 17 per cent of population growth. The very impressive increases in population since 1921, and particularly since 1946, are the result of a stable or declining number of deaths, and a considerably increased number of births.

In the final inter-censal interval 1960–1970, the rate of population growth has again fallen very appreciably. Natural increase per annum was slightly higher than in the preceding inter-censal period, but for the first

time in its history Trinidad and Tobago experienced a very substantial net emigration. Because of some uncertainty about the final census figures for 1970, most of the growth figures are shown as a range based on the census population on the one hand, and the higher "expected" population on the other.

CHAPTER 2

COMPONENTS OF POPULATION GROWTH

Introduction

The predominant importance of immigration in population growth ended by the first decade of the present century, and since 1921 the primary influence has come from natural increase. At first, that is from 1921 till the end of the Second World War, it was the rapid decline in the death rate that was most important. Since then, mortality has continued to decline at a somewhat lower rate, but even more important has been increasing births and fertility. In the last inter-censal interval (1960–1970), there has been a decline in the birth rate and, for the first time, significant emigration from Trinidad and Tobago, so that population growth has been much less than in most preceding inter-censal intervals.

International Migration

Since the abolition of the slave trade and its immigration of forced labour, there have been three main streams of international migration which have affected the population growth of the country. First is the most important indenture immigration of workers which continued from soon after the emancipation of the slaves up to 1917 when it was abolished; next is the immigration into Trinidad of free workers, mainly of African descent and from the neighbouring British West Indian islands, which also started soon after the emancipation and has continued, at varying levels, up to the present time; and finally, there is the outward movement of persons from Trinidad and Tobago to North America and other places outside of the Commonwealth Caribbean, which has become significant only within the last decade. Each of these streams is now considered.

Indenture Immigration:

As was indicated earlier, there was a serious shortage of labourers for the sugar estates in Trinidad (as in Guyana) at the time of the emancipation of the slaves in 1834. Fears on the part of many planters that the labour situation would worsen to such an extent as to threaten the continued existence of the plantation sugar industry appeared to be justified when, soon after the abolition of slavery, exports of sugar

began to decline and the 1839 crop appeared to be in danger for want of labour. In addition, many planters in the 1830's foresaw that there would be considerable increases in wage rates with the end of the Apprenticeship system, promised for 1840, unless labour increases could be assured through continued large-scale labour immigration.

The eventual "solution" was the importation of workers under contract from a variety of sources, but mainly from India, the cost of this indenture immigration being subsidized by the Government. Between 1834 and 1918 nearly 158,000 migrants were introduced into Trinidad under indenture (Roberts and Byrne – 9). One of the earliest sources of these indentured immigrants was Africa which provided nearly 9,000 immigrants in the period 1834–1867. Among these were some immigrants from Sierra Leone, but despite assiduous efforts to attract workers from this source to Trinidad and British Guiana, the numbers were small. The majority of these African indentured workers were slaves freed by the British Navy in the course of its campaign against the Atlantic slave trade. Another early source of indentured immigrants was the United States of America from which about 1,300 Negroes came to Trinidad, most of them in the period 1835–1840. Small numbers of indentured immigrants also came from China and from the Portuguese islands. (See Table 2B).

But the principal source of indentured immigrants to Trinidad was India which provided nearly 144,400 immigrants in the period 1838–1918, or over 90 per cent of all indentured immigrants. Of this figure, it is estimated that about 29,500 (about one-fifth) returned to India.

The contribution of indenture immigration to the population growth of Trinidad (excluding Tobago) is shown in Table 2A below.

The full information for the table is not available for the period before 1871. But the overwhelming importance of indenture in the period 1844–1871 is seen from the fact that during that period total population growth amounted to 49,800 while the net number of migrants brought in under indenture was 49,200 – all but 1 per cent of the total growth. Indeed, for the first two inter-censal periods (1844–1851 and 1851–1861) the total number of migrants recorded under indenture and related schemes exceeded total population increase, implying a natural decrease. In the decade 1861–1871 indentured migrants amounted to 78 per cent of total population increase.

In the fifty-year period 1871–1921, indenture migration declined, as a proportion of total population growth, from 50 per cent in the first decade to 13 per cent for the decade 1911–1921. The decline was

TABLE 2A COMPONENTS OF INTER-CENSAL POPULATION INCREASE FOR TRINIDAD (ONLY) 1844–1921

Inter-censal period	Total increase	Natural increase		Migration increase		Recorded indentured		
		Numbers	Per cent*	Estimated				
				Total	Free	Total	Indian	Per cent**
1844–1851 ...	8,785	–	–	–	–	13,116	5,568	
1851–1861 ...	15,838	–	–	–	–	16,492	13,885	
1861–1871 ...	25,200	–	–	–	–	19,603	17,721	
1871–1881 ...	43,490	4,666	10.7	38,824	17,038	21,786	21,786	56.1
1881–1891 ...	46,900	10,892	23.2	36,008	15,658	20,350	20,350	56.5
1891–1901 ...	55,120	18,913	34.3	36,207	22,641	13,566	13,566	37.5
1901–1911 ...	57,642	30,120	52.3	27,522	9,851	17,671	17,671	64.2
1911–1921 ...	29,733	28,859	97.1	874	–3,070	3,944	3,944	451.2
Total ...	282,708					126,528	114,491	

*Of Total Increase

**Of Total Migration Increase

TABLE 2B. SOURCES OF INDENTURED AND ASSOCIATED IMMIGRATION INTO TRINIDAD 1838–1918

Period	Source of immigrants							
	India			Maderia, Cap Verde & Azores	Liberated Slaves & Other Africans	Chinese	Other	Total (net)
	Inward	Outward	Net					
1838–1844 ...	–	–	–	–	469	–	1,223	1,692
1844–1851 ...	5,568	–	5,568	725	6,713	–	110	13,116
1851–1861 ...	16,262	2,377	13,885	172	1,447	988	–	16,492
1861–1871 ...	19,310	1,589	17,721	–	225	1,657	–	19,603
1871–1881 ...	24,631	2,845	21,786	–	–	–	–	21,786
1881–1891 ...	25,539	5,189	20,350	–	–	–	–	20,350
1891–1901 ...	20,979	7,413	13,566	–	–	–	–	13,566
1901–1911 ...	24,980	7,309	17,671	–	–	–	–	17,671
1911–1928 ...	6,670	2,726	3,944	–	–	–	–	3,944
Total ...	143,939	29,448	114,491	897	8,854	2,645	1,333	128,220

Source: G.W. Roberts and J. Byrne, (1966).

fairly steady, except that in the decade 1891–1901 indenture immigration was appreciably lower than either the preceding or the following decade. In actual numbers, indentured migrants increased to about an average of 2,000 per year for the decade 1861–1871 and was slightly higher in the two succeeding decades. The average fell to less than 1,400 per year in the decade 1891–1901 and then increased again to nearly 1,800 per year in the decade 1901–1911 before falling off in the final period of indenture immigration.

As will be seen from Tables 2A and 2B, from 1871 onwards all indentured migration was from India. In the first inter-censal period 1844–1851, the most important group of indentured immigrants were liberated slaves and other Africans, and Indians accounted for only 42 per cent of all indentured migrants. Thereafter, Indians comprised the vast majority of indentured migrants.

Other Immigration:

Among the other streams of immigration into Trinidad and Tobago, the largest was voluntary immigration of persons of African descent from the other neighbouring West Indian islands. The Government of Trinidad had, soon after emancipation, "encouraged the importation of Negroes from the other West Indian colonies by paying a sum ranging from $5 to $30 as passage money for each immigrant introduced". In the period 1839–1845 it is estimated that there were over 10,000 such immigrants, but with the commencement of indentured Indian immigration, this financial assistance ceased and immigration from the other West Indian islands was small for some decades. (Kuczynski – 5). With the introduction of a Public Works programme in the early 1870's, immigration from the other West Indian islands increased greatly. (Johnson – 4). Table 2A shows the estimated "free" immigration into Trinidad (only) from 1871 to 1921. In the two decades 1871–1881 and 1881–1891 free immigration averaged 1,600–1,700 per year, but the number rose very appreciably to nearly 2,300 per year in the next decade. This final decade of the last century was the only inter-censal period in the fifty-year period 1871–1921 in which "free" immigration exceeded indentured immigrants.

In the first decade of the present century free immigration fell to less than 1,000 persons per year and was only slightly more than one-half of the number of indentured immigrants during the same period. In the following decade, which included the First World War, there was actually a reversal in the flow of free migrants, and for the first time

Trinidad experienced a net loss of about 3,000 persons (excluding indentured immigrants).

Total immigration (indentured plus free) into Trinidad was therefore at a rate of 3,600–3,800 per year in the last three decades of the last century, fell to about 2,800 per year in the first decade of the present century, and was negligible in the decade 1911–1921 which saw the end of indentured immigration and a net outflow of other migrants. The considerable importance of immigration for population growth up to the end of the last century is seen from the fact that net immigration accounted for two-thirds of the total population growth of Trinidad in the decade 1891–1901, three-quarters of growth in the preceding decade, and nearly 90 per cent of total growth in the decade 1871–1881.

Table 2C shows the components of population growth for the inter-censal periods during the present century, for Trinidad and

TABLE 2C: COMPONENTS OF POPULATION GROWTH 1901–1970

Period	No. of years	Total (thousands)					
		Total growth	Births	Deaths	Natural increase	Estimated migration balance*	Migration as % of total growth
1901–1911 ...	10	59.6	109.9	75.6	34.3	+25.3	42.4
1911–1921 ...	10	32.4	118.3	82.8	35.5	− 9.6	99.6
1921–1931 ...	10	46.9	123.5	79.7	43.8	+ 3.1	6.6
1931–1946 ...	15	145.2	238.9	117.9	121.0	+24.2	16.7
1946–1960 ...	14	270.0	365.4	104.2	261.2	+ 8.8	3.3
1960–1970 (a) ...	10	112.8	307.4	68.2	239.3	−126.5	−112.1
1960–1970 (b) ...	10	193.1	307.4	68.2	239.3	− 46.3	− 24.0
		Annual average (thousands)					
1901–1911 ...		6.0	11.0	7.6	3.4	+ 2.5	
1911–1921 ...		3.2	11.9	8.3	3.6	− 0.3	
1921–1931 ...		4.7	12.4	8.0	4.4	+ 0.3	
1931–1946 ...		9.7	15.9	7.9	8.1	+ 1.6	
1946–1960 ...		19.3	26.1	7.4	18.7	+ 0.6	
1960–1970 (a) ...		11.3	30.7	6.8	23.9	−12.6	
1960–1970 (b) ...		19.3	30.7	6.8	23.9	− 4.6	

*Migration is derived as a balancing figure in inter-censal growth.

Tobago. [1] In the first decade of the century, migration was an important contributor to the growth of population, accounting for 42 per cent of total growth. As was pointed out earlier, this was the closing phase of the period of high immigration starting in the nineteenth century.

In the two decades after 1911, migration to Trinidad and Tobago was very small and almost cancelled itself out, being negative in the period 1911–1921 and positive in the following decade. In the decade 1911–1921, indentured immigration which formally came to a close in 1917 was less than one-half of the previous decade, and migration from the neighbouring islands and other sources was negative. In the period 1921–1931, which included the period of the world depression, migration was again very small.

In the inter-censal period 1931–1946 net immigration was again a fairly important contributor to population growth, but by no means as important as in the period 1901–1911. Following the opening of the U.S. bases in this country during the Second World War, there was a large-scale immigration of persons, especially from the smaller islands of the British West Indies, the greatest number coming during the period 1940–1943. While the recorded volume of net immigration during the two years 1941 and 1942 (20,000) was larger than for any other two-year period in the century, for the inter-censal period as a whole, the annual average immigration was less than in the first decade of the century.

For the period 1946–1960, there is evidence that there was fairly large-scale net immigration from the other islands, especially at the beginning and again at the end of the period. The fact that this very high rate of immigration took place for only a relatively short time, has resulted in the average immigration for the whole period being comparatively small, about 3 per cent of total increase. This should not detract, however, from the importance of the very rapid expansion of net migration into the country during the short period that Trinidad was the capital of the now defunct West Indies Federation. Thus, in 1958 and 1959 net immigration is estimated at 11 per cent and 13 per cent respectively of total growth, as compared with 3 per cent for the period 1946–1960 as a whole.

The migration estimates, derived as balancing figures, give no indication of the gross movement of persons in to and out of the country.

[1] The figures for migration in this table are less than in Table 2B since migration in to Trinidad from Tobago is excluded from the former.

TABLE 2D: ANNUAL NET MIGRATION AND ANNUAL NATURAL INCREASE FOR SELECTED COMMONWEALTH CARIBBEAN COUNTRIES – 1881–1970

Country	Period	Annual net emigration (–) or immigration (+)[1]	Annual natural increase	Col. (A) as percent of Col. (B)
		(A)	(B)	
Jamaica	1881– 91	– 2,500	8,300	– 30.1
	1891–1911	– 2,200	11,800	– 18.6
	1911– 21	– 7,700	10,400	– 74.0
	1921– 43	+ 1,200	16,100	+ 7.5
	1943– 60	–11,600	33,300	– 34.8
	1960– 70	–29,200	53,000	– 55.0
Barbados	1881– 91	– 800		
	1891–1911	– 2,500	2,000	–125.0
	1911– 21	– 2,400	900	–266.7
	1921– 46	– 100	1,500	– 6.7
	1946– 60	– 1,300	4,100	– 31.7
	1960– 70	– 3,600	4,200	– 87.2
Trinidad and Tobago ...	1881– 91*	+ 3,600	1,100	
	1891–1901*	+ 3,600	1,900	
	1901– 11	+ 2,500	3,400	+ 73.8
	1911– 21	– 300	3,600	– 8.7
	1921– 31	+ 300	4,400	+ 7.1
	1931– 46	+ 2,000	8,100	+ 20.0
	1946– 60	+ 700	18,700	+ 3.4
	1960– 70	–12,600	23,900	– 52.9
Grenada	1881– 91	+ 100	900	+ 14.9
	1891–1901	– 300	1,300	– 20.3
	1901– 11	– 900	1,200	– 72.7
	1911– 21	– 1,200	1,200	–103.4
	1921– 46	– 1,000	1,200	– 80.0
	1946– 60	– 1,000	2,300	– 44.7
	1960– 70	– 1,600	2,400	– 69.5
Guyana	1881– 91	+ 2,200	– 400	+ 528.4
	1891–1911	+ 1,100	– 100	...
	1911– 21	– 200	...	–674.6
	1921– 31	– 700	1,700	– 41.2
	1931– 46	– 300	4,200	– 8.1
	1946– 60	– 600	13,400	– 4.3
	1960– 70	– 3,600	19,400	– 18.5

(1) The Annual Net Migration is taken as the balancing figure in the equation: Closing population = opening population plus natural increase plus/minus net migration.

The figure of net migration therefore includes any error due to incompleteness in census counts or vital registration.

*Trinidad only.

TABLE 2E: ESTIMATED GROSS AND NET INTER-CENSAL MIGRATION, 1931–1970

Inter-censal period	Net migration[1]	Immigrants	Emigrants
1931–46	+ 24,200	32,700	8,500
1946–60	+ 9,600	32,900	23,300
1960–70 (a)	–126,500	13,400	139,900 (a)
1960–70 (b)	– 46,300	13,400	59,700 (b)

[1]The 1931–1946 estimated net migration is derived by using the census pouplations of 1931 and 1946 unadjusted for under-enumeration of children 0–4 years old as this adjustment was not done for 1931.

The 1946–1960 figures are based on census populations of 1946 and 1960, both adjusted for the under-enumeration of children 0–4 years old.

The first set of figures for 1960–1970, marked (a), are derived from unadjusted census populations for 1960 and 1970. The second set, marked (b), are derived from the 1960 census and the *expected* 1970 Census population.

In the case of Trinidad and Tobago, the net figures might mask significant movements of persons out of the country at the same time as there was heavy indentured immigration and/or free immigration from neighbouring West Indian islands. As is shown in Table 2D, apart from the small loss in the decade 1911–1921, there was a net gain through migration into Trinidad and Tobago in every inter-censal period from 1881 up to 1960. On the other hand, all of the other Commonwealth Caribbean countries have sustained net migration losses since 1880, except Guyana, which has had migration losses consistently since 1911.

The period 1946–1960 is one of especial interest for this is a period in which there was appreciable emigration from the Commonwealth Caribbean to the United Kingdom from the early 1950's, until this movement was halted by the U.K. Commonwealth Immigration Act of 1962. (See, for example, Roberts and Mills – 8). However Trinidad and Tobago had a net gain through migration during this period. Information collected from persons born outside of the country on the length of residence in Trinidad and Tobago at the censuses of 1946 and 1960 permit a rough estimation to be made of gross movement. In Table 2E this information is used to obtain an estimate of the number of persons enumerated at each census who immigrated into the country during the preceding inter-censal period; the difference between this figure and the net migration gives an estimate of the number of persons resident in the country at the preceding census who left during the inter-censal period.

This shows an emigration from Trinidad and Tobago, in the period 1946–60 of 23,300 as compared with 8,500 in the preceding period. The emigration in the period 1946–60 can be compared with the net emigration from Barbados and Jamaica since immigration into these islands is probably negligible. In the same period, emigration from Barbados was 19,300 and from Jamaica 189,000. (Table 2D)

TABLE 2F: NET EXTERNAL MIGRATION DURING THE PERIOD 1965–1969 BY AGE AND SEX

Age	Numbers			Proportions		
	Both sexes	Male	Female	Both sexes	Male	Female
0– 4	– 460	– 190	– 270	1.15	1.38	1.02
5– 9 ...	– 2,250	– 840	– 1,410	5.58	6.11	5.30
10–14 ...	– 2,290	– 980	– 1,310	5.68	7.13	4.93
15–19 ...	– 7,510	– 3,090	– 4,420	18.62	22.49	16.62
20–24 ...	–15,460	– 6,660	– 8,800	38.33	48.47	33.10
25–29 ...	– 7,400	– 3,050	– 4,350	18.35	22.20	16.36
30–34 ...	– 4,750	– 2,160	– 2,590	11.78	15.72	9.74
35–39 ...	+ 430	– 2,660	– 2,230	(1.07)	(19.36)	8.39
40–44 ...	–	+ 610	– 610	–	(4.44)	2.29
45–49 ...	– 1,210	– 270	– 940	3.00	1.97	3.54
50–54 ...	– 50	+ 190	– 240	.12	(1.38)	.90
55–59 ...	+ 1,280	+ 870	+ 410	(3.17)	(6.33)	(1.54)
60–64 ...	–	+ 250	– 250	–	(1.82)	.94
65–69 ...	– 780	– 870	+ 90	1.93	6.33	.34
70–74 ...	+ 40	– 360	+ 400	(.10)	2.62	(1.50)
75–79 ...	+ 110	+ 240	– 130	(.27)	(1.75)	.49
80+ ...	– 30	– 90	+ 60	.07	.66	.23
Total ...	–40,330	–13,740	–26,590	100.00	100.00	100.00

Emigration in the 1960's

Despite the very large difference for the inter-censal period 1960–1970 between the reported net migration and the net migration as estimated from the provisional 1970 Census total it is clear that this latest inter-censal period differs from all the preceding in that the country has experienced a very significant population loss through net emigration. In the nineteenth century net immigration into Trinidad was as high as

36,000 to 38,000 in the last three decades, while in the present century, net immigration into Trinidad and Tobago was about 25,000 in the first decade. In the decade 1960–1970 the recorded net loss through migration was 43,000, (Central Statistical Office – 1), while the estimated migration loss, assuming that the 1970 census enumeration is correct, was as high as 122,000 persons.

Using the lower "recorded" figures for the time being, it will be seen from Table 2G that there continued to be a net inward movement in to the country until 1963. In 1964, however, there was a net emigration of just over 2,000 and this number has continued to increase steadily and rapidly to 9,000 in 1967 and 1968, then to 15,600 in 1969. For the whole of the year 1970 (of which only the first quarter is included in our inter-censal period), net emigration is recorded as 17,400.

Trinidad and Tobago has, therefore, at last joined the other Commonwealth Caribbean countries in having a net outward movement of persons. Up to the 1960's when there was unprecedented net outward movement of West Indians (especially from Jamaica and Barbados) to the United Kingdom, Trinidad and Tobago continued to be a net receiver of migrants. When the 1962 Commonwealth Immigration Act in the United Kingdom seemed to put a stop to emigration from the Caribbean there was a short period when emigration from the Caribbean was extremely low. Soon after, however, there was increased opportunity for migration to the U.S.A. following that Government's decision in 1965 to abrogate the discriminatory quota system based on national origins which had regulated immigration to the U.S.A. since 1924. The Government of Canada also liberalised restriction on immigration from the Caribbean. There has therefore been a return to large-scale emigration from the Region, and it is in this last stream that Trinidad and Tobago has joined.

What has been particularly noticeable about this net emigration is the very high proportion of women among the net migrants. Of a total recorded net emigration of 41,800 during the five-year period 1965–1969, females comprised 27,100 or 65 per cent, and women of child-bearing age (15–44 years) comprised 22,400 or 83 per cent of female migrants and 54 per cent of the total number of net migrants. If we consider the population of working age (15–64 years) then in the period 1965–1969 there were nearly 34,700 emigrants (both sexes), so that 83 per cent of net migrants were of working age. Of them, as many as 70 per cent were female. (Table 2F). Gross emigration in the decade 1960–1970 is estimated at between 60,000 and 140,000 (Table 2E).

TABLE 2G: COMPONENTS OF GROWTH FOR EACH YEAR 1946–1970
(BOTH SEXES)

Components	1946[1]	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Births	21,770	22,340	23,940	22,930	23,730	23,800	22,920	25,570	29,250	30,220	27,450
Deaths	7,730	7,830	7,300	7,480	7,820	8,000	8,000	7,270	6,810	7,460	7,140
Natural increase	14,040	14,510	16,640	15,450	16,070	15,980	14,920	18,300	22,440	22,760	20,310
Net migration	+1,100	+2,540	− 380	+ 250	+ 840	− 560	−1,110	+ 40	− 270	− 160	+ 430
Total increase	15,140	17,050	16,270	15,680	16,910	15,420	13,810	18,340	22,170	22,600	20,740
	1957	1958	1959	1960[1]	1961	1962	1963	1964	1965	1966	1967
Births	28,850	29,670	30,590	32,860	32,990	34,110	32,900	32,960	31,950	30,080	28,460
Deaths	7,290	7,290	7,480	6,610	7,000	6,470	6,670	6,680	6,730	7,060	6,780
Natural increase	21,560	22,380	23,110	26,250	25,990	27,650	26,230	26,280	25,220	23,020	21,690
Net migration	+ 620	+2,670	+3,450	− 140	+ 390	+2,600	+2,320	−2,120	−3,050	−5,140	−8,960
Total increase	22,190	25,040	26,570	26,110	26,390	30,240	28,550	24,160	22,170	17,880	12,720
	1968	1969	1970[1]								
Births	28,110	25,130	25,150								
Deaths	7,120	7,070	6,950								
Natural increase	20,990	18,060	18,200								
Net migration	−9,060	−15,600	−17,350								
Total increase	11,930	2,460	800								

[1]Note the Components relate to the full calendar year, not to post-census period and pre-census period for 1946, 1960 and 1970 respectively.

Source: (a) G.W. Roberts and Jack Harewood: *"Estimates of Inter-Censal Population by Age and Sex and Revised Vital Rates for British Caribbean Countries, 1946–1960"*, Census Research programme Publication Number 8. University of the West Indies, for years 1946–1959.

(b) Central Statistical Digests for the years 1960–1970.

Natural Increase

Absolute Increase:

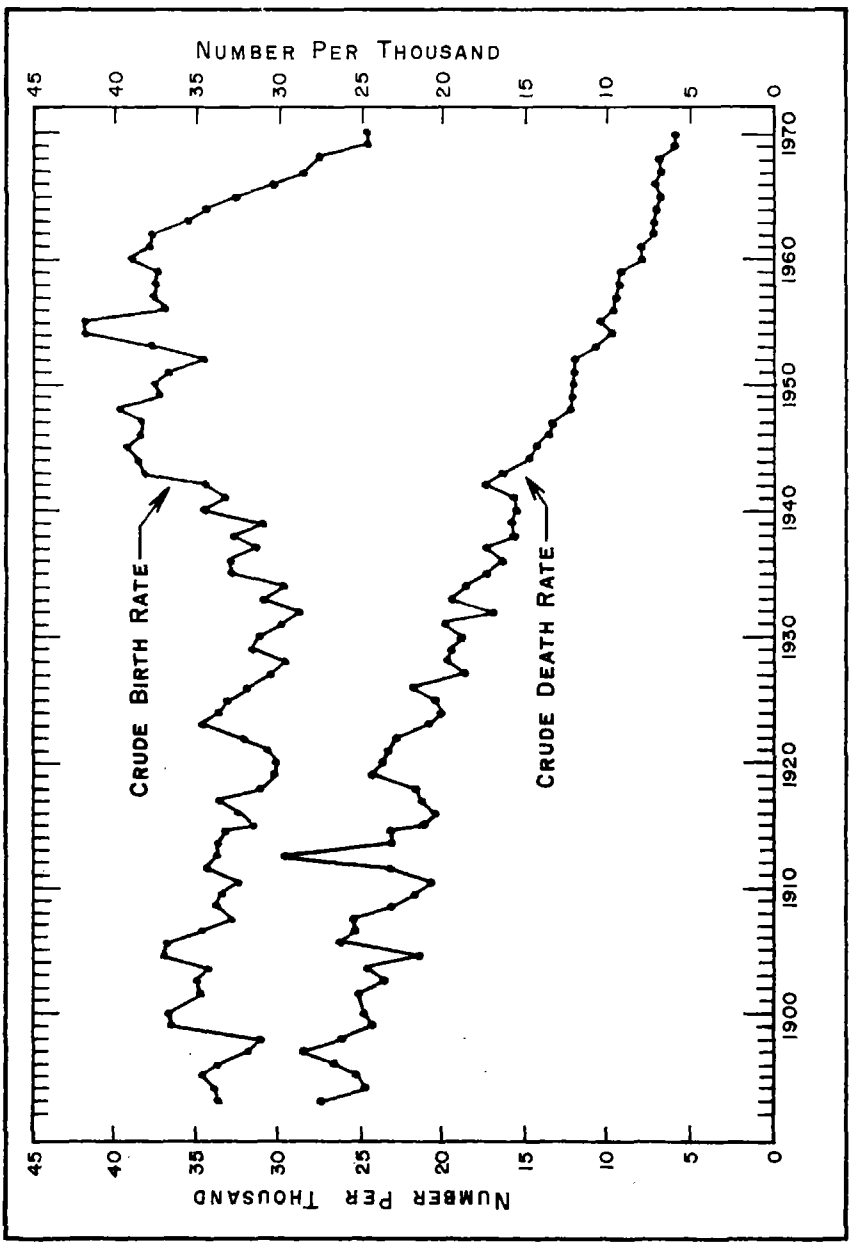
As was shown in Table 2A, one hundred years ago, in the decade 1871–1881, natural increase accounted for only 10 per cent of the total growth of the island of Trinidad. The actual number was 4,700 for the decade, or less than 500 persons per year on average. In the inter-censal periods before 1871, for which detailed figures are not available, the natural increase numbers would have been appreciably smaller, both because of the much lower total increase of population and because of the fact that for most of this earlier period an even smaller proportion of total growth would have been due to natural increase.

In the five decades between 1871 and 1921, the natural increase of the island of Trinidad rose from under 5,000 in 1871–1881 to 30,000 in the decade 1901–1911. The decade 1911–1921 is the only one in which there was a fall as compared with the preceding decade, natural increase in this decade being just under 29,000.

Natural increase in the present century for Trinidad and Tobago is shown in Table 2C. In the first three decades of the century, natural increase averaged between 3,400 and 4,400 persons per year. In the period 1931–1946, however, births exceeded deaths by an average of 8,100 a year, and in the succeeding period, 1946–1960, the population grew through natural increase by 18,700 persons per year on average, i.e. two and a half times as many as for the preceding period and about five times as many as the average 1901–1930 growth. In the last inter-censal period 1960–1970 there was a further rise, the natural increase being nearly 24,000 per year or about 28 per cent higher than in the period 1946–1960. This rise in the most recent inter-censal period results from a record high natural increase of 26,000 – 27,000 for the years 1960 – 1964, the highest being for the year 1962, and thereafter a steady decline to only 18,000 in 1969 and 1970. The natural increase in these last two years was, in fact, lower than in any year since 1953, and even the figure of 21,700 for 1967 exceeded only two of the years in the whole preceding period since 1954. (See Table 2G.)

This considerable rise in the level of natural increase in the present century has been brought about almost entirely by a rise in the annual number of births, while the number of deaths has changed little. As is seen in Table 2C, the average number of deaths per year varied between 7,600 and 8,300 between 1901 and 1946 and since then has fallen very slightly to just under 7,000 in the last inter-censal period. On the other

DIAGRAM 2.1 CRUDE BIRTH RATES AND CRUDE DEATH RATES, 1881—1970



hand, the average annual number of births was around 11,000 to 12,000 during the first three decades, but had reached more than double this figure in the period 1946 – 1960 (over 26,000) and climbed still higher to over 31,000 in the last period.

Rates of Natural Increase:

Expressed as annual average rates per thousand population (Table 2H), natural increase was about 12 per thousand in the five-year period centred on 1901 and declined to 9 per thousand in 1921 before returning to nearly 12 per thousand in 1931. Thereafter, however, the natural increase rate rose to 26 per thousand in the period centred on 1946 and 30 per thousand in the period centred on 1960. Since then there has been a fall and the rate in the three-year period centred on 1970 was between 18 and 20 per thousand.[2]

TABLE 2H: CRUDE BIRTH RATES, CRUDE DEATH RATES AND CRUDE RATES OF NATURAL INCREASE: ANNUAL AVERAGES FOR FIVE – YEAR PERIODS

Five-year period centered on	Crude birth rates	Crude death rates	Crude rates of natural increase	Annual rate of change (%) in: Birth rate	Death rate	Rate of natural increase
1901	37.27	24.98	12.29			
1911	34.71	24.04	10.67	– 0.7	– 0.4	– 1.4
1921	32.73	23.93	8.80	– 0.6	– 0.1	– 1.9
1931	30.53	18.97	11.56	– 0.7	– 2.1	+ 1.6
1946	39.28	13.69	25.59	+ 1.9	– 1.9	+ 5.4
1960	38.38	8.32	30.06	– 0.2	– 2.8	+ 1.2
*1970 (a)	27.35	7.54	19.81	– 3.4	– 1.0	– 4.1
(b)	24.80	6.84	17.96	– 4.5	– 1.9	– 5.0

*Three-year interval 1969–1971.

DEATHS

Crude Death Rates

The figures of the average number of deaths per year quoted above, mask the considerable improvements in mortality which have occurred in Trinidad and Tobago during the past half-century, since they take no account of the fact that the total population has increased considerably

[2]See footnote 1 of Chapter 1 on page 11.

in the period. Allowance for this increasing total population is made when we use the crude death rates per thousand population, as is done in Table 2H.

In the last two decades of the 19th century (not shown in Table 2H), the crude death rate fluctuated between 25 and 30 per thousand. In the present century, the rate declined very slowly up to 1921, but between 1921 and 1960 there was a dramatic decline from 24 per thousand for the five years centred on 1921 to slightly over 8 per thousand in the period 1958–1962. There was a further decline to around 7 per thousand for the period 1969–1971. While the rate of decline was less than one-half per cent in the first two decades of the present century, since 1921 the rate of decline has been about 2 per cent per annum in each inter-censal period except for 1946–1960 when it was nearly 3 per cent. The decline was, however, at a lower rate in the decade 1960–1970 than in the earlier census period; indeed, if the census count population is used, the crude death rate declined in 1960–1970 by only 1 per cent per annum.

But it is the speed with which the decline took place in the period 1921–1960 that is the most striking feature of the trend in the death rates this century. Whereas the crude death rate of England and Wales took a century to fall from an average of 23.4 per thousand in 1831–1840 to 21.1 in 1921–1930, in Trinidad and Tobago, a similar decline, starting much later, took only 30 years, falling from 23.3 in the period 1916–1920 to 12.1 in the period 1946–1960. Similar rapid declines in mortality rates have been observed in other Caribbean countries as well as in developing countries elsewhere in the world.

Although there has been a remarkable decline in mortality between the two World Wars in the Caribbean, it has been pointed out that this was not the outcome of any revolutionary steps taken at that time, but represented the cumulative effects of many measures, some initiated several decades earlier. (Roberts – 7.) This is undoubtedly as true for Trinidad and Tobago as for the remainder of the Region. Thus, because of the high rates of mortality and morbidity among indentured workers, towards the middle of the nineteenth century all estates with indentured workers were required to maintain properly equipped and serviced estate hospitals. (Laurence – 6.) In the late nineteenth and early twentieth centuries, there were a number of measures: (a) to improve public health and provide medical facilities, including the setting up of district clinics, dispensaries and public health offices; (b) to improve sanitation and drainage; and (c) to control specific important diseases including malaria, hookworm, tuberculosis and diarrhoea.

Causes of Death

While the mortality improvement during the two World Wars has been related to generally improving conditions, in the post World War II period, when mortality decline has continued and even intensified, the improvement is more directly associated with the control of a few important diseases. The virtual eradication of malaria through the DDT campaign starting towards the end of the War is of particular importance. However, there have been astonishing successes in the control of a number of other degenerative diseases as well, due to improved medication in these other areas, as well as improved medical and para-medical health services and the continued improvement in the sanitation, health and general conditions.

In comparing deaths from selected causes for the periods 1944–1948 and 1955–1959, Harewood (2) drew attention to the virtual disappearance of malaria as a major cause of death, the annual number of deaths from this disease dropping from over 160 in the earlier period to 7 or 8 per year by 1955–1959. Deaths from tuberculosis also registered a considerable decline, the rate per 100,000 of the population falling from 94 for both males and females to 26 and 19 respectively. Noticeable improvements were also registered in this interval with respect to pneumonia, bronchitis and gastritis.

On the other hand the number of deaths from malignant neoplasms doubled and the death rate from this cause rose from 33 to 52 for males and from 65 to 77 for females. There were increases too in the number of deaths from diabetes melitus, while deaths from birth injuries increased considerably and the rate per 100,000 live births nearly doubled.

When the stationary population was used to overcome the distortions likely to exist in the age structures in the actual populations, the declines in death rates from the first group of diseases are generally confirmed. However the increases in the death rates from the second group of diseases were found to be even larger than was indicated from the crude figures. (See Table 2J (i))

In a follow-up comparison of the period 1955–1959 with 1963–1965, Harewood and Heath (1967) compared more specifically the trends in the infectious and degenerative diseases as causes of death. Using malaria, typhoid fever, dysentery, tuberculosis and pneumonia as representative of the group of infectious diseases, they found that deaths from malaria were nil, typhoid fever appeared to be well on the way to being completely controlled, while the number of deaths from dysentery

TABLE 2J(i): ANALYSIS OF MORTALITY FROM VARIOUS DISEASES

Code	Cause of Death	Actual population				Stationary population				% Decrease (–) or increase (+) in death rates
		Average No. of deaths		Death rate per 100,000 population		% Total deaths		Death rate per 100,000 population		
		1944 – 1948	1955 – 1959	1944 – 1948	1955 – 1959	1947 – 1948[a]	1955 – 1959	1947 – 1948[a]	1955 – 1959	1944–48 to 1955–59
		Males								
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
B 16	Malaria	163	8	58.29	2.08	2.10	0.22	39.56	3.71	– 80.6
B 1&2	Tuberculosis	262	98	93.69	25.53	7.25	2.46	136.84	41.07	– 70.0
B 32	Bronchitis	168	133	60.07	34.65	3.75	3.82	70.82	63.74	– 10.0
B 31	Pneumonia	240	210	85.82	54.71	4.27	3.34	80.67	55.83	– 30.8
B 36	Gastritis etc. (i)	222	289	79.38	75.29	3.44	3.28	64.99	54.79	– 15.7
**B 42	Birth injuries etc.* (ii)	35	92	318.18	622.80	3.64	8.90	320.90*	602.71*	+ 87.8
B 20	Diabetes melitus	38	59	13.59	15.37	1.16	1.99	21.91	33.18	+ 51.4
B 18	Malignant neoplasms etc. (iii)	94	199	33.61	51.84	3.44	6.91	64.87	115.46	+ 78.0
		Females								
B 16	Malaria	165	7	59.28	1.84	2.31	0.19	41.14	3.05	– 92.6
B 1&2	Tuberculosis	261	71	93.78	18.63	6.02	1.66	107.37	26.15	– 75.6
B 32	Bronchitis	133	100	47.79	26.24	2.70	3.06	48.19	48.24	+ 0.1
B 31	Pneumonia	196	191	70.42	50.12	3.23	3.25	57.63	51.16	– 11.2
B 36	Gastritis etc. (i)	188	253	67.55	66.40	3.12	3.22	55.72	50.81	– 8.8
**B 42	Birth injuries etc* (ii)	31	73	287.92	518.61	3.86	9.06	284.33	479.27	+ 68.6
B 20	Diabetes melitus	50	91	17.96	23.88	1.77	3.71	31.57	58.55	+ 85.5
B 18	Malignant neoplasms etc. (iii)	182	293	65.39	76.89	6.45	10.70	115.17	168.92	+ 46.7

*Per 100,000 live births. **Corrected figures.

(i) Gastritis, Duodenitis, Enteritis and Colitis, except Diarrhoea of the newborn.

(ii) Birth injuries, post-natal Asphyxia and Atelectasis.

(iii) Malignant Neoplasms, including Neoplasms of Lymphatic and Haematopoletic tissues.

(a) Based on average 1947–1948 deaths only, as deaths by cause of death and age not available for earlier years. 1945–1947 Life table used.

and tuberculosis had fallen to less than one half of the earlier period. There were very appreciable declines in the death rates per 100,000 population for each of these diseases, but pneumonia, which had the highest death rate of the group, showed the smallest rate of decline.

The causes of death selected to represent the degenerative diseases were: diabetes melitus, malignant neoplasms etc., vascular lesions affecting the central nervous system; chronic rheumatic heart disease; arterio-sclerotic and other degenerative heart diseases; other diseases of the heart; and hypertension with heart disease. In this group, the number of deaths in 1963–1965 was, in almost every case, higher than in 1955–1959, though the increase was negligible in the case of other diseases of the heart for both males and females, while for arterio-sclerotic and other degenerative heart diseases the number of male deaths increased by 4 per cent and the number of female deaths declined by 6 per cent.

When allowance is made for the larger population at the later period, the death rates among the degenerative diseases have, by comparison with the infectious diseases, undergone small changes. Although the number of deaths from these degenerative diseases increased in almost every case, there were declines in the death rate of about 20 per cent or less from diabetes melitus, arterio-sclerotic and other degenerative heart disease and other diseases of the heart, for both males and females.

The general picture, then, even in the relatively short interval and using the very few selected causes of death, is that there is a steady improvement in the mortality condition as far as the infectious diseases are concerned, while among the degenerative diseases there is no such general donward trend in mortality and indeed, in some cases, the death rates have been increasing.

When the stationary population is used with the degenerative diseases, the above trend is emphasised as there is an increase in the death rate for every one of the degenerative diseases. (Table 2J (ii)).

Life Table Functions:

The improvements in mortality discussed above are also very well demonstrated by the various life table functions as is shown below:

(i) Expectation of Life: Table 2K shows the "expectation of life at birth" or the "average length of life" for the census years 1901–1970.[3] From the table it is seen that the average length of life of females

[3] 1970 (a) from a preliminary life table prepared by the Census Research Programme under Professor G.W. Roberts at the University of the West Indies, Mona, Jamaica, using the 1970 census population.

1970 (b) from a life table published in the *Population Abstract 1960–1970* by the Central Statistical Office, Trinidad and Tobago using the "expected" mid-1970 population.

TABLE 2J(ii): ANALYSIS OF MORTALITY FROM VARIOUS DISEASES

Code	Cause of death	Actual population				Stationary population			
		Average number of deaths		Death rate per 100,000 population		% Total deaths		Death rate per 100,000 population	
		1955–1959	1963–1965	1955–1959	1963–1965	1955–1959	1963–1965	1955–1959	1963–1965
		Males							
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	GROUP I								
B 16	Malaria	8	—	2.08	—	0.22	—	3.71	—
B 4	Typhoid Fever	12	1	3.12	0.21	0.22	0.04	3.71	0.68
B 6	Dysentery	25	5	6.50	1.06	0.55	0.16	9.27	2.50
B 1&2	Tuberculosis	98	42	25.53	8.87	2.46	1.27	41.07	20.40
B 31	Pneumonia	210	209	54.71	44.14	3.34	4.23	55.83	68.13
	GROUP II								
B 25	Chronic Rheumatic Heart Disease	15	18	3.90	3.80	0.38	0.51	6.54	8.20
B 20	Diabetes Mellitus	59	60	15.37	12.67	1.99	2.07	33.18	33.30
B 27	Other Diseases of the Heart	106	107	27.55	22.60	3.61	3.99	61.16	64.16
B 28	Hypertension with Heart Disease	114	143	29.63	30.20	4.01	5.38	67.83	86.63
B 18	Malignant Neoplasms, etc. (i)	199	250	51.84	52.79	6.91	8.64	115.46	139.11
B 22	Vascular Lesions affecting the Central Nervous System	315	452	81.88	95.45	10.66	16.51	180.45	265.61
B 26	Arteriosclerotic and Degenerative Heart Disease	435	454	113.07	95.88	14.62	16.32	247.48	262.52
	Group III								
B 42	Birth Injuries, etc.* (ii)	92	134	622.80	805.19	8.90	19.02	602.71*	1,014.53*

TABLE 2J(ii): ANALYSIS OF MORTALITY FROM VARIOUS DISEASES (Continued)

Code	Cause of death	Actual population				Stationary population			
		Actual number of deaths		Death rate per 100,000 population		% Total deaths		Death rate per 100,000 population	
		1955–1959	1963–1965	1955–1959	1963–1965	1955–1959	1963–1965	1955–1959	1963–1965
		Females							
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	GROUP I								
B 16	Malaria	7	—	1.84	—	0.19	—	3.05	—
B 4	Typhoid Fever	9	1	2.36	0.21	0.13	0.03	2.02	0.43
B 6	Dysentery	21	5	5.50	1.05	0.45	0.10	7.12	1.54
B 1 & 2	Tuberculosis	71	22	18.63	4.62	1.66	0.68	26.15	10.33
B 31	Pneumonia	191	182	50.12	3.22	3.25	4.33	51.16	65.34
	GROUP II								
B 25	Chronic Rheumatic Heart Disease ...	15	23	3.93	4.83	0.37	0.58	5.85	8.76
B 27	Other Diseases of the Heart	91	96	23.28	20.16	3.40	3.69	54.27	55.64
B 20	Diabetes Mellitus	91	100	23.88	21.00	3.71	3.70	58.55	55.84
B 28	Hypertension with Heart Disease	110	154	28.79	32.34	4.35	6.65	69.34	100.20
B 18	Malignant Neoplasms, etc. (i)	293	320	76.89	67.20	10.70	11.47	168.92	172.97
B 26	Arteriosclerotic and Degenerative Heart Disease	364	341	95.28	71.61	13.11	14.59	208.91	219.91
B 22	Vascular Lesions affecting the Central Nervous System	318	438	83.24	91.98	12.07	18.20	192.38	274.44
	GROUP III								
B 42	Birth Injuries etc. (ii)	73	92	518.61	576.44	9.06	17.09	479.27*	747.34

*Per 100,000 Live Births.

(i) Malignant Neoplasms, including Neoplasms of Lymphatic and Haematopoletic Tissues.

(ii) Birth Injuries, Post-Natal Asphyxia and Atelectasis.

has remained consistently higher than that of males, a fairly world-wide phenomenon. The differential between the sexes increased from about 2 years in 1901 to just over 4 years in 1960 and 1970. But much more remarkable has been the considerable increase in the average length of life for each sex, especially since 1921. First, it should be noted that there was a slight deterioration in the mortality situation between 1911 and 1921, a fact not made clear from the crude death rates above. Since 1921, however, the improvement has been continual. The male expectation of life rose from under 38 years in 1921 to over 62 years in 1960,

TABLE 2K: EXPECTATION OF LIFE AT BIRTH (AVERAGE LENGTH OF LIFE)

Period	Males			Females		
	Average length of life	Annual increase		Average length of life	Annual increase	
		Years	Percent		Years	Percent
	(1)	(2)	(3)	(4)	(5)	(6)
1901	36.73	—	—	38.75	—	—
1911	38.99	.22	0.61	40.95	.22	0.57
1921	37.59	—.14	—0.36	40.11	—.08	—0.19
1931	44.51	.69	1.84	46.95	.68	1.70
1946	52.98	.56	1.26	56.03	.60	1.28
1960	62.15	.65	1.24	66.33	.74	1.32
1970(a)	63.71	.16	0.25	67.81	.15	0.22
(b)	64.08	.19	0.30	68.11	.17	0.25

an increase of nearly 25 years or 65 per cent. The average length of life of females also increased by 65 per cent from 40 years in 1921 to over 66 years in 1960. The provisional life tables indicate a further increase of 1.5 to 2 years in the expectation of life of each sex in the decade 1960–1970.

The decade 1921–1931 was the inter-censal period in which there was the largest relative increase in the expectation of life. In that period, the male expectation increased by 1.8 per cent and the female by 1.7 per cent per annum. In subsequent periods up to 1960 the male expectation has increased by 1.2 per cent and the female by 1.3 per cent per year. In the period 1960–1970, however, the increase was only about 0.2 per cent. In terms of the actual length of time added to the life expectancy, an annual average of 0.69 years was added to the male average in the period 1921–1931, and slightly less (0.65) in the period 1946–1960. For

females, the largest addition was in the period 1946–1960 with an average annual increase of 0.74 years. The increase in 1921–1931 was the same as for males (0.69 years).

(ii) Survivorship: The number of persons from a cohort of 100,000 births who would survive (1_x) to age of entry into school (age 5 years), to age of entry into the labour force, and the beginning of the child-bearing age in the case of women, (age 15 years), and to the usual age of retirement from economic activity (age 65 years), also gives a good indication of changes in the level of mortality. These are shown for the years 1921 onwards in Table 2L. For males, the number expected to survive to 5 years of age was 93,600 in 1960 as against 76,500 in 1921. For females, about 94,700 would survive in 1960 as compared with 77,600 in 1921. There has, therefore, been an increase of 22 per cent in survivorship to age of entry into school, between 1921 and 1960, in the case of both males and females. Between 1960 and 1970 there has been a further increase of about 1.7–2.0 per cent for males and about 1.2–1.6 per cent for females.

Under the 1921 conditions of mortality, of 100,000 male births 72,400 could be expected to attain the age of entry into the labour force; by 1960 the number had increased to 92,800 (an increase of 28 per cent), and by 1970 around 94,400–94,800. There is an increase of similar magnitude for females.

TABLE 2L: SURVIVORSHIP (1_x)

Age	Males (1_x)				Females (1_x)			
	1921	1931	1946	1960	1921	1931	1946	1960
5 ...	76,488	81,337	88,847	93,596	77,631	83,082	90,359	94,739
15 ...	72,387	78,728	87,170	92,836	73,689	80,520	88,689	94,246
65 ...	17,952	27,195	39,346	56,544	24,855	33,459	46,310	64,694

	Males		Females	
	1970a*	1970b*	1970a*	1970b*
5 ...	95,183	95,470	95,902	96,228
15 ...	94,442	94,753	95,424	95,742
65 ...	59,535	63,405	67,180	69,875

*See Footnote to Table 2H.

The number of old-age dependants (attaining age 65 years) under 1921 conditions of mortality would have been 18,000 in the case of males and 24,800 in the case of females. By 1960 these figures had jumped to 56,500 for males and 64,700 for females. Here the improvement was truly outstanding, the number of male survivors being three times as many as in 1921 and the number of female survivors two and a half times as many. By 1970 the figures are estimated to be around 60,000–63,000 for males, and 67,000–70,000 for females. It is also noteworthy that while the number of female survivors to old age continues to be appreciably higher than the number of male survivors, the differential has been greatly reduced. In 1921 the number of female survivors was 38 per cent more than male; by 1960 this had reduced to 14 per cent, and by 1970, about 10–12 per cent.

(iii) Mortality by Age: Infant mortality is a good first indicator of the improvement in mortality conditions in a developing country. The infant mortality rate, calculated as the number of deaths of infants under one year old per thousand live births, is shown in Table 2M for the five years centered on the censuses held this century.

TABLE 2M: INFANT MORTALITY RATES: ANNUAL AVERAGES FOR FIVE-YEAR PERIODS

Five-year period centered on	Infant mortality rate	Annual rate of decline
1911	154.52	
1921	142.90	0.8
1931	125.28	1.3
1946	79.87	3.0
1960	50.26	3.4
1970*	34.83	3.7

*1970 rate based on the four-year period 1968–1971. 1972 figures not at present available.

The figures show a decline throughout the period, but the rate of decline has accelerated appreciably since the Second World War. Despite the fact that the infant mortality rate in 1960 was only one-third of what it was in 1911, the rate of decline in the last inter-censal decade 1960–1970 was nevertheless the largest recorded.

The decline in the level of infant mortality is also well demonstrated by the life table death rates for children under 1 year of age (q_o) in Table 2N. (See also Diagrams 2.2 and 2.3). The only period in which there was

DIAGRAM 2.2. LIFE TABLE DEATH RATES — MALES

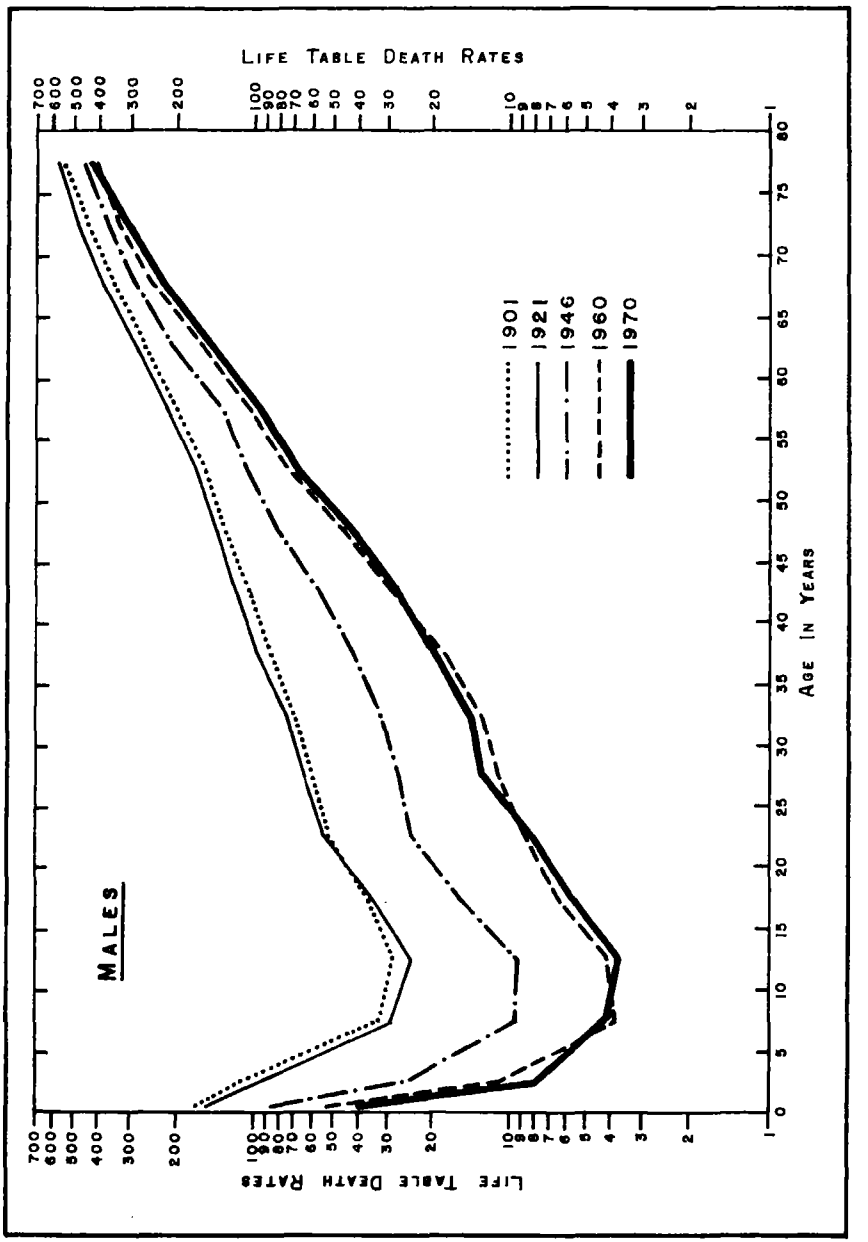


DIAGRAM 2.3. LIFE TABLE DEATH RATES — FEMALES

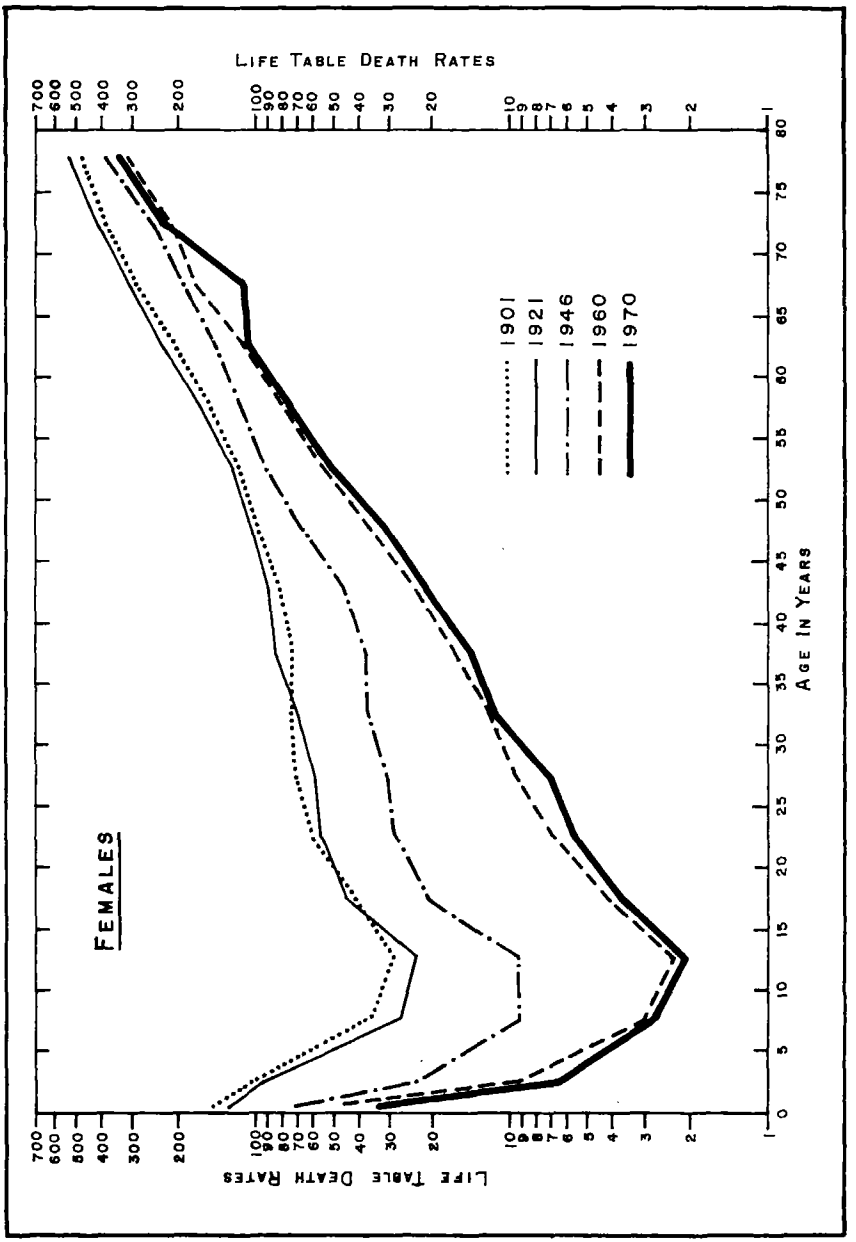


TABLE 2N: LIFE-TABLE DEATH RATES (1000 nqx)

Age interval	Males							Females						
	1901	1911	1921	1931	1946	1960	1970*	1901	1911	1921	1931	1946	1960	1970*
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
0– 1 ...	170.73	153.58	157.70	143.57	88.16	53.34	40.33	155.03	143.01	144.20	120.22	73.66	43.73	34.61
1– 2 ...	62.37	53.62	55.45	28.80	14.46	6.00	4.47	58.31	51.00	56.92	30.44	15.08	5.21	3.77
2– 5 ...	55.39	42.96	38.60	22.11	11.33	5.00	3.73	49.70	42.35	38.14	25.89	9.62	4.10	2.84
5–10 ...	33.37	25.79	29.74	17.56	9.75	3.94	4.12	36.86	27.05	27.35	15.28	9.25	2.85	2.81
10–15 ...	29.49	25.79	24.62	14.78	9.22	4.19	3.67	29.54	26.13	24.08	15.70	9.32	2.36	2.17
15–20 ...	37.29	38.11	35.89	23.61	16.16	6.43	5.85	42.11	43.94	43.98	30.07	20.08	4.24	3.71
20–25 ...	51.49	49.15	53.96	35.27	23.59	8.66	8.30	61.67	60.64	56.09	39.18	28.70	7.14	5.69
25–30 ...	59.93	57.09	63.23	39.31	27.20	11.10	13.13	71.44	65.35	60.12	44.50	30.60	9.98	7.09
30–35 ...	68.54	69.00	73.72	46.00	32.49	12.73	14.56	74.05	65.25	70.83	49.59	36.60	12.55	12.51
35–40 ...	85.17	85.17	97.71	63.38	42.14	17.80	18.06	74.75	72.79	85.58	56.16	37.99	16.15	14.56
40–45 ...	106.54	98.62	119.92	84.25	57.28	28.04	27.10	80.59	78.70	89.03	68.97	44.80	23.80	21.42
45–50 ...	133.38	122.50	142.71	105.52	80.47	45.26	43.75	99.71	89.67	101.38	86.68	64.75	36.88	31.69
50–55 ...	162.08	154.48	171.92	138.64	111.84	72.53	68.97	119.74	107.66	125.15	109.90	90.15	55.91	52.52
55–60 ...	203.14	133.84	218.77	187.00	147.35	105.14	93.79	150.36	145.57	161.27	144.29	114.14	78.28	75.67
60–65 ...	262.64	258.85	288.45	255.26	206.06	162.71	146.96	205.37	197.40	220.76	197.20	151.96	117.65	113.69
65–70 ...	351.87	358.81	389.50	348.30	287.09	227.03	277.03	291.55	277.82	304.46	268.48	190.11	173.82	116.41
70–75 ...	456.51	471.76	492.80	450.83	372.44	333.98	322.89	391.59	385.87	401.28	358.15	256.47	214.17	227.83
75–80 ...	543.33	563.93	581.69	544.64	455.38	416.27	432.41	477.75	499.59	517.00	467.54	376.23	317.25	327.80
80–85 ...	646.56	673.90	649.26	649.82	570.88	525.75	548.25	582.85	588.69	603.58	583.14	527.28	469.96	454.83

*From Life Tables prepared by the Census Research Programme using the 1970 Census Population

TABLE 2N: LIFE-TABLE DEATH RATES ($1000\ {}_nq_x$) Continued

Age interval	Rates of Change (Percentage) in ${}_nq_x$ Values											
	Males						Females					
	1901–1911	1911–1921	1921–1931	1931–1946	1946–1960	1960–1970	1901–1911	1911–1921	1921–1931	1931–1946	1946–1960	1960–1970
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
0– 1 ...	– 1.05	+ 0.20	– 0.94	– 3.20	– 3.52	– 2.76	– 0.83	+ 0.10	– 1.81	– 3.21	– 3.64	+ 2.31
1– 2 ...	– 1.51	+ 0.60	– 6.34	– 4.48	– 5.58	+ 2.90	– 1.32	+ 1.10	– 6.07	– 4.57	– 6.94	+ 3.18
2– 5 ...	– 2.50	– 1.05	– 5.42	– 4.37	– 5.53	– 2.89	– 1.60	– 1.03	– 3.80	– 6.39	– 5.71	+ 3.61
5–10 ...	– 2.55	– 1.40	– 5.14	– 3.84	– 6.06	– 0.45	– 3.04	+ 0.10	– 5.59	– 3.32	– 7.56	+ 0.14
10–15 ...	– 1.32	– 0.46	– 4.99	– 3.10	– 5.35	– 1.32	– 1.21	– 0.81	– 4.23	– 3.42	– 8.51	+ 0.84
15–20 ...	+ 0.21	– 0.62	– 4.10	– 2.50	– 6.15	+ 0.94	+ 0.40	– 0.00	– 3.73	– 2.66	– 9.30	+ 1.33
20–25 ...	– 0.46	+ 0.90	– 4.17	– 2.64	– 6.61	+ 0.41	– 0.16	– 0.78	– 3.53	– 2.05	– 8.59	+ 2.24
25–30 ...	– 0.49	+ 1.00	– 4.63	– 2.43	– 6.00	– 1.69	– 0.90	– 0.83	– 2.97	– 2.46	– 7.26	+ 3.36
30–35 ...	0.00	+ 0.70	– 4.61	– 2.30	– 6.24	– 1.35	– 1.26	+ 0.80	– 3.60	– 1.94	– 6.99	+ 0.03
35–40 ...	0.00	+ 1.40	– 4.24	– 2.69	– 5.80	– 0.15	– 0.28	+ 1.60	– 4.12	– 2.57	– 5.76	+ 1.03
40–45 ...	– 0.76	+ 2.00	– 3.46	– 2.55	– 4.90	+ 0.34	– 0.23	+ 1.30	– 2.53	– 2.84	– 4.37	+ 1.05
45–50 ...	– 0.85	+ 1.50	– 2.97	– 1.78	– 4.00	+ 0.34	– 1.05	+ 1.30	– 1.55	– 1.91	– 3.92	+ 1.51
50–55 ...	– 0.49	+ 1.00	– 2.14	– 1.42	– 3.04	+ 0.50	– 1.05	+ 1.50	– 1.28	– 1.30	– 3.35	+ 0.62
55–60 ...	– 0.46	+ 1.30	– 1.55	– 1.58	– 2.39	+ 1.14	– 0.32	+ 1.00	– 1.09	– 1.55	– 2.66	+ 0.34
60–65 ...	– 0.14	– 1.10	– 1.21	– 1.42	– 1.68	+ 1.01	– 0.41	+ 1.10	– 1.12	– 1.72	– 1.82	+ 0.34
65–70 ...	+ 0.20	0.00	– 1.09	– 1.28	– 1.11	– 1.21	– 0.49	+ 0.90	– 1.26	– 2.28	– 0.64	+ 3.93
70–75 ...	+ 0.30	+ 0.40	– 0.90	– 1.26	– 0.78	+ 0.34	– 0.14	+ 0.40	– 1.12	– 2.21	– 1.28	– 0.62
75–80 ...	+ 0.30	+ 0.30	– 0.67	– 1.32	– 0.64	– 0.38	+ 0.50	+ 0.30	– 1.00	– 1.44	– 1.21	– 0.33
80–85 ...	+ 0.40	– 0.37	0.00	– 1.69	– 0.59	– 0.42	+ 0.10	+ 0.10	– 0.35	– 0.67	– 0.82	+ 0.33

an increase in the life table death rate for infants was between 1911 and 1921. But in this interval there was also an appreciable worsening of the mortality situation in most age groups, for both males and females, mainly attributed to the great influenza pandemic of 1918. The table and the diagrams demonstrate that since 1921 the improvement in mortality has been consistent and appreciable for most age groups, the improvements being most marked for persons up to about 40 years of age. In the inter-censal period 1931–1946, which includes the period of the Second World War, the rate of decline in mortality was somewhat lower than in either the preceding or following inter-censal periods.

In the most recent period, 1960–1970, the improvement continued for infants under 1 year old, and to a lesser extent for young children 1–5 years of age. There was also a continued improvement in the life table mortality rates for the older ages 55 years and above, in the case of males, and for the older age groups excluding persons 65–75 years old in the case of females. For the intervening age groups, however, covering the span from 5 to 55 years of age, the improvement was well below that of the earlier inter-censal period, and was indeed negligible in many age groups, and in others the mortality rate had increased rather than fallen.

A striking indicator of the considerable improvement in mortality, particularly among the younger age groups, is given by the age at which the life table cohort is reduced by one-quarter and by one-half. (Table 2P.)

The age at which the cohort was reduced by one-quarter was very low at the beginning of the century and had improved only slightly by

TABLE 2P: AGE IN YEARS AT WHICH THE LIFE TABLE COHORT IS REDUCED BY ONE–QUARTER AND BY ONE – HALF

Period	Cohort reduced by one-quarter		Cohort reduced by one-half	
	Males	Females	Males	Females
1900–1902	3.92	6.10	40.07	40.13
1910–1912	9.20	11.96	40.65	40.87
1920–1922	8.27	11.39	40.27	40.65
1930–1932	23.53	25.06	51.57	53.98
1945–1947	40.64	41.35	59.76	62.84
1959–1961	55.33	58.77	67.44	71.54
1969–1971 (a) ...	56.40	60.45	68.55	72.35
(b) ...	58.31	61.99	69.73	72.96

1921. Thereafter, however, there was a dramatic improvement up to 1959–61, this figure rising from under 4 years in 1901 to over 55 years in 1960 in the case of males, with a similar rise for females. The improvement in the decade 1960–1970 was, however, less than in any other inter-censal period except in the interval 1911–1921 when the situation actually deteriorated slightly. The pattern is similar as regards the age by which the life table cohort is reduced by one-half, there being little change up to 1921, a significant improvement in each period from 1921 to 1960, and a much lower level of improvement in the decade 1960–1970. Here, however, the increase has been very much less dramatic (from 40 years in 1901 to 70 years in 1970 in the case of males, and slightly more in the case of females). This, of course, is but another demonstration of the earlier observation that the mortality improvements were particularly large among the younger age-groups.

A Comparison with some other Caribbean Countries

It is interesting and useful to compare the past trend and the level of mortality in Trinidad and Tobago with some of the other Commonwealth Caribbean countries. Table 2Q gives the expectation of life at birth (average length of life) for selected dates since 1911 for: Trinidad and Tobago, Jamaica, Barbados, Guyana and Grenada.

These figures show that prior to 1945–1947, and particularly before 1920–1922, the average length of life of Trinidad and Tobago, and Jamaica was appreciably higher than that of Guyana and Barbados. By 1959–1961, Barbados had caught up with the two larger islands, while Guyana, and Grenada, were only slightly behind. By 1969–1971, however, the average length of life of Trinidad and Tobago had fallen behind that of the other islands in the table, the result of a comparatively modest improvement in the last inter-censal period. But there was evidence of such a relative slowing down for the earlier inter-censal interval was well, for the 1959–1961 life tables show that the average length of life of Trinidad and Tobago had fallen behind that of Barbados and Jamaica after leading them in 1945–1947. This country's expectation of life, however, remained higher than that of Guyana[4] which also had a relatively slow rate of increase in the 1960–1970 interval.[5]

[4]A break-down of deaths by age was not available for the period 1969–1971 for Guyana. These preliminary figures are therefore derived by using the average 1968–69 deaths with the 1970 Census population. It is likely that the average length of life based on deaths for 1969–71 will be slightly higher than these.

[5]See also Appendix.

TABLE 2Q: EXPECTATION OF LIFE AT BIRTH (AVERAGE LENGTH OF LIFE) FOR FIVE COMMONWEALTH CARIBBEAN COUNTRIES 1910–1970

Period	Trinidad and Tobago	Jamaica	British Guiana	Barbados	Grenada
			Males		
1910–1912	38.97	39.04	29.90	28.70	
1920–1922	37.59	35.89	33.50	28.50	
1945–1947	52.98	51.25	49.32	49.17	
1959–1961	62.15	62.65	59.03	62.74	60.14
1969–1971* (a) ...	63.70	66.7	61.6*H*	65.9	64.2
(b) ...	64.08	00.0	00.0	00.0	00.0
			Females		
1910–1912	40.95	41.41	32.40	32.50	
1920–1922	40.11	38.20	35.80	31.90	
1945–1947	56.03	54.58	52.05	52.94	
1959–1961	66.33	66.63	63.01	67.43	65.60
1969–1971* (a) ...	67.80	70.20	65.40*H*	70.90	69.60
(b) ...	68.11				

*Provisional.

H Based on 1968–1969 deaths and 1970 Census Population

For Trinidad and Tobago 1969–1971 (a) and (b) see footnote to Table 2K.

BIRTHS

Because of the appreciable decline in the birth rates and period fertility rates since 1960, it is convenient to discuss the historical changes in fertility up to 1960 first and then discuss changes in the 1960's in a following sub-section. This section on births is therefore so sub-divided.

a. 1910–1970

Crude Birth Rates

The population experience of Western Europe during the past two centuries has appeared to follow a fairly regular pattern which has been designated the "Population Cycle" and "explained" by a "Theory of Demographic Evolution" (or Demographic Transition). According to this theory, and using England and Wales as an example, beginning with high birth and death rates, the population began to grow rapidly, following the scientific and industrial revolutions of the last two hundred years, as

a result of rapidly falling death rates, while birth rates remained constant. Later, birth rates too began to fall rapidly, but the population continued to increase, though less rapidly, as death rates remained below birth rates. In a third stage, birth and death rates levelled off at a considerably lower level than in the pre-industrial period, with a net low and fluctuating rate of population growth.

As shown above, Trinidad and Tobago, like many other developing countries, has also experienced rapid increases in population growth as a result of considerable declines in the death rates. In the case of Trinidad and Tobago the very large decline in the death rate dates from 1921 as has been shown earlier. However, in the first three decades of the present century, that is pre-dating the start of the death-rate decline, the crude birth rates fell modestly but steadily from 37 per thousand in 1901 to 30 per thousand in 1931. Subsequently there was a very large increase in the birth rate, the rate for 1946 (39 per thousand) being the highest on record, and the rate for 1960 only slightly lower. (Table 2G).

Women of Child-bearing age

Changes in the crude birth rate of a population can, in large measure, result from changes in the age-sex structure of the population, or more precisely, from changes in the proportion of the total population who are women of child-bearing age (usually taken as either 15–44 or 15–49 years of age). Table 2R(i) shows, however, that the changes in the birth rates from one census to another are not so related. Thus, women of child-bearing age comprised an increasing proportion of the total population from 1901 to 1931 at the same time as the crude birth rate was in fact falling, and it is precisely while women of child-bearing age were declining as a proportion of the total population in the period 1931–1946, that the crude birth rate was rising.

TABLE 2R(i): (a) WOMEN OF CHILD-BEARING AGE (15–44 YEARS) AS A PROPORTION OF THE TOTAL POPULATION, 1901–1970 AND (b) CRUDE BIRTH RATES: ANNUAL AVERAGES FOR FIVE-YEAR PERIODS

	1901	1911	1921	1931	1946	1960	1970	(1970)
Women of child bearing age % ...	24.0	24.1	24.5	24.9	22.9	20.5	20.4	(20.8)
Crude birth rates	37.27	34.71	32.73	30.53	39.28	38.38	24.80	(27.35)

TABLE 2R(ii): WOMEN OF CHILD – BEARING AGE (15–44 YEARS) BY FIVE – YEAR AGE GROUPS, 1901–1970 (PROPORTIONS)

Age (years)	1901	1911	1921	1931	1946	1960	1970	(1970)
15–19	18.9	18.6	20.1	21.0	20.0	24.3	26.4	(27.6)
20–24	21.8	22.0	21.0	21.6	20.3	19.4	19.9	(21.5)
25–29	20.1	19.8	18.1	17.9	18.0	16.0	16.8	(15.5)
30–34	15.4	15.4	15.2	14.9	15.9	14.6	14.0	(13.0)
35–39	13.1	13.4	13.8	13.2	14.4	13.9	12.2	(11.7)
40–44	10.8	10.8	11.7	11.5	11.4	11.8	10.6	(10.7)
Total 15–44 ...	100	100	100	100	100	100	100	(100)

Nor have there been shifts within the group of women of child-bearing age to the ages of highest fertility which might have explained this phenomenon. The period of highest fertility, as shown in Table 2S and Diagram 2.4, is between 20 and 34 years of age. But, as can be seen from Table 2R(i), the crude birth rate in 1946 and 1960 was very much higher than in 1931 though the proportion of women in the age groups of highest fertility was declining appreciably in the period 1931–1960.

Gross and Net Reproduction Rates

The foregoing strongly suggests that it is an increase in the average annual number of births per woman of child-bearing age, rather than a more favourable age/sex structure of the total population, that accounts for the considerable increase in the birth rates in the 1940's. The Gross Reproduction Rate (GRR) which is not affected by the age/sex structure of the population, is a useful indicator of this. Table 2T shows the GRR for the three-year period centred on 1970 and 1960 and indirect GRR's for similar periods centred on the earlier census years in the present century.[6] Starting at 2.02 at the beginning of the century, the GRR dropped steadily and was 1.67 in 1931. There was, however, a considerable increase thereafter to 2.66 in 1960. It is now clear that the slight decline in the crude birth rate between 1946 and 1960 (Table 2R (i)) reflects the decline in the relative size of the group of women of child-bearing age, and more particularly those 20–34 years of age, and not a decline in the average annual number of births per woman.

[6]The GRR's for the earlier years had to be derived indirectly from the 1960 GRR as the age-specific fertility rates for the earlier periods are not available.

DIAGRAM 2.4 AGE SPECIFIC FERTILITY RATES, 1959—1961, 1969—1971(a), 1969—1971(b)

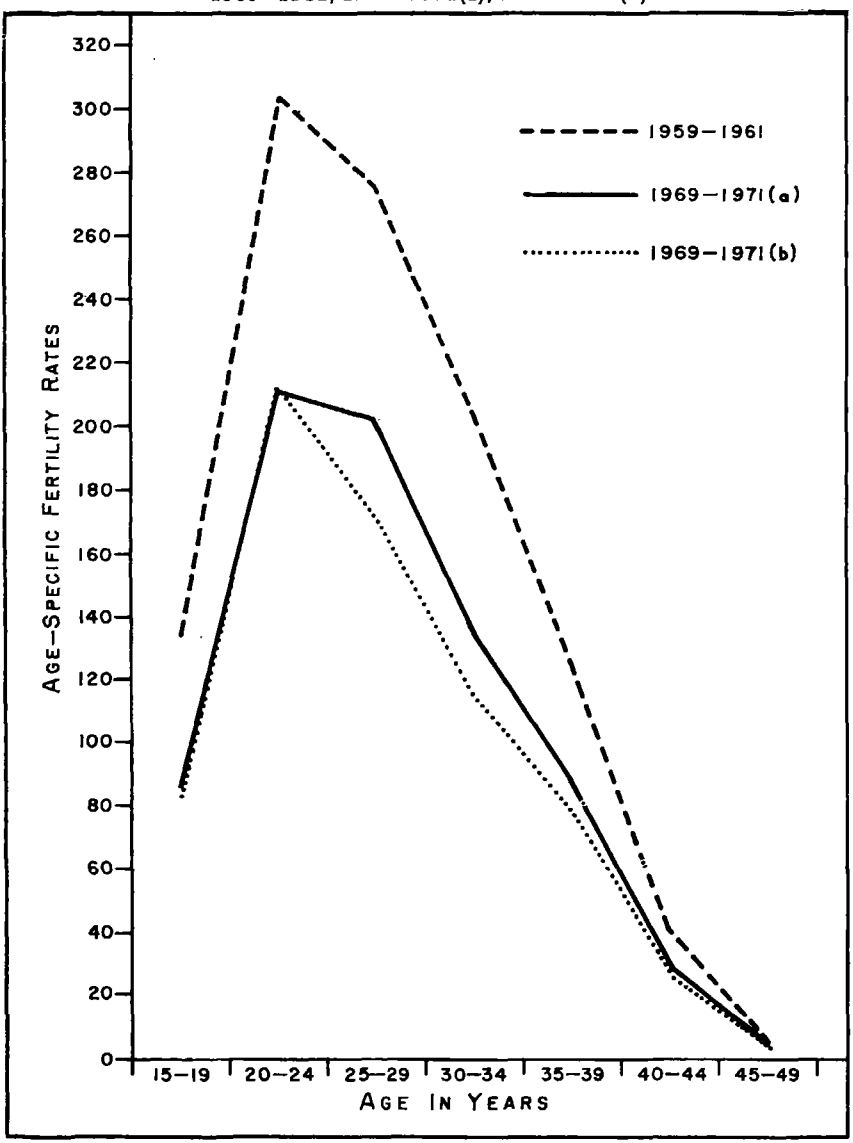


TABLE 2S: AGE-SPECIFIC FERTILITY RATES
1959–1961 AND 1969–1971

Age	Age-specific fertility rates		
	1959–1961	1969–1971	
15–19	.1340	.0861	(.0830)
20–24	.3045	.2102	(.2104)
25–29	.2760	.2015	(.1712)
30–34	.2038	.1350	(.1154)
35–39	.1244	.0877	(.0778)
40–44	.0400	.0289	(.0269)
45–49	.0058	.0047	(.0041)
Total fertility rate	4.9425	3.7705	(3.4440)

TABLE 2T: GROSS AND NET REPRODUCTION RATES

Period	Gross reproduction rates		Net reproduction rates*	
	Rate	Index (1921=100)	Rate	Index (1921=100)
1900–1902 ...	2.02	1,121	1.18	107
1910–1912 ...	1.96	109	1.21	110
1920–1922 ...	1.80	100	1.10	100
1930–1932 ...	1.67	93	1.20	109
1945–1947 ...	2.36	131	1.92	175
1959–1961 ...	2.66	148	2.45	223
1969–1971 (a) ...	1.85	103	1.74	158
(b) ...	1.69	94	1.59	144

*For the periods preceding 1959–1961, an indirect estimate of the Net Reproduction Rate (the Replacement Index) has been used, obtained by forming the quotient having for its numerator the ratio of children under 5 years to women of child-bearing age (15–49 years) in the census population, and for its denominator the corresponding ratio in the relevant "life table population". See: Louis I. Dublin, Alfred J. Lotka and Mortimer Spiegelman: *Length of Life*. Ronald Press Company. 1949.

But the GRR takes no account of the considerable improvement in mortality. If this were taken in to account, as is done in the Net Reproduction Rate (Table 2T), then it would be seen that the over-all improvement in fertility has been appreciably greater than implied by the GRR. Thus, whereas the GRR in 1960 was 48 per cent higher than in 1921, the NRR was 123 per cent higher.

Fertility Differentials by Ethnic Origin

The upward turn in fertility after 1921 was experienced by Guyana as well as Trinidad and Tobago. However, Jamaica and Barbados both had substantial declines in their crude birth rates and Gross Reproduction Rates in 1944–1948 as compared with 1919–1923. (See Tables 2U and 2V). One demographic characteristic common to Trinidad and Guyana is the very large East Indian population, and there is evidence that the large increase in fertility of these two countries after 1919–1923 mainly reflects the considerable increase in the fertility of this East Indian population. As will be seen from Table 2W, while the GRR of the "other ethnic groups" of Guyana increased by 39 per cent from 1.90 in 1901 to 2.64 in 1951, the GRR for the population of Indian descent increased by 125 per cent from 1.61 to 3.63 in the same period.

This very large increase in the fertility of the population of Indian descent has been attributed to changes in the family pattern of this group – up to the early twentieth century the Indian population consisted primarily of adult male and unmarried female indentured workers– and to improvements in the general economic and social conditions of this population.

But, as is clear from Tables 2U and 2V, between 1944–1948 and 1958–1962, there was a much greater increase in fertility in Jamaica and some of the smaller islands than in Trinidad and Tobago. This implies

TABLE 2U: BIRTH–RATES FOR FIVE WEST INDIAN POPULATIONS, 1869–1959 (PER THOUSAND)

Period	Jamaica	Trinidad	British Guiana	Barbados	Grenada
1869–73	–	–	36.0	–	42.1
1879–83	36.7	–	34.7	–	41.8
1889–93	38.3	35.5	29.8	33.9	42.8
1899–1903	–	36.1	–	–	40.9
1909–13	38.7	35.0	30.5	35.4	38.7
1919–23	37.7	32.7	30.5	35.3	35.9
1929–33	–	30.5	33.0	–	–
1944–48	31.9	39.7	37.6	32.1	32.6
*1955–59	39.9	38.9	44.5	32.7	47.5

*From unpublished paper entitled "Birth and Death rates in the British Caribbean 1946–1960" by J. Harewood.

Source: G.W. Roberts *Population of Jamaica*, Table 65.

that at least for this country the rapid growth of fertility among the population of Indian descent was no longer as important as it had been in the earlier period. This is confirmed in Chapter 6, which considers, in more detail, fertility differentials by ethnic origin and other characteristics of parents.

TABLE 2V: ESTIMATED JOINT REPRODUCTION RATES FOR FIVE WEST INDIAN POPULATIONS

Period	Jamaica		Gross reproduction rates			
	GRR.	NRR.	Trinidad	British Guiana	Barbados	Grenada
1844–61	2.57	–	–	–	–	–
1861–71	2.67	–	–	–	–	–
1871–81	2.55	–	–	–	–	–
1879–83	2.45	1.40	–	1.79	–	3.08
1889–93	2.63	1.46	2.01	1.65	2.39	3.05
1899–1903	–	–	2.10	–	–	2.98
1909–13	2.63	1.55	2.07	1.76	2.66	2.89
1919–23	2.64	1.45	2.04	1.88	2.57	2.76
1929–33	–	–	1.92	2.17	–	–
1941–45	2.08	1.59	2.63*	2.64*	2.18*	2.73*
1950–52	2.28	1.85	2.56	3.09	2.17	2.96

*For the period 1945–8.

Source: G.W. Roberts *Population of Jamaica,* Table 69.

TABLE 2W: JOINT GROSS REPRODUCTION RATES FOR BRITISH GUIANA

Year	British Guiana		
	East Indian	Other	All Races
1891	1.21	2.01	1.65
1901	–	–	–
1911	1.61	1.90	1.76
1921	1.89	1.87	1.88
1931	2.62	1.85	2.17
1946	3.14	2.26	2.64
1951	3.63	2.64	3.09

Source: G.W. Roberts, *op.cit.*

Economic and Social Factors Affecting Fertility

There is much less understanding of and agreement on the relative importance of the various economic and social factors affecting fertility, than there is about those affecting mortality. Among the economic and social conditions which are more generally expected to be conducive to reductions in fertility are: greater urbanization, industrialization, higher incomes and levels of living, a higher standard of education, the increasing expense of rearing children, improvement in the status and role of women, and generally, "modernization" in all its facets. But on the basis of these, the birth rates of Trinidad and Tobago should have fallen rather than increased after 1940, and on many of these standards, too, it might have been expected that the level of fertility in Trinidad and Tobago would be lower than that of Jamaica or Barbados. But as shown above this is not true.

In Trinidad and Tobago, then, there is no evidence of the "demographic cycle", at least in the short run. In other parts of the world, also, "there are significant exceptions to the generally accepted belief that net reproduction rates fall as the economic status of a country improves". (Zuckerman – 10).

We have noted, however, that the period of rapid increase in the level of fertility was also the period in which the level of mortality was declining and the general health of the population was experiencing marked improvement. It is possible, then, that "significant improvements in the general health of the population may well lead to higher fecundity (i.e. the ability to bear children) among women, and could therefore lead to an immediate rise in fertility". (Harewood – 2). Certainly the eradication of major diseases, malaria in particular, would have resulted in many more women living to child-bearing age, and hence greatly increasing the number of potential mothers. (See Zuckerman – 10).

b 1960–1970

Crude Birth Rates:

Since 1960 there has been a dramatic decline in the crude birth rate. Table 2G shows a fall from 38 per thousand in 1960 to 25–27 per thousand in 1970, equivalent to a fall of 3½–4¼ per cent per annum. Neither the birth nor the death rate has ever fallen so rapidly at any time and this therefore deserves some particular attention. Table 2X shows the crude birth rate for each year in the interval 1959–1971.

From the table it is seen that the birth rate in 1960 was exceptionally high. It was exceeded, during the decade 1950–1960, only in the years

TABLE 2X. CRUDE BIRTH RATE 1959–1971*

1959	1960	1961	1962	1963	1964	1965
37.44	39.06	37.90	37.88	35.59	34.65	32.81
1966	1967	1968	1969	1970	1971	
30.24	28.18	27.54	24.45	24.50 (27.01)	25.29	

*The population used for each year is an estimated population derived from the 1960 census population as the base. The populations used in 1970 and 1971, therefore, are not related to and are higher than, the 1970 census count. In this table, the figure shown in brackets under 1970 is the CBR based on the 1970 census count.

1954 and 1955. The decline therefore started in 1963 and continued unbroken until 1969. In this interval the largest decline was in 1969, a fall of over 3 per thousand, while only in 1964 and 1968 was the decline in the crude birth rate less than 1 per thousand. However, there has been no decline since 1969, and indeed there was a small increase in 1971.

It is much too soon to be sure that the decline in the birth rate since 1963 will continue to a level that would justify the assumption that the theory of "demographic transition" is now applicable to Trinidad and Tobago. Indeed the halt in the decline since 1970 and the small reversal in 1971 could be a mere fluctuation in the downward trend or it might herald the end of this period of rapid decline. Before discussing the factors which might have contributed to this decline and the probable future trend in fertility, it is necessary to consider some more refined measures of fertility.

Period Fertility Rates:

Tables 2S and 2T compare some fertility measures for the period 1969–1971 with those one decade earlier – 1959–1961.[7] The age-specific fertility rates have fallen appreciably for every age group, (see also Diagram 2.4) and the total fertility rate per woman has declined by 25–30 per cent from 4.94 to 3.77 (3.44). The Gross Reproduction Rate has also declined substantially by between 30 and 36 per cent to about the level in the 1920's and 1930's. The Net Reproduction Rate has fallen as steeply but beacuse of the improved mortality situation it is still appreciably higher than in the 1920–1930 period.

Because of the interest in this decade of rapidly declining fertility rates, Table 2Y shows the age-specific fertility rates and the total fertility rate (per 1,000 women) for each of the years 1960–1971.[8] It will be seen

[7]The figures in brackets are based on the estimated mid-1970 population and are therefore somewhat lower than the figures in which the 1970 census population is used as the denominator.

[8]The population used for each year is an estimated population derived from the 1960 Census population as the base. The populations used in 1970 and 1971, therefore, are not related to and are higher than, the 1970 census figures.

TABLE 2Y: AGE – SPECIFIC FERTILITY RATES AND TOTAL FERTILITY RATES 1960–1971

Age group	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
15–19 ...	131.02	129.03	126.37	116.64	111.81	106.10	101.28	95.15	92.54	80.81	83.16	86.14
20–24 ...	314.76	290.74	285.01	267.50	259.92	244.97	234.79	226.22	222.27	201.55	204.68	219.80
25–29 ...	275.66	260.25	266.75	253.12	244.28	232.92	201.92	183.26	179.28	163.74	167.69	181.21
30–34 ...	221.99	197.84	191.80	183.58	175.97	163.44	146.50	141.26	136.78	111.44	115.79	119.21
35–39 ...	125.20	123.33	125.32	119.98	123.06	113.61	99.82	90.18	91.11	78.28	78.35	77.50
40–44 ...	37.10	41.56	38.57	35.65	33.30	32.40	32.22	26.52	29.24	25.86	27.60	26.55
45–49 ...	5.78	6.04	4.97	5.11	4.01	4.78	3.90	4.98	4.44	4.19	4.01	3.91
Total fertility rate ...	5,557.55	5,243.95	5,193.95	4,907.90	4,761.75	4,491.10	4,102.15	3,837.85	3,778.30	3,329.35	3,406.39	3,572.05

that with few minor exceptions the age-specific rates fell steadily between 1960 and 1969. In 1970 and 1971, however, there has been a reversal in the rates for women under 35 years of age, and at least a considerable slowing down in the decline among the older women 35–44 years old. To summarise this decline, we can use the total fertility rate. This fell from 5558 in 1960 to 3329 in 1969 – a decline of 40 per cent – but then increased again to 3572 by 1971.

Birth-Order (Parity):

Some further insight into the recent movements in fertility can be gleaned by looking at changes in the distribution of the number of births in a given year by birth-order (parity). If women are tending to have fewer children, then we can expect to find that a declining proportion of births would be of a high order, while a growing proportion would be first, second and third order births. This is borne out by Table 2Z which shows the proportion of maternities[9] of each order for 1960 and 1970. The proportion of first-and second-order maternities increased from 37 per cent in 1960 to 49 per cent in 1970, while the proportion of maternities of fifth or higher order fell from 37 per cent to 27 per cent of the total. In part this could reflect a changing age-structure of mothers, with a larger proportion of young mothers. However, as is seen in the Table, the increasing proportion of low-order maternities holds true for the separate age-groups of mothers as well.

TABLE 2Z. MATERNITIES (PROPORTIONS) BY AGE OF MOTHER AND PARITY

Parity	All ages		20–24 years		25–29 years		30–34 years	
	1960	1970	1960	1970	1960	1970	1960	1970
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1–2	37	49	45	62	20	34	10	14
3–4	26	24	40	31	31	33	20	24
5+	37	27	15	7	49	33	70	62

Census Fertility Rates (Children Ever Born per woman):

But despite all this evidence of a declining level of fertility between 1960 and 1970 based on a comparison of the fertility patterns existing at different periods, it is known that hidden factors (such as a postponement

[9] A multiple birth, e.g. a twin or a triplet, is counted as a single maternity, as, of course, is a single birth. The number of live maternities is therefore somewhat smaller than the number of live births.

of child-bearing to a later period) could result in the period rates being artificially depressed at one time, only to be artificially raised at a later period with no appreciable effect on the final average number of children per woman. The decline in the period fertility rates over so short a period, appreciable as they have been, cannot therefore be taken in themselves as evidence of a true decline in fertility. Indeed, if we compare the census fertility rates (live-born children per woman or per mother) for the censuses of 1946, 1960 and 1970, there is no conclusive evidence of a decline in fertility in 1970.

These census fertility rates are shown in Table 2AA. It will be seen that the average number of children per female is lower in 1970 than in 1960 only for women under 30 years of age, and lower than in 1946 only for women under 25 years of age. For all age groups above these, the average number of children per woman is very much higher than at the two earlier censuses. Moreover, this higher average number of children per woman is the result of a higher proportion of mothers per 100 women as well as a higher number of children per mother for most age groups.[10]

The fact is, of course, that ten years is a relatively short period in the reproductive life of a woman, and the effect of the 1960's will be most readily seen among women who are relatively young. In the case of women 35–39 years old in 1970, for example, the increment to the average number of children in the ten-year period 1960–1970 was only about 40 per cent of the over-all average; in other words, the average number of children in 1970 was to a large extent determined by what it had been before the decline in the period rates started.

It is clear from the foregoing that while all the usual period fertility rates have declined sharply during the 1960's there is as yet no indication of any significant, permanent effect on the average number of children per woman. Moreover, because the period of observed decline in the usual fertility rates is so short, it would be reckless to forecast continued declines in the period rates in the future or to maintain that the country has now passed (or is passing) the time of high fertility. Much more research remains to be done as more census and other data become available, both to explain the phenomenon of the declining period rates and to get some better idea of the probable future fertility trends. Some further aspects of fertility are discussed in Chapter 6.

[10]This appears surprising in the light of the considerable declines in the period fertility rates, but a build up of the expected average number of children per woman aged 35–39 in 1970, starting with the average number of children of this group when they were 25–29 years of age in 1960, and adding each year's increment based on the period rates, gives a figure of 4.73 as compared with the recorded 4.96 in 1970. Both figures are appreciably higher than the number of children per woman 35–39 in the earlier census. The small difference of about 5 per cent between the expected and the actual number of children 35–39 years old in 1970 may result from migration (or death) in the interval resulting in a relatively higher loss of women with few or no children. Another possible cause, of course, is inconsistency in the accuracy of reporting of this information from one census to the other. Data are not available to permit full cohort fertility rates to be derived.

TABLE 2AA: (a) CHILDREN EVER BORN PER FEMALE,
(b) NUMBER OF MOTHERS PER 100 FEMALES,
(c) CHILDREN EVER BORN PER MOTHER,

1946, 1960, 1970

Age	Children ever born per female			Number of mothers per 100 females			Children ever born per mother		
	1946	1960	1970	1946	1960	1970	1946	1960	1970
15–19	0.39	0.24	0.13	25.7	16.5	9.3	1.53	1.48	1.35
20–24	1.49	1.55	1.09	62.3	61.0	49.7	2.39	2.54	2.20
25–29	2.39	2.95	2.68	73.2	79.3	78.4	3.26	3.72	3.41
30–34	3.07	3.99	4.09	76.7	84.0	88.4	4.00	4.75	4.63
35–39	3.41	4.52	4.96	77.6	84.4	89.8	4.40	5.35	5.53
40–44	3.69	4.40	5.28	79.1	82.0	88.4	4.67	5.36	5.97
45–49	3.89	4.12	5.21	79.5	79.1	86.9	4.89	5.20	5.99
50–54	4.10	3.81	4.61	80.7	77.6	82.9	5.08	4.91	5.56
55–59	4.25	3.78	4.23	81.9	77.8	80.0	5.19	4.85	5.29
60–64	4.36	3.73	3.69	82.4	76.8	76.1	5.29	4.85	4.85

Summary:

The declining death rate since 1921 represents the cumulative effects of many measures over preceding decades, including improved public health, sanitation and drainage. From the Second World War the control of malaria and other diseases has been particularly important.

Birth rates declined in the first two decades of the present century but increased between 1921 and 1960. At the beginning this was probably largely the result of increasing fertility among the population of Indian descent. Later the improved health situation may well have resulted in a somewhat higher fecundity. Between 1960 and 1970 the period fertility rates have declined significantly, though there appears to have been a halt in this decline since 1971. Moreover there is no clear evidence that this decline in the period fertility rates is accompanied by a fall in the average size of family. The period is too short to be clear whether the country is moving to a lower level of fertility. It seems likely that the declining period fertility rates are, in some measure, the result of the increasing use of contraception. In this case, part of the decline may be a result of the postponement rather than the limitation of births among contraceptors. Here again it is too early to be sure.

CHAPTER 3

POPULATION DISTRIBUTION AND INTERNAL MIGRATION

Introduction

Since population growth was first related to the development of the plantation cultivation of sugar cane, the population was necessarily concentrated in the sugar cane areas on the western half of the country, and in the city of Port of Spain. Subsequent population distribution was influenced by the development of the other major export crop – cacao in the north and east, and the mining and refining of petroleum in the south. These developments contributed to the rapid development of the second town of San Fernando.

Since the Second World War, there has been accelerated urban growth partly as a result of the industrialization and non-agricultural economic development that has taken place, and partly because the rapidly growing rural population was forced away from the limited opportunities in predominantly agricultural areas.

The differential rates of growth within the country are primarily the result of internal migration of persons born in Trinidad & Tobago, and the preference of immigrants, apart from indentured immigrants, to move to the rapidly developing parts of the country.

This chapter first discusses population growth by administrative areas and the existing population distribution, and next deals with internal migration since the Second World War.

Population Distribution

At the censuses of 1871, 1881 and 1891, Trinidad was divided into two towns (Port of Spain and San Fernando) and thirteen Ward Unions. By 1901 the Borough of Arima had been added and there had been extensive revision of the Ward Union boundaries. In the 1921 Census the Counties first appeared, and the Ward Unions were re-arranged into the present 29 wards. It is only for the past 50 years, therefore, that population growth by administrative area can be consistently traced.[1] For this purpose, the separate areas dealt with are the 3 towns. and

[1]There have, however, been some small changes in the boundaries of the towns since 1921.

8 counties of Trinidad and the island ward of Tobago. Because the 4 counties on the east of Trinidad are small in terms of population (especially the Counties of St. David, Nariva and Mayaro), these are often grouped together as the Eastern Counties.[2] (See Map–Diag.3.1)

The population of the city of Port of Spain increased by 50 per cent between 1921 and 1946, but there was little growth in the next inter-censal period and in the decade 1960–1970 the city lost about one-third of its population. The population of the city in 1970 was therefore almost identical with that of 1921. The town of San Fernando also lost population in the 1960's and the population of the three towns together fell by about one quarter in this decade. The other major administrative areas gained population in every inter-censal period, the exceptions being in the small county of St. David and some very small losses in St. Andrew before 1946. The largest population gain in the period since 1921 was in St. George which had about 72,000 persons in 1921 and over 312,000 in 1970. (Table 3A.)

TABLE 3A: POPULATION BY ADMINISTRATIVE AREA, 1921–1970

Administrative area	1921	1931	1946	1960	1970
Three Towns	76,400	89,772	129,704	144,766	111,195
Port of Spain ...	61,580	70,334	92,793	93,954	62,680
San Fernando ...	10,610	14,353	28,842	39,830	36,879
Arima	4,210	5,085	8,069	10,982	11,636
St. George	71,637	86,445	138,362	256,478	312,085
Caroni	50,622	51,193	61,739	90,513	115,254
Victoria	67,113	69,338	87,441	132,721	163,164
St. Patrick	34,130	46,820	69,183	108,218	117,189
Eastern Counties ...	42,621	43,850	44,333	61,928	73,430
St. David	6,708	5,664	5,037	6,032	6,009
St. Andrew	23,576	23,340	23,285	32,590	39,071
Nariva	8,487	10,809	11,815	17,226	20,902
Mayaro	3,850	4,037	4,196	6,080	7,448
Trinidad: Total	342,523	387,418	530,762	794,624	892,317
Tobago	23,390	25,365	27,208	33,333	38,754
Trinidad and Tobago ...	365,913	412,783	557,970	827,957	931,071*

[2]In a number of instances these counties are paired as follows:–
(a) Nariva-Mayaro and (b) St. Andrew-St. David.

*A total of 9,648 persons enumerated at the 1970 Census have been excluded from the tabulations. These consist of 2,213 tourists, and 7,435 institutional inmates for whom demographic characteristics are not easily secured at census enumeration. Most of these persons were enumerated in Port of Spain and St. George.

Table 3B shows the inter-censal growth rates for the various administrative areas. Of the three towns, the City of Port of Spain grew the least rapidly in every period of growth, and declined most rapidly in the last period. The town of San Fernando grew most rapidly of the three in all periods but the last, the rate of growth being highest of all administrative areas in the period 1931–1946 when the town doubled its population. Taken together, the rate of growth of the three towns was slightly above average in the periods 1921–1931 and 1931–1946, but they grew much more slowly than any other area in the period 1946–1960 while no other area suffered a loss in the last inter-censal period.

TABLE 3B: AVERAGE ANNUAL RATES OF GROWTH IN INTER–CENSAL PERIODS FOR EACH ADMINISTRATIVE AREA

Administrative area	1921–31	1931–46	1946–60	1960–70
Three Towns	1.8	3.0	0.8	– 2.3
Port of Spain	1.4	2.1	0.1	– 3.3
San Fernando	3.5	6.7	2.7	– 0.7
Arima	2.1	3.9	2.6	0.6
St. George	2.1	4.0	6.1	2.2
Caroni	0.1	1.4	3.3	2.7
Victoria	0.3	1.7	3.7	2.3
St. Patrick	3.7	3.2	4.0	0.8
Eastern Counties	0.3	0.1	2.8	1.9
St. David	– 1.6	– 0.7	1.4	...
St. Andrew	– 0.1	...	2.9	2.0
Nariva	2.7	0.6	3.3	2.1
Mayaro	0.5	0.3	3.2	2.2
Trinidad	1.3	2.5	3.6	1.2
Tobago	0.8	0.5	1.6	1.6
Trinidad and Tobago	1.3	2.4	3.5	1.2

The county of St. George which geographically includes two of the towns – Port of Spain and Arima – grew particularly rapidly during the period 1946–1960, and also experienced a very high rate of growth in the preceding period. Its rate of growth in the latest inter-censal period, though above the average, was lower than that of Victoria (which geographically includes San Fernando) or Caroni, and only fractionally higher than the

Eastern Counties. Among the other areas, the county of St. Patrick grew most rapidly in the period 1921–1931 with the development of the oil mining industry, and the rate of growth of this county was also well above the average in the two succeeding periods. The decline in the growth and importance of the oil mining industry in the 1960's however, resulted in a very marked decline in the growth of population in the decade 1960–1970.

The lowest rates of growth were experienced by the rural Eastern Counties and the island ward of Tobago.

The results of these differential rates of growth on the distribution of the population are shown in Table 3C. The three towns together increased their proportion of the total population slightly between 1921 and 1946 but thereafter they lost appreciably, ending with only 12 per cent of the total population in 1970 as compared with 23 per cent in 1946. This decline in the town population is understandable in the light of the expansion of the business sectors within the town limits and the trend to suburban living made possible by modern transportation. There have been small adjustments to the boundaries of Port of Spain and San Fernando in the period 1921–1946, increasing the towns at the expense of the

TABLE 3C: PROPORTION OF THE TOTAL POPULATION IN EACH ADMINISTRATIVE AREA 1921–1970

Administrative area	Proportion				
	1921	1931	1946	1960	1970
Three Towns	20.9	21.8	23.2	17.5	12.0
Port of Spain	16.8	17.0	16.6	11.4	6.7
San Fernando	2.9	3.5	5.2	4.8	4.0
Arima	1.2	1.2	1.4	1.3	1.2
St. George	19.6	21.0	24.8	31.0	33.5
Caroni	13.8	12.4	11.1	10.9	12.4
Victoria	18.4	16.8	15.7	16.0	17.5
St. Patrick	9.3	11.4	12.4	13.1	12.6
Eastern Counties	11.6	10.6	8.0	7.5	7.9
St. David	1.8	1.4	0.9	0.7	0.6
St. Andrew	6.4	5.7	4.2	3.9	4.2
Nariva	2.3	2.6	2.1	2.1	2.2
Mayaro	1.1	1.0	0.8	0.7	0.8
Trinidad	93.6	93.9	95.2	96.0	95.9
Tobago	6.4	6.1	4.9	4.0	4.2
Trinidad and Tobago	100.0	100.0	100.0	100.0	100.0

adjacent countries, but these have been negligible in the context of the movement outward from the towns.

The County of St. George has gained most from the suburban movement out of the towns, its share of the total population increasing from less than one-fifth in 1921 to one-third in 1970. Victoria, the other county which gained from the suburban movement (in this case out of San Fernando) did not gain enough to increase its share of the total population significantly, and though the proportion in 1970 (17.5 per cent) was somewhat higher than at the other censuses from 1931 onwards, it is still slightly less than in 1921. The loss in the period 1931–1946 is in part the result of the adjustment in the boundary of San Fernando.

Of the other areas, the Eastern Counties (especially St. Andrew and St. David), and the island ward of Tobago have each obtained a decreasing share of the total population at successive censuses. The county of St. Patrick increased its share with the development of the oil mining industry between 1921 and 1946 and has since fairly maintained this proportion. The county of Caroni, the centre of the sugar cane area, lost steadily until 1960 but in 1970 had increased its proportion to 12.4 per cent from under 11 per cent in the preceding census.

From Table 3C, a simple but effective measure of the change in population distribution from one census to another can be obtained by first deriving the percentage-point differences (i.e. the difference between the percentages at the two censuses for each area), and next by summing the percentage-point differences of like sign to obtain the *index of dissimilarity*. This index of dissimilarity can be interpreted as the proportion of the national population which would need to be removed from their place of residence at the second census, in order to obtain a percentage distribution of population by area which is identical to that which existed at the earlier census. These percentage-point differences and the indexes of dissimilarity are shown in Table 3D.

The changes demonstrated by the percentage-point differences have already been inferred and discussed above. The summary *index of dissimilarity* increased from 4.3 in the interval 1929–1931 to 6.6 and 7.2 in the two succeeding inter-censal intervals. In the last interval 1960–1970, however, the index fell again to 6.1 The apparent decline in the volume of population redistribution in the last inter-censal period reflects the fact that the inter-censal periods are not all of the same length. An *adjusted* index of dissimilarity, equivalent to a 10-year period has therefore been derived for 1931–1946 and 1946–1960 based on the average annual.

TABLE 3D: PERCENTAGE POINT DIFFERENCES AND INDEXES OF DISSIMILARITY FOR MAJOR ADMINISTRATIVE AREAS

Administrative area	Percentage point differences			
	1921–31	1931–46	1946–60	1960–70
Port of Spain	+ 0.2	– 0.4	– 5.2	– 4.7
San Fernando	+ 0.6	+ 1.7	– 0.4	– 0.8
Arima	–	+ 0.2	– 0.4	– 0.1
St. George	+ 1.4	+ 3.8	+ 6.2	+ 2.5
Caroni	– 1.4	– 1.3	– 0.2	+ 1.5
Victoria	– 1.6	– 1.1	+ 0.3	+ 1.5
St. Patrick	+ 2.1	+ 1.0	+ 0.7	– 0.5
Eastern Counties	+ 1.0	– 2.7	– 0.5	+ 0.4
St. David	– 0.4	– 0.5	– 0.2	– 0.1
St. Andrew	– 0.7	– 1.5	– 0.3	+ 0.3
Nariva	+ 0.3	– 0.5	–	+ 0.1
Mayaro	– 0.1	– 0.2	– 0.1	+ 0.1
Tobago	– 0.3	– 1.2	– 0.9	+ 0.2
Index of dissimilarity	± 4.3	± 6.6	± 7.2	± 6.1
Adjusted index of dissimilarity ...	± 4.3	± 4.4	± 5.1	± 6.1

change in these two irregular inter-censal periods. The adjusted index shows little change between 1921–1931 and 1931–1946 but a growing increase in the volume of population in the two succeeding periods.

A number of measures of population distribution are concerned with indicating the relationship between population and the size of the area they occupy. The simplest demographic summary measure of this type is the measure of *population density*. As with all summary measures, population density over-simplifies the relationship and its limitations must be borne in mind. The most obvious is that for a variety of reasons some areas are physically capable of carrying a much larger population per square kilometre than others. Thus, those administrative areas in Trinidad in which a large proportion of the land is swampy, mountainous or forested could not be expected to have as high a density as those consisting mainly of fertile agricultural land.

Table 3E shows the density per square kilometre for each of the major administrative areas at each of the censuses of population since 1921. Since there has not been a sufficiently large change in the area (square

kilometres) of any of the administrative areas to affect the measure of density, the changes over time in the density of any administrative area will be of the same order as the changes in the total population of that area. Our main interest in this table, therefore, is to compare the density of population of the various administrative areas in the most recent census. Following the appreciable decline in the enumerated population in Port of Spain in 1970, the density of population of the three municipalities varied only between about 5,000 per square kilometre (Arima) and 6,500 (Port of Spain).

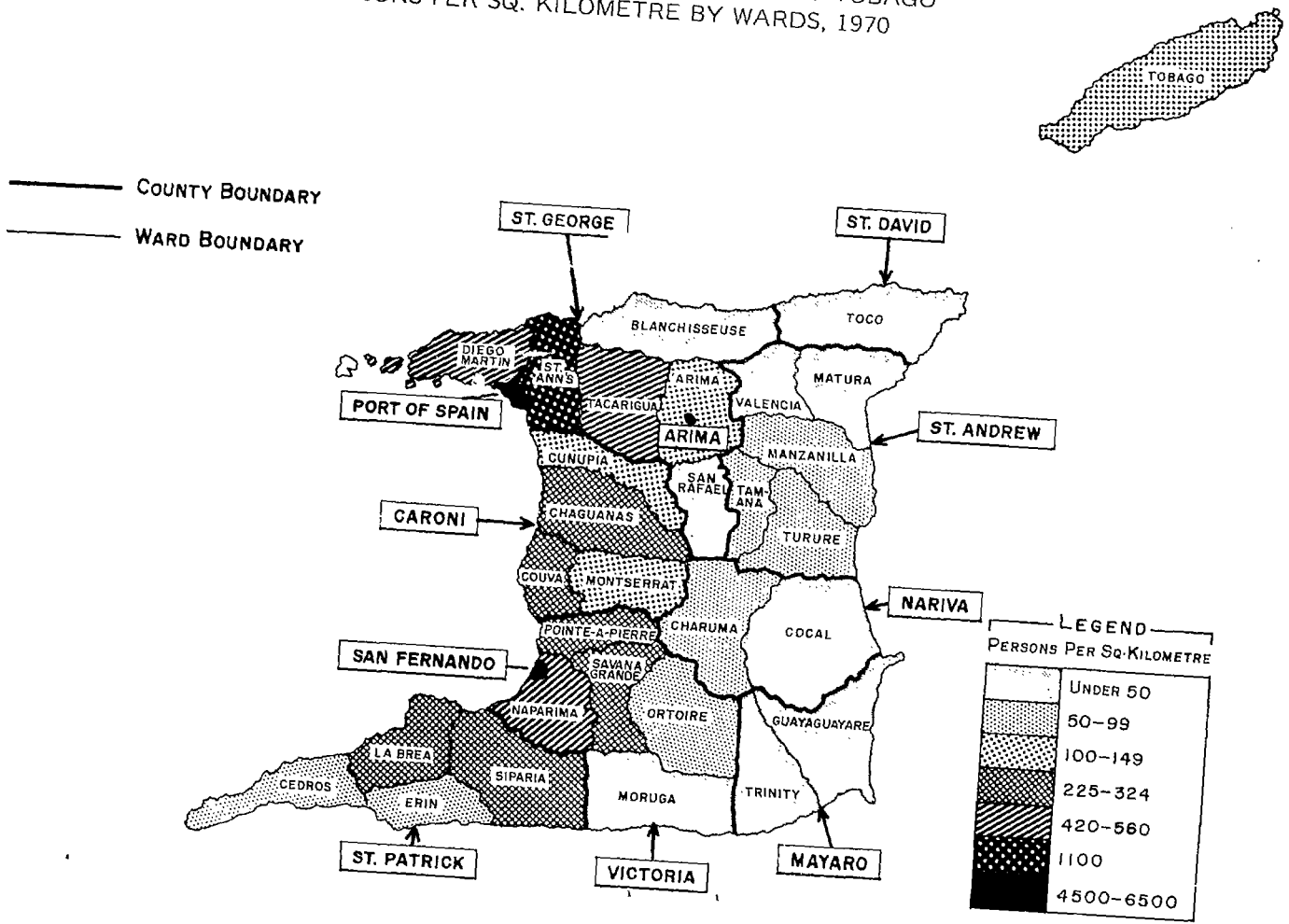
TABLE 3E: DENSITY PER SQUARE KILOMETRE FOR ADMINISTRATIVE AREAS

Administrative area	Density per Square kilometre				
	1921	1931	1946	1960	1970
Trinidad and Tobago	71.4	80.5	108.8	161.4	183.4
Port of Spain	6,414.6	7,326.5	9,665.9	9,786.9	6,529.2
San Fernando	1,632.3	2,208.2	4,437.2	6,127.7	5,673.7
Arima	1,830.4	2,210.9	3,508.3	4,774.8	5,059.1
St. George	78.1	94.2	150.8	279.6	340.2
Caroni	91.3	92.4	111.4	163.3	207.3
Victoria	82.5	85.2	107.5	163.2	200.6
St. Patrick	50.5	69.3	102.4	160.2	173.5
Eastern Counties ...	23.1	23.7	24.0	33.5	39.7
St. David ...	32.8	27.7	24.6	29.5	29.4
St. Andrew ...	32.2	31.9	31.8	44.5	53.4
Nariva	15.9	20.2	22.1	32.2	39.1
Mayaro	10.2	10.7	11.1	16.1	19.7
Tobago	77.7	84.3	90.4	110.7	128.8

In the four large counties in Trinidad, density was highest in St. George (340) and lowest in St. Patrick (174). The density in Tobago (128) was not much lower than in St. Patrick, but the Eastern counties were all very sparsely populated, with an average of 39 persons per square kilometre, and less than 20 in the case of Mayaro.

The population density in 1970, based on the minor administrative areas (wards) is shown in Figure 3.1.

DIAGRAM 3.1. DENSITY MAP TRINIDAD AND TOBAGO
PERSONS PER SQ. KILOMETRE BY WARDS, 1970



It is possible to use the density of population information to obtain some measure of the extent to which the population of the country is tending to become more or less concentrated over time.

Table 3F shows the *concentration ratio*[3] which can vary between a minimum of *zero*, where the population is evenly distributed over the country, and a maximum of *one*, which would be the extreme case where all the population resided in a single administrative area.

TABLE 3F: CONCENTRATION RATIO FOR MAJOR ADMINISTRATIVE AREAS 1921–1970

Year	1921	1931	1946	1960	1970
Concentration ratio	0.45	0.42	0.47	0.47	0.44

For Trinidad and Tobago, at the major administrative area level, the concentration ratio is well under 0.5. The greatest concentration was at the censuses of 1946 and 1960, but in 1970, with the decline in the population of Port of Spain and the other municipalities, and the relatively slow rate of growth of St. George, the level of population concentration has declined again to almost the same as it was in 1931.

Urban–Rural Residence:

It is clear from the above discussion that the three towns alone cannot properly be taken as being the whole of the urban area of the country for two reasons: first, there are adjacent areas, outside of the legal boundaries of the municipalities – especially of Port of Spain and to a lesser extent of San Fernando – the population of which consists largely of "urban" overflow from the main towns; and secondly, there are a number of smaller towns scattered over the country, which have no legal urban status, but the population of which should properly be treated as urban.

It is, however, by no means simple to trace the growth of any such enlarged urban population. As regards the urban areas adjacent to, but outside of the legal boundaries of the municipal areas, the first attempt to identify these and to show a population of Suburbs of Port of Spain and

[3]The concentration ratio, CR, is given by the formula:–

$$10{,}000\ CR = \sum_{i=1}^{k} X_i Y_{i-1} - \sum_{i=1}^{k} X_{i-1} Y_i$$

Where X and Y are the cumulative percentages of population and area respectively, and k is the number of areal units

Suburbs of San Fernando was made at the time of the 1960 Census of Population. Some information has been available for the smaller towns at earlier censuses, but up to now no attempt has been made to be consistent in the list of small towns nor to identify the boundaries of these unincorporated areas to ensure comparability at different censuses. Thus, in 1931, nine minor towns, i.e. towns defined by Proclamation but not enjoying municipal privileges, were identified, six in Trinidad and three in Tobago. The 1931 census report also includes information for numerous "villages." From the 1921 census report, the population for "towns" bearing these same names is given (though the complete list of towms and villages are not identical), but the population of these nine "towns" according to the two census reports, would have declined from 26,000 in 1921 to 21,300 in 1931 – a decline of over 5,000 at a time when the total population of the country increased by 47,000 and the population of the municipalities by over 13,000. It seems most likely, therefore, that the apparent decline stems from differences in the boundaries of these "towns" as used at the two censuses.

At the 1946 Census, a total of 167 "minor towns and villages" were reported on in the census officer's report, 93 of these with populations of over 1,000 of which 12 had a population of over 4,000. (See:Colony of Trinidad & Tobago – Census 1946). But here again there was no definition of the boundaries of these places, nor any basis given to allow determination of which of the "towns and villages" should be treated as urban and which were merely villages of agricultural workers.

A special effort was made at the 1960 Census of Population to identify urban areas outside of the main towns. First, suburbs of Port of Spain and San Fernando were identified, being areas contiguous to but outside of the legal boundaries of these two municipalities and clearly containing an overflow of population from the municipal areas. In addition two "special areas" were identified, one east and one west of Port of Spain, the one to the east being considerably larger than the other.[4]

[4]The Eastern Main Road Special Area stretches from the eastern boundary of the suburbs of Port of Spain, to Arouca, a distance of about twelve miles. Settlements on both sides of this section of the Eastern Main Road are included. This Special area comprises sixteen "small towns", one of them, San Juan, with a population of over 30,000 and three others with populations of over 10,000 in 1960. For some purposes there might be some advantages in treating these small towns separately, adding their population with that of the other 23 small towns identified at the 1960 Census. However, because these are so clearly now part of an extended Port of Spain area, they are included, along with the Western Main Road strip, as part of Greater Port of Spain.

Apart from the above urban areas clearly associated with the two larger municipalities, the 1960 Census identified 23 small towns, 19 in Trinidad and 4 in Tobago.[5] As stated earlier, at the census of 1960, out of a total population of 828,000, the population of the three towns totalled 144,800 or 17.5 per cent of the country's total population. If we add to the three main towns, the adjacent suburbs and special areas which were designated urban, the total population of the "metropolitan" areas was 301,300 or 36 per cent of the total population. (Table 3G.)

Of this total, the main towns and their suburbs comprised 184,100 and special areas east and west of Port of Spain, 117,200. The area of

TABLE 3G: THE POPULATION OF THE MAIN TOWNS, SUBURBS, SPECIAL AREAS AND SMALL TOWNS, 1960 AND 1970

	1960	1970	1960	1970
City of Port of Spain	93,954	62,680		
Suburbs of Port of Spain	26,740	28,404		
Port of Spain and Suburbs			120,694	91,084
Borough of San Fernando	39,830	36,879		
San Fernando Suburbs	12,625	16,663		
San Fernando and Suburbs ...			52,455	53,542
Arima Borough	10,982	11,636	10,982	11,636
Total Main Town and Suburbs: ...			184,131	156,262
Special Areas (add to Port of Spain)				
Diego Martin Special Area	9,201	11,909		
Eastern Main Road Strip	107,994	111,750		
Total Special Areas:			117,195	123,659
Total Main Towns, Suburbs and Special Areas			301,326	279,921
Greater Port of Spain (i.e.) City of Port of Spain, Suburbs of Port of Spain and Special Areas)			237,889	214,743
Total Small Towns			70,070	75,961 *(74,427)*
Total all Urban Areas			371,396	355,882

[5] "Small towns were selected on the basis of the presence of certain institutions and facilities as well as the size of the population they supported. In general the minimum population for selection as a small town was 2,000. But other criteria were used in determining whether or not a particular settlement qualified for classification as a small town. The quality of roads, the presence or absence of electric power and adequate water supply were among the principal criteria used. In addition institutions such as schools, hospitals, Government offices, court houses, police stations and cinemas were also considered in classifying settlements as small towns".

Greater Port of Spain, consisting of the city, the suburbs and the two special areas, therefore had a total of 237,900 persons or 29 per cent of the total population of the country.

The 23 small towns outside of the suburbs and special areas, which were identified at the 1960 census had, between them, a population of 70,100. The total urban population, therefore, of all the above areas, was 371,400 or 45 per cent of the total population.

TABLE 3H: SIZE DISTRIBUTION OF MAIN TOWNS AND SMALL TOWNS 1960

Size of place	Number of towns	Population	Per cent of urban population	
Under 1,000	4	3,545	1.0	1.0
1,000 – 1,999	6	10,015	2.7	3.7
2,000 – 2,999	2	4,359	1.2	4.8
3,000 – 3,999	5	17,843	4.8	9.6
4,000 – 4,999	3	13,787	3.7	13.3
5,000 – 9,999	3	20,521	5.5	18.9
10,000 – 14,999	1	10,982	3.0	21.8
15,000 – 49,999	–	–	–	21.8
50,000 – 199,999	1	52,455	14.1	35.9
Over 200,000	1	237,889	64.0	100.0
Total	26	371,396	100.0	

From Table 3H it will be seen that just 1 per cent lived in 4 very small towns of under 1,000 persons, just under 3 per cent were in 6 towns of 1,000 but under 2,000 persons, and a further 1 per cent in 2 towns of 2,000 but under 3,000 persons. In all, then, just under 5 per cent of the urban population lived in 12 small towns of under 3,000 population in size. There were 5 small towns with a population of between 3,000 and 4,000 each, and with 5 per cent of the total population; and a further 6 small towns varying in size from 4,000 to 10,000 and with a population comprising 9 per cent of the total urban population. The 23 small towns together, therefore, had a population totalling 19 per cent of the total urban population. Of the 3 large areas, the Borough of Arima had 3 per cent of the total urban population, San Fernando and its suburbs had 14 per cent, while 64 per cent of the total urban population lived in the area defined as Greater Port of Spain.

At the present time a similar analysis for 1970 is not possible. Data for 1970 are of course available for the identical areas which were treated as urban in 1960. But this is inadequate since the semi-urban areas have been extended by the development of new housing areas, and undoubtedly some new small towns have developed. As yet no information is available as regards what should be the urban area in 1970. Because of the large decline in the population of the main towns, the population identified as urban in 1960 was a smaller proportion of the total population in 1970 than it was in 1960. It is clear that this is because the physical area to be classified as urban in 1970 must be extended to include these new semi-urban areas and small towns and until this is done a comparison with 1960 cannot be undertaken.

Internal Migration

The shifts in population distribution discussed above are, to some extent, the result of differences in the rate of natural increase, and of differences in the net effect on these areas of migration into or out of the country. The principal cause of the shifts, however, is the movement of persons from one area of residence within the country to another – "internal migration".[6]

Some limited information on internal migration was obtained at the census of 1946 by recording, for each person born in Trinidad & Tobago, the town or district in which he was born. Information on the length of time that persons, not born in their county of residence, were living in the present county was not obtained. Moreover, of the persons born in Trinidad and Tobago, the place of birth within Trinidad was not given for nearly 10 per cent so that this further restricts the usefulness of this information.

More detailed, accurate and meaningful statistics on internal migration are available for the 1960 and 1970 censuses of population. In both of these censuses, as in 1946, internal migrants are determined by a comparison of place of birth and place of present residence. In these later censuses, however, the place of birth is obtained with sufficient detail for nearly all persons born in the country, and in addition information has been obtained on the length of time that the migrant has been living in the present county/ward of residence. Some limitations to the available data should, however, be pointed out before the available statistics are discussed.

[6]It should be possible to breakdown the growth of the administrative areas since the 1946 census into its various components: natural increase, net internal migration, and net international migration as a residual. However, the distribution of the births and deaths by administrative area appears unsatisfactory for some of the years, and this breakdown is therefore not included in the present study.

First of all it should be remembered that the volume of internal migration is to some extent dependent on the sub-division of the country for the purpose of this study. In general, the larger the number of areas into which a country is divided, the larger will be the number of internal migrants. This is particularly relevant in the case of Trinidad and Tobago in that in 1960 (and 1970) the wards of St. George have been treated as separate areas while in 1946 the county of St. George was taken as a single area. In the later censuses, therefore, persons born in the ward of Tacarigua and found at census time resident in the ward of St. Anns (both in the county of St. George) of whom there were 2,050 males and 2,500 females in 1960, would be counted as internal migrants. In 1946 these would not have been treated as migrants as they would have been living in the same county in which they were born. On the other hand, St. Andrew/St. David is treated as a single area in 1960 and 1970, and so is Nariva/Mayaro. In 1946 these were four separate areas and hence movement between St. Andrew and St. David as well as between Nariva and Mayaro was treated at that census as internal migration. It is not possible to determine t ıe effect in 1960 and 1970 of grouping together the Eastern Counties in pairs, but as regards the effect of separating the wards of St. George, in 1960 there were 97,850 male internal migrants; if St. George was treated as a single area the number of male internal migrants would have been 90,550 or 7.5 per cent less.

Another point is that the number of migrants in any given period as obtained from the census is only the survivors of the persons who have moved. Persons who have moved from their place of birth and since died in their new area of residence are entirely omitted and hence the census gives a minimum measure of internal migration. In addition, since internal migrants are taken as persons now resident in an area different from that in which they were born, persons who have lived away from their place of residence but had returned to that place by the time of the census are treated as non-movers. If internal migration were based on a comparison of present residence and last residence, the number of internal migrants would be larger as persons who have returned to their place of birth would still be counted. (See Harewood, 1967.) Also, it should be noted, the period of residence in the present area is not necessarily the period that the migrant has moved away from his place of birth. This is clearly the case where a migrant has left his place of birth and lived in a number of different areas before moving to the area in which he now resides. Finally, it should be noted that persons born outside of Trinidad and Tobago are excluded from the census tabulations of internal migrants.

Bearing in mind these special aspects of the census definitions of internal migration, we now consider the volume and movement of local-born persons within the country as evidenced at the last three censuses of population.

Internal Migrants – 1946 Census:

Table 3J shows the number of in-and out-migrants and the net migrants for each county as derived at the 1946 Census. This table excludes those persons for whom county of birth in Trinidad was not given. The counties with the largest net in-migration are St. George with 25,500 and St. Patrick with 12,500. Counties with a large net loss through internal migration are Port of Spain, Tobago, Caroni, and Victoria (including San Fernando.) The net loss from Port of Spain

TABLE 3J: IN–MIGRANTS, OUT–MIGRANTS AND NET MIGRANTS FOR EACH ADMINISTRATIVE AREA – 1946 CENSUS*

Administrative area	In—migrants	Out—migrants	Net migrants
Port of Spain	12,617	26,086	+ 12,005
St. George	41,916	16,442	
Caroni	10,611	19,556	– 8,945
Victoria	18,328	24,172	– 5,844
St. Patrick	20,483	7,994	+ 12,489
St. David	1,575	2,692	– 1,117
St. Andrew	7,160	8,696	– 1,536
Nariva	5,651	3,441	+ 2,210
Mayaro	1,700	1,247	+ 453
Tobago	1,328**	11,043	– 9,715

*Excludes 47,062 persons born in Trinidad n.o.s.
**Excludes 392 persons born in Trinidad n.o.s.

Source: West Indian Census, 1946, Vol. II, Part G.

suggests that the movement to the suburbs had already begun, but the Census Report suggests that it reflects the fact that there were "large numbers of persons born in Port of Spain in the Colonial Hospital yet never really resident there". That report therefore groups together Port of Spain and St. George and shows a net gain for these two taken together of 12,000. The large gain to St. Patrick no doubt indicates the movement of persons in to the oilfield areas during the Second World War, a movement which probably also accounts for much of the movement

out of Victoria. The movement out of Caroni and to a lesser extent out of Victoria are probably also in large measure a war time movement out of the sugar producing areas in to the urban and oilfield areas. The large-scale movement of persons from Tobago to Trinidad is of long standing.

Internal Migrants – 1960 Census:

At the census of 1960, one in four of the persons born in Trinidad and Tobago were not living in the major administrative area of their birth. The number of such movers was 207,200, comprising 97,800 males and 109,400 females. Of these, the number whose most recent movement was in the inter-censal period 1946–1960 was 148,200 (70,600 males and 77,600 females), while 23,200 had last moved during the years of the Second World War (1940–1945) and the remaining 35,800 had moved before 1940.

From the 1960 census, it is possible to sub-group internal migrants into those who moved in the period 1946–1960 and those who moved before 1946. This information is further summarised in Table 3K which shows for each major administrative area, the number of persons it gained from or lost to each other administrative area in the inter-censal interval 1946–1960. For both sexes together, County St. George gained about 47,000 persons through internal movement, gaining from every other administrative area. Because of the large movement into this County the table shows movement in to and out of the three largest wards within the county separately, and the remaining wards grouped together. Each of these wards of St. George also gained population from every administrative area outside of St. George in the period 1946–1960, but the largest movement was in to St. Anns (29,000) and Diego Martin (13,000).

Apart from the County of St. George, the only administrative areas which had a net gain through internal migration were St. Patrick and Nariva/Mayaro but the net movement in to these areas was very small by comparison. St. Patrick gained its migrants from all areas except St. George and Nariva/Mayaro, while Nariva/Mayaro lost to St. George and San Fernando, had a balanced exchange with Port of Spain, and gained from the others.

The area which lost the most population through migration was Port of Spain (25,000). All but 200 of this loss was to St. George. Tobago lost to every other area, but its total loss was less than one-third of the loss from Port of Spain. Other areas which lost 5,000 or more were Caroni and St. Andrew/St. David. Victoria which gained small numbers from most areas, including the three municipalities, however, had a

TABLE 3K: LOCAL BORN INTERNAL MIGRANTS (BOTH SEXES) WHO MOVED INTO 1960 RESIDENCE IN THE PERIOD 1946–1960 SHOWING NET MOVEMENT BETWEEN AREAS: (PLACE OF BIRTH AND PLACE OF PRESENT RESIDENCE)

Administrative Area	Net Internal Migrants	Gain from (+) or Loss to (–)					
		Port of Spain	San Fernando	Arima	Wards of St. George		
					Total county	Diego Martin	St. Anns
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Trinidad and Tobago							
2. Port of Spain	– 25,185	–	– 226	+ 82	– 24,893	– 8,706	– 13,856
3. San Fernando	– 2,408	+ 226	–	+ 68	– 2,618	– 640	– 1,477
4. Arima	– 2,436	– 82	– 68	–	– 1,294	– 269	– 767
5. County of St. George	+ 46,995	+ 24,893	+ 2,618	+ 1,294			
Wards of St. George:						(–407)	(–1,273)
5A. Diego Martin	+ 13,080	+ 8,706	+ 640	+ 269	(+407)	–	+ 43
5B. St. Anns	+ 28,989	+ 13,856	+ 1,477	+ 767	(+1,273)	– 43	–
5C. Tacarigua	+ 2,426	+ 2,042	+ 436	+ 255	(–2,615)	– 378	– 1,258
5D. Rest of St. George	+ 2,500	+ 289	+ 65	+ 3	+ 935	+ 14	– 58
6. Caroni	– 5,338	+ 26	– 95	+ 167	– 3,978	– 421	– 2,325
7. Victoria	– 625	+ 507	+ 539	+ 267	– 2,120	– 484	– 1,287
8. St. Patrick	+ 1,325	+ 624	+ 110	+ 318	– 2,005	– 394	– 135
9. Nariva/Mayaro	+ 584	– 4	– 174	+ 79	– 941	– 119	– 698
10. St. Andrew/St. David	– 5,145	– 328	– 106	+ 184	– 4,059	– 556	– 2,477
11. Tobago	– 7,767	– 677	– 190	– 23	– 5,087	– 1,084	– 3,481

TABLE 3K: LOCAL BORN INTERNAL MIGRANTS (BOTH SEXES) WHO MOVED INTO 1960 RESIDENCE IN THE PERIOD 1946–1960 SHOWING NET MOVEMENT BETWEEN AREAS: (PLACE OF BIRTH AND PLACE OF PRESENT RESIDENCE)—(Continued)

Administrative Area	Gain from (+) or Loss to (–)							
	St. George (Concluded)							
	Tacarigua	Rest of St. George	Caroni	Victoria	St. Patrick	Nariva/ Mayaro	St. Andrew/ St. David	Tobago
	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1. Trinidad and Tobago ...								
2. Port of Spain	– 2,042	– 289	– 26	– 507	– 624	+ 4	+ 328	+ 677
3. San Fernando	– 436	– 65	+ 95	– 539	– 110	+ 174	+ 106	+ 190
4. Arima	– 255	– 3	– 167	– 267	– 318	– 79	– 184	+ 23
5. County of St. George ...	(+ 2,615)	(– 935)	+ 3,978	+ 2,120	+ 2,005	+ 941	+ 4,059	+ 5,087
Wards of St. George:								
5A. Diego Martin	+ 378	– 14	+ 421	+ 484	+ 394	+ 119	+ 556	+ 1,084
5B. St. Anns	+ 1,258	+ 58	+ 2,325	+ 1,284	+ 1,351	+ 698	+ 2,477	+ 3,481
5C. Tacarigua	–	– 979	+ 902	+ 243	+ 171	+ 81	+ 505	+ 406
5D. Rest of St. George ...	+ 979	–	+ 330	+ 109	+ 89	+ 43	+ 521	+ 116
6. Caroni	– 902	– 330	–	– 576	– 434	– 433	– 151	+ 136
7. Victoria	– 243	– 109	+ 576	–	– 591	– 560	+ 260	+ 497
8. St. Patrick	– 171	– 89	+ 434	+ 591	–	– 50	+ 529	+ 774
9. Nariva/Mayaro	– 81	– 43	+ 433	+ 560	+ 50	–	+ 407	+ 174
10. St. Andrew/St. David ...	– 505	– 521	+ 151	– 260	– 529	– 407	–	+ 209
11. Tobago	– 406	– 116	– 136	– 497	– 774	– 174	– 209	–

TABLE 3L: LOCAL BORN INTERNAL MIGRANTS (BOTH SEXES) WHO MOVED INTO 1960 RESIDENCE IN THE PERIOD BEFORE 1946. NET MOVEMENT BETWEEN AREAS (PLACE OF BIRTH AND PLACE OF PRESENT RESIDENCE)

Administrative Area	Net internal migrants	Gain from (+) or Loss to (–)					
		Port of Spain	San Fernando	Arima	Wards of St. George		
					Total County	Diego Martin	St. Anns
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
1. Trinidad & Tobago							
2. Port of Spain	– 889	—	– 62	+ 394	– 4,122	– 886	– 3,554
3. San Fernando	+ 2,495	+ 62	—	+ 83	– 241	– 21	– 302
4. Arima	– 1,303	– 394	– 83	—	– 260	– 49	– 276
5. County of St. George	+ 9,277	+ 4,122	+ 241	+ 260	—	(+ 159)	(– 1,199)
Wards of St. George:							
5A. Diego Martin	+ 1,274	+ 886	+ 21	+ 49	– 159	—	– 257
5B. St. Anns	+ 9,212	+ 3,554	+ 302	+ 276	+ 1,199	+ 257	—
5C. Tacarigua	– 1,368	– 236	– 80	– 25	– 1,250	– 104	– 840
5D. Rest of St. George	+ 159	– 82	– 2	- 40	+ 210	+ 6	– 102
6. Caroni	– 4,156	– 616	– 421	+ 44	– 1,574	– 163	– 936
7. Victoria	– 4,693	– 367	– 1,709	+ 44	– 550	– 84	– 429
8. St. Patrick	+ 5,064	+ 315	+ 83	+ 159	+ 120	+ 66	– 223
9. Nariva/Mayaro	+ 1,140	– 109	– 109	+ 82	– 125	– 8	– 197
10. St. Andrew/St. David	– 1,730	– 817	– 146	+ 286	– 872	– 13	– 912
11. Tobago	– 5,205	– 1,307	– 289	– 49	– 1,653	– 275	– 1,184

TABLE 3L: LOCAL BORN INTERNAL MIGRANTS (BOTH SEXES) WHO MOVED INTO 1960 RESIDENCE IN THE PERIOD BEFORE 1946. NET MOVEMENT BETWEEN AREAS (PLACE OF BIRTH AND PLACE OF PRESENT RESIDENCE) – (Continued)

Administrative Area	Gain from (+) or Loss to (–)							Tobago
	St. George (Concluded)		Caroni	Victoria	St. Patrick	Nariva/ Mayaro	St. Andrew/ St. David	
	Tacarigua	Rest of St. George						
	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1. Trinidad & Tobago								
2. Port of Spain	+ 236	+ 82	+ 616	+ 367	– 315	+ 109	+ 817	+ 1,307
3. San Fernando	+ 80	+ 2	+ 421	+ 1,709	– 83	+ 109	+ 146	+ 289
4. Arima	+ 25	+ 40	– 44	– 44	– 159	– 82	– 286	+ 49
5. County of St. George	(+ 1,250)	(– 210)	+ 1,574	+ 550	– 120	+ 125	+ 872	+ 1,653
Wards of St. George:								
5A. Diego Martin	+ 104	– 6	+ 163	+ 84	– 66	+ 8	+ 13	+ 275
5B. St. Anns	+ 840	+ 102	+ 936	+ 429	+ 223	+ 197	+ 912	+ 1,184
5C. Tacarigua	—	– 306	+ 400	+ 15	– 246	– 73	– 32	+ 159
5D. Rest of St. George	+ 306	–	+ 75	+ 22	– 31	– 7	– 21	+ 35
6. Caroni	– 400	– 75	–	– 147	– 1,163	– 312	– 92	+ 125
7. Victoria	– 15	– 22	+ 147	–	– 1,903	– 680	0	+ 325
8. St. Patrick	+ 246	+ 31	+ 1,163	– 1,903	–	+ 91	+ 370	+ 860
9. Nariva/Mayaro	+ 73	+ 7	+ 312	+ 680	– 91	–	+ 349	+ 151
10. St. Andrew/St. David	+ 32	+ 21	+ 92	0	– 370	– 349	–	+ 446
11. Tobago	– 159	– 35	– 125	– 325	– 860	– 151	– 446	–

small net loss because of movement out mainly to St. George and also to St. Patrick and Nariva/Mayaro.

The outstanding movement, therefore, during this inter-censal period 1946–1960 was the movement of people into the County of St. George from all other parts of the country.

The figures for the period pre–1946 (Table 3) are considerably smaller. It will be remembered, however, that this is not direct evidence of negligible internal migration before 1946 since persons who moved before 1946 and moved again afterwards are shown as movers in the period 1946–1960 only. Also, of course, all persons under 15 years of age who were recorded as internal migrants at the 1960 census must necessarily have moved in the later period, while mortality could be higher among the older group who had moved before 1946.

It must be remembered, moreover, that while the figures of in-movement are actual records of persons moving into the given area during the specified period, the figures of our-movement shown against an administrative area reflect in fact the place of birth. The movement out from that area may, therefore, have taken place earlier to some intermediate area (s) from which the final movement has now taken place.

Among persons who moved before 1946 and did not move again in the period 1946–1960, again most of them moved into St. George which gained from all other areas. However most of the movement was into the ward of St. Anns with the gain to Diego Martin much smaller and more than offset by a loss from the ward of Tacarigua. Much of the loss from Tacarigua was within the County to St. Anns. The place of birth of the persons moving into St. George were primarily Port of Spain, Tobago and Caroni.

As in the later period already discussed, St. Patrick and Nariva/Mayaro also gained population through internal migration, the principal areas of origin being Victoria and Caroni and to a lesser extent St. Andrew/St, David and Tobago. Unlike the earlier period, however, San Fernando had a fairly substantial net in-movement mainly of persons born in Victoria and to a lesser extent in Caroni. It will be remembered that the movement into San Fernando had since reversed in the case of Victoria and virtually halted in the case of Caroni.

The 1960 Census also permits the derivation of a table showing the number of in- and out-migrants and the net movement of persons into or out of each area during the inter-censal period 1946–1960, and before 1946. From this table, which is not reproduced here, it is clear that the number of female movers exceeds the number of males in most instances. This relationship is shown in Table 3M.

Taking all movers throughout the country, there were 909 male per 1,000 female movers in the period 1946–1960 and 858 among those whose last movement was before 1946. For the various administrative areas, the only cases where the number of male movers exceeded the number of female were: (a) Diego Martin for pre–1946; (b) Other St. George; (c) Nariva/Mayaro; and (d) Tobago for 1946–1960. In each case this excess of males, occurs for in-migrants only.

The areas just mentioned were those with the highest sex ratios among in-migrants, while the areas with the lowest sex ratios were the three towns (Port of Spain, San Fernando and Arima) and the counties of Caroni and Victoria. In St. George, the county which received nearly one-half of the in-migrants, the sex ratio of in-migrants was 924 males per 1,000 females. The sex ratio of out-migrants is low (between 800 and 855) for the rural counties of Trinidad, and is highest for the three main towns and for Tobago (between 936 and 977).

The sex ratios of internal migrants do not necessarily indicate the relative propensity to move among the two sexes, since these will to some extent be affected by the sex ratios in the population of the administrative area as a whole. Table 3M therefore also shows the rate of in-and out-migration per 1,000 population. This confirms that for the country as a whole, and for most administrative areas, there are more movers among females than among males. The exceptions are: (a) in-migrants to Tobago; and (b) out-migrants from Port of Spain and San Fernando. In both of these cases the migration rate was higher for males. The rates were virtually the same for the two sexes in the case of the town of Arima (out-migrants) and Diego Martin (in-migrants).

Internal Migrants – 1970 Census

The number of persons born in Trinidad & Tobago who were not residing in the administrative area of their birth at the time of the 1970 Census, was only slightly higher than the number in 1960: 219,400 as compared with 207,200 in 1960. In 1970, 46 per cent of these movers were male, which was virtually the same as in 1960 (47 per cent). As a proportion of the total local-born population, 24 per cent were not residing in the area of their birth in 1970 as compared with 25 per cent in 1960. On this basis, therefore, there is no evidence of any change in the volume of movement.

TABLE 3M: (a) SEX RATIOS AND (b) MIGRANT RATES FOR IN–MIGRANTS AND OUT–MIGRANTS BY PERIOD OF MOVEMENT (1960 CENSUS)

Place of residence & period of movement	Sex Ratios		Rates/000 population			
	Number of in-migrants	Number of out-migrants	In-migrants		Out-migrants	
			Male	Female	Male	Female
	(1)	(2)	(3)	(4)	(5)	(6)
1. Trinidad & Tobago						
1946–1960	909	909	171	186		
Pre–1946	858	858	66	76		
Total	894	894	238	263		
2. Port of Spain						
1946–1960	855	987	111	114	405	360
Pre–1946	722	936	76	93	97	91
Total	795	977	188	207	502	452
3. San Fernando ...						
1946–1960	834	962	215	239	293	283
Pre–1946	797	911	132	153	79	81
Total	819	951	346	392	373	363
4. Arima						
1946–1960	900	944	208	216	436	433
Pre–1946	832	921	98	110	220	224
Total	877	936	305	326	656	657
5. County of St. George						
1946–1960	934	898	277	292	97	106
Pre–1946	887	794	72	80	36	44
Total	924	868	350	372	133	150

TABLE 3M: (a) SEX RATIOS AND (b) MIGRANT RATES FOR IN–MIGRANTS AND OUT–MIGRANTS BY PERIOD OF MOVEMENT (1960 CENSUS) –(Continued)

Place of residence & period of movement	Sex Ratios		Rates/000 population			
	Number of in-migrants	Number of out-migrants	In-migrants		Out-migrants	
			Male	Female	Male	Female
	(7)	(8)	(9)	(10)	(11)	(12)
Wards of St. George:						
5A. Diego Martin						
1946–1960	945	952	329	332	75	75
Pre–1946	1,025	761	56	52	26	33
Total	956	894	385	384	101	108
5B. St. Anns						
1946–1960	917	912	302	318	68	72
Pre–1946	900	806	89	95	14	17
Total	913	892	391	413	83	90
5C. Tacarigua ...						
1946–1960	942	886	201	214	161	182
Pre–1946	743	796	54	73	74	73
Total	891	855	255	287	235	275
5D. Rest of St. George						
1946–1960	1,010	820	270	290	109	145
Pre–1946	1,030	814	77	81	60	79
Total	1,014	818	347	371	169	224
6. Caroni						
1946–1960	790	865	92	119	151	179
Pre–1946	709	838	39	57	84	103
Total	764	855	131	176	235	282

TABLE 3M: SEX RATIOS (b) MIGRANT RATES FOR IN–MIGRANTS AND OUT–MIGRANTS BY PERIOD OF MOVEMENT (1960 CENSUS) (CONTINUED)

	Place of Residence and Place of Movement	Sex Ratios		Rates/000 Population			
		No. of In-Migrants	No. of Out-Migrants	In–Migrants		Out–Migrants	
				Male	Female	Male	Female
		(1)	(2)	(3)	(4)	(5)	(6)
7.	Victoria						
	1946–1960	870	834	111	131	113	138
	Pre–1946	756	837	32	44	66	81
	Total	842	835	143	174	179	219
8.	St. Patrick						
	1946–1960	920	825	125	139	107	133
	Pre–1960	999	729	82	84	30	42
	Total	950	801	206	223	137	175
9.	Nariva/Mayaro						
	1946–1960	1,051	835	230	240	182	240
	Pre–1946	1,161	839	120	114	60	78
	Total	1,090	836	350	354	241	319
10.	St. Andrew/St. David						
	1946–1960	942	906	139	154	260	300
	Pre–1946	958	862	80	88	116	141
	Total	948	892	219	242	376	441
11.	Tobago						
	1946–1960	1,071	943	67	61	291	302
	Pre–1946	966	989	14	14	171	169
	Total	1,052	960	80	75	462	471

TABLE 3N. NET INTERNAL MIGRANTS BY SEX 1960 AND 1970 CENSUS

	Both Sexes		Male		Female	
	1960	1970	1960	1970	1960	1970
	(1)	(2)	(3)	(4)	(5)	(6)
Port of Spain	− 26,070	− 41,630	− 13,830	− 20,500	− 12,240	− 21,130
San Fernando	+ 90	− 8,320	− 500	− 4,100	+ 590	− 4,220
Arima	− 3,740	− 2,660	− 1,860	− 1,310	− 1,880	− 1,360
St. George	+ 56,280	+ 73,810	+ 27,590	+ 34,840	+ 28,690	+ 38,970
Wards of St. George:—						
Diego Martin	+ 14,350	+ 24,520	+ 7,110	+ 11,550	+ 7,250	+ 12,970
St. Anns	+ 38,200	+ 36,020	+ 18,300	+ 16,860	+ 19,900	+ 19,170
Tacarigua	+ 1,070	+ 10,690	+ 680	+ 4,770	+ 390	+ 5,920
Rest of St. George	+ 2,660	+ 2,570	+ 1,510	+ 1,660	+ 1,150	+ 910
Caroni	− 9,490	− 4,320	− 4,760	− 1,960	− 4,730	− 2,360
Victoria	− 5,330	+ 4,690	− 2,390	+ 1,760	− 2,940	+ 2,930
St. Patrick	+ 6,390	− 2,700	+ 3,830	− 570	+ 2,560	− 2,130
Nariva/Mayaro	+ 1,720	− 3,500	+ 1,330	− 1,100	+ 400	− 2,400
St. Andrew/St. David	− 6,880	− 5,000	− 3,110	− 2,100	− 3,770	− 2,900
Tobago	− 12,970	− 8,760	− 6,290	− 4,150	− 6,680	− 4,620

Table 3N compares the net internal migration for the various administrative areas for 1960 and 1970. The principal changes which have occured in the decade are:[7]

a. The net out-migration from Port of Spain has increased considerably;

b. St. Patrick, Nariva/Mayaro, and San Fernando, all of which had a net in-migration in 1960 (very small in the case of San Fernando), had a net loss through migration in 1970. In the case of St.Patrick this reflects the continued decline in employment in the petroleum industry, while in San Fernando it is the result of the suburban movement to Victoria;

c. Victoria has joined St. George in registering a gain as a result of the movement to the suburban areas. In the case of St. George, in the wards of Diego Martin and Tacarigua, the gain in the last decade exceeds that of the preceding inter-censal period as derived from the 1960 Census.

d. The situation in Tobago has improved in the sense that the net out-migration has declined appreciably.

Table 3P shows, for each administrative area, the number of persons it gained or lost to each other administrative area in the interval 1961–70 which roughly approximates the last inter-censal interval. This shows a considerable loss of over 27,000 persons from Port of Spain, mostly to the County of St. George. Appreciable losses were also experienced by San-Fernando (7,000) and St. Patrick (5,500), both of which lost somewhat more than half of their net emigrants to St. George, but a large number also to Victoria. This latter county is the only one, except St. George, which gained population through internal migration in the interval. The remaining areas each lost in the vicinity of 2,000 to 4,000 persons except Caroni which had a net loss of under 800. The total gain to the County of St. George was approaching 50,000 while that to Victoria was just over 4,000.

[7] In a comparison of the situation at 1970 with that at the 1960 Census, one other aspect that is instructive is the change in the number of internal migrants in to or out of an administrative area whose period of movement is given as a particular interval. For example, the number of persons born outside of Port of Spain but living in that city, who had moved there in the interval 1946–60, was 10,600 at the 1960 Census but only 3,400 at the 1970 Census. It is outside the scope of the present study to try to trace this change, but as indicated earlier, the reduction is explained by the fact that in the period 1960–70 some of the 10,600 persons recorded at the 1960 Census would have moved again within the country (and be recorded in 1970 as movers in the interval 1961–70), while others would have left the country or died since 1960.

TABLE 3P: LOCAL BORN INTERNAL MIGRANTS (BOTH SEXES) WHO MOVED INTO 1970 RESIDENCE IN THE PERIOD 1961–1970 SHOWING NET MOVEMENT BETWEEN AREAS: (PLACE OF BIRTH AND PLACE OF PRESENT RESIDENCE)

Administrative Area	Net internal migrants	Gain from (+) or Loss to (–)			Wards of St. George		
		Port of Spain	San Fernando	Arima	Total county	Diego Martin	St. Anns
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Port of Spain	– 27,639		+ 107	– 108	– 24,738	– 10,967	– 10,532
San Fernando	– 7,076	– 107		– 47	– 4,621	– 1,266	– 1,994
Arima	– 1,713	+ 108	+ 47		– 1,741	– 298	– 301
County of St. George							
Wards of St. George:							
Diego Martin	+ 17,368	+ 10,967	+ 1,266	+ 298	+ 1,270		+ 676
St. Anns	+ 19,113	+ 10,532	+ 1,994	+ 301	– 917	– 676	
Tacarigua	+ 7,329	+ 2,556	+ 1,115	+ 231	– 339	– 275	+ 432
Rest of St. George	+ 3,503	+ 683	+ 246	+ 911	– 14	– 319	– 191
Caroni	– 790	+ 742	+ 377	+ 46	– 2,367	– 335	– 782
Victoria	+ 4,180	+ 1,092	+ 2,175	+ 42	– 1,809	– 499	– 766
St. Patrick	– 5,593	+ 389	– 298	– 2	– 3,572	– 804	– 1,740
Nariva/Mayaro	– 1,976	+ 40	– 126	+ 17	– 1,423	– 271	– 581
St. Andrew/St. David	– 2,914	+ 227	+ 68	+ 1	– 3,240	– 550	– 1,189
Tobago	– 3,792	+ 410	+ 105	+ 23	– 3,802	– 1,108	– 2,145
Total	+ 51,493	+ 27,639	+ 7,076	+ 1,713	– 47,313	– 17,368	– 19,113

TABLE 3P: LOCAL BORN INTERNAL MIGRANTS (BOTH SEXES) WHO MOVED INTO 1970 RESIDENCE IN THE PERIOD 1961–1970 SHOWING NET MOVEMENT BETWEEN AREAS: (PLACE OF BIRTH AND PLACE OF PRESENT RESIDENCE)—(Continued)

Administrative Area	St. George (Concluded)		Gain from (+) or Loss to (–)					
	Tacarigua	Rest of St. George	Caroni	Victoria	St. Patrick	Nariva/ Mayaro	St. Andrew/ St. David	Tobago
	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Port of Spain	– 2,556	– 683	– 742	– 1,092	– 389	– 40	– 227	– 410
San Fernando	– 1,115	– 246	– 377	– 2,175	+ 298	+ 126	– 68	– 105
Arima	– 231	– 911	– 46	– 42	+ 2	– 17	– 1	– 23
County of St. George								
Wards of St. George:								
Diego Martin	+ 275	+ 319	+ 335	+ 449	+ 804	+ 271	+ 550	+ 1,108
St. Anns	– 432	+ 191	+ 782	+ 766	+ 1,740	+ 581	+ 1,189	+ 2,145
Tacarigua		– 496	+ 1,022	+ 520	+ 752	+ 414	+ 626	+ 432
Rest of St. George	+ 496		+ 228	+ 24	+ 276	+ 157	+ 875	+ 117
Caroni	– 1,022	– 228		– 227	+ 487	+ 12	+ 68	+ 72
Victoria	– 520	– 24	+ 227		+ 1,496	+ 439	+ 177	+ 341
St. Patrick	– 752	– 276	– 487	– 1,496		– 129	– 12	+ 14
Nariva/Mayaro	– 414	– 157	– 12	– 439	+ 129		– 199	+ 37
St. Andrew/St. David	– 626	– 875	– 68	– 177	+ 12	+ 199		+ 64
Tobago	– 432	– 117	– 72	– 341	– 14	– 37	– 64	
Total	– 7,329	– 3,503	+ 790	– 4,180	+ 5,593	+ 1,976	+ 2,914	+ 3,792

TABLE 3Q: AGE DISTRIBUTION AND SEX RATIOS OF THE TOTAL POPULATION AND INTERNAL MIGRANTS —1970 CENSUS

	Age (Years)											
	0–14	15–19	20–24	25–29	30–34	35–39	40–44	45–49	50–54	55–59	60–64	65+
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Proportions in each Age Group												
Total Population	42	11	9	6	5	5	4	4	4	3	2	4
Internal Migrants	21	10	11	9	8	7	7	7	6	5	4	6
Proportions in each Age Group for persons 20 years old and over only												
Total Population	—	—	12	13	11	10	9	9	8	6	5	10
Internal Migrants			15	13	12	11	10	10	8	7	5	9
Sex Ratios (Males per 1,000 Females)												
Total Population	1,008	960	956	945	933	914	944	1,010	1,059	1,069	1,010	771
Internal Migrants	982	803	690	739	769	791	829	881	943	993	947	738

TABLE 3R: TOTAL POPULATION AND INTERNAL MIGRANTS 15 YEARS OLD AND OVER BY AGE AND EDUCATIONAL ATTAINMENT (PROPORTIONS)

	Age (Years)										
	15–19	20–24	25–29	30–34	35–39	40–44	45–49	50–54	55–59	60–64	65+	Total
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Pre-Primary and No Education												
Total Population	1	2	3	5	8	11	14	15	18	18	23	8
Internal Migrants	1	2	2	4	6	9	11	13	15	15	19	7
Primary												
Total Population	51	61	69	74	73	74	74	75	73	73	70	67
Internal Migrants	50	59	64	68	68	70	72	72	71	72	70	65
Secondary and Over												
Total Population	48	37	28	21	19	15	12	10	9	9	7	25
Internal Migrants	49	39	34	28	26	21	17	15	14	13	11	27

Some preliminary tabulations from the 1970 Census permit a comparison of the internal migrants with the rest of the population for a few characteristics. The figures below compare the persons classified as internal migrants at the time of the 1970 census with the total population (including persons born outside of the country). Relatively few of the internal migrants are young persons under 20 years of age. For example, while 53 per cent of the total population were under 20 years old, the proportion among internal migrants was only 31 per cent. Moreover, a breakdown by age-group of persons 20 years old and over (Table 3Q) shows that for the age groups covering persons 25 years and over the proportions are virtually the same for the migrants and the total population.

The sex ratios (Table 3Q) show that in each age group men comprise a relatively small proportion of internal migrants; the differential is least for young persons under 15 years old and persons 65 years and over.

The preliminary data on the educational attainment of internal migrants suggests that migrants are, on average, slightly better educated than the population as a whole. The differential is not appreciable, however. (Table 3R).

Summary

Information about the population distribution according to the present-day administrative areas is available from 1921. The population of the two main towns – Port of Spain and San Fernando – increased appreciably between 1921 and 1946, levelled of (especially Port of Spain) in the period 1946–60, and declined in the last inter-censal interval 1960–70. The population of the County of St. George, which geographically includes the City of Port of Spain, grew exceedingly rapidly in the period 1946–60 and continued to grow in the decade 1960–70. In this last inter-censal interval, however, its rate of growth was not outstanding. Most of the other administrative areas have gained population fairly steadily since 1921.

The rapid rate of growth of St. George in the period 1946–1960 and the growth of the County of Victoria in the decade 1960–1970 reflect the growth of the "urban" population outside of the limits of the legal municipal boundaries of Port of Spain and San Fernando respectively.

Internal migration has played a most important part in the redistribution of population. This has been particularly marked in the movement into St. George from Port of Spain and from other areas, and into Victoria from San Fernando, Port of Spain and St. Patrick. There has been a significant movement of persons to Trinidad from Tobago, but this has not been outstandingly large in the last inter-censal interval.

Preliminary tabulations of a few characteristics of internal migrants indicate that these include relatively few young persons under 20 years old, relatively more women than men, and persons of a very slightly higher average education than the total population.

CHAPTER 4

POPULATION COMPOSITION

Introduction

The long and varied history of migration into the country, particularly into the island of Trinidad, has resulted in the existing population being extremely heterogeneous in many respects. As regards population characteristics, the effects of this population history most commonly commented on are the variety of ethnic groups and religions in the country today. But the present level of, as well as past trends in most of the other socio-demographic characteristics dealt with in this monograph have also been greatly influenced by the country's population history, particularly its migration history.

Country of Birth

An obvious result of the continuous stream of immigration has been that the foreign-born population has always been a significant, though now declining, proportion of the total. Thus, at the censuses held in the nineteenth century persons born in Trinidad comprised only about 55 per cent of the population of that island, and the immigrant population 45 per cent.[1] In the present century, with the declining importance of immigration in relation to total population growth, the proportion of immigrants in the census population has fallen steadily to 22 per cent in 1931.

Of the persons not born in Trinidad, persons born in the British West Indies (including Tobago) were the largest group at the censuses of 1844 and 1851 and at the censuses from 1911 onwards. In the intervening censuses of 1861 to 1901 persons born in India were the largest immigrant group, these comprising 20–23 per cent of the total population at each of these censuses. It would be noted, however, that at the censuses of 1901 and 1911 these two groups were almost identical in number. (Table 4A.) However, the number of persons born in India reached its maximum of 51,300 in 1911 and since then has declined rapidly so that the number now is very negligible. On the other hand, the number of

[1] Joint censuses with Tobago were not held until 1901. But there was not indenture immigration in to Tobago; instead there has been significant movement of persons born in Tobago to Trinidad, and these are included among the immigrants in the Trinidad population.

DIAGRAM 4.1. THE POPULATION OF TRINIDAD: TRINIDAD–BORN AND IMMIGRANTS 1844 – 1931

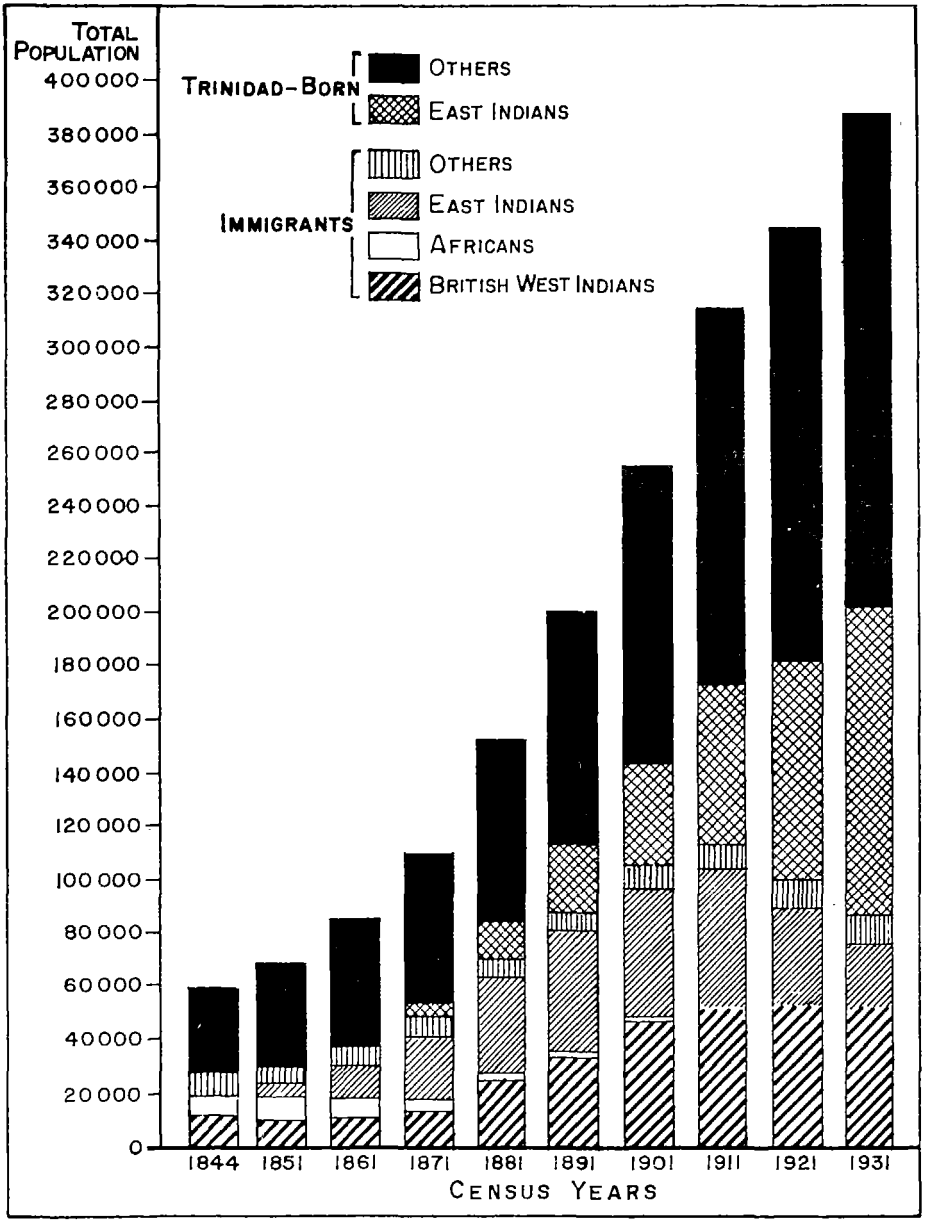


TABLE 4A. IMMIGRANTS AND LOCAL-BORN, TRINIDAD, 1861–1931[1]

Year	Immigrants							Local-born			Total population
	British West Indians[2]	Africans	East Indians[3]	Chinese	Venezuelans	Others[4]	Total	East Indians	Others	Total	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
1844	12,106	7,287	–	–	..	7,294	26,687	–	33,128	33,128	59,815[5]
1851	10,800	8,010	3,993	–	..	5,884	28,687	...	..	39,913	68,600
1861	11,716	6,035	13,488	461	..	5,802	37,502	..	..	46,936	84,438
1871	13,707	4,256	22,880	1,400	2,195	3,963	48,401	4,545	56,692	61,237	109,638
1881	24,047	3,035	36,020	1,266	2,277	4,376	71,021	12,800	69,307	82,107	153,128
1891	33,071	2,055	45,577	1,066	2,955	3,782	88,446	24,641	86,941	111,582	200,028
1901	46,748	1,080	47,669	832	3,537	4,844	104,710	38,714	111,724	150,438	255,148
1911	52,199	395	51,310[6]	1,113	3,708	4,570	113,215	59,525	140,050	199,575	312,790
1921	51,369	147	37,929[7]	1,334	4,127	5,334	100,240	84,009	158,274	242,283	342,523
1931	51,717	153	23,936[8]	2,027	4,236	5,363	87,432	114,851	185,142	299,993	387,425

[1] See *Copies of the Last Census in each of the West Indian Islands*, p. 26; *Tables Compiled from Census Papers 1861 and 1871*, p. 2; *Census Report 1881*, p. 4; *1891*, p. 6; pp. 18–19; *1911*; pp. 14, 38–41; *1921*, pp. 56–59; *1931*; pp. 7, 16a, 23, 29, 31.

[2] Including persons born in Tobago and 1844–81 also persons born in other British territories. The former are numerous (in 1891–1931: 3,307, 5,334, 5,956, 6,110 and 6,941 respectively); the latter are few (1891 only 109). Figures exclude immigrants of Indian parentage (see footnotes 6, 7 and 8).

[3] I consider it most likely that the figures for 1851 and 1861 include the East Indians born in Trinidad though according to *Census Report 1931*, p. 31, they comprise only persons born in India.

[4] Including all persons with birthplace 'not described'.

[5] Excluding 504 military.

[6] 50,522 born in India, 659 born in British West Indies (excluding Trinidad), and 129 born in West Indies.

[7] 37,221 born in India, 631 born in British West Indies (excluding Trinidad), and 77 born in Foreign West Indies.

[8] 23,200 born in India, 606 born in British West Indies (excluding Trinidad), and 130 born in Foreign West Indies.

Source: R.R. Kuczynski: *Demographic Survey of the British Colonial Empire.* Volume III.

TABLE 4B: IMMIGRANTS AND LOCAL –BORN, TRINIDAD AND TOBAGO, 1891–1970[1]

Year	Immigrants									Local-born			
	Barbados	St. Kitts/ Nevis	Grenada	St. Vincent	Other British West Indies	Total British West Indies	East Indians	Others[2]	Total	East Indians	Others	Total	Total Population
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1891 ...	..	..	..	..	..	36,[illegible]99	45,594	10,074	86,357	24,648	107,376	132,024	218,381
1901 ...	..	..	..	..	..	42,375	47,677	10,496	100,546	38,714	134,639	173,353	273,899
1911 ...	19,937	2,051	8,761	10,400	5,991	47,140	51,376[3]	9,959	108,475	59,535	165,529	225,064	333,539
1921 ...	16,744	1,486	12,838	10,113	5.234	46,415	38,051[4]	11,094	99,560	84,066	186,287	270,353	365,913
1931 ...	13,823	1,003	14,949	10,425	5,571	45,771	24,014[5]	11,914	81,699	114,946	216,138	331,084	412,783
1946 ...	12,384	994	23,446	11,392	7,893	56,109	13,173[6]	9,910	79,192	182,574	296,204	478,778	557,970
1960 ...	N.A.	N.A.	N.A.	N.A.	N.A.	62,294	9,942	16,219	83,455	—	—	744,502	827,957
1970[7] ...	5,437	381	21,980	12,522	6,287[7]	46,607	—	13,888	60,495	—	—	870,576	931,071

[1] See *Census Report 1901*, p. 21; *1911*, p. 14; *1921*, pp. 56–59; *1931*, p. 16a; *West Indian Census 1946, Part G*, pp. 48–49.

[2] Including all persons with birthplace 'not described'.

[3] 50,585 born in India, 662 born in British West Indies (excluding Trinidad and Tobago), and 129 born in Foreign West Indies.

[4] 37,341 born in India, 633 born in British West Indies (excluding Trinidad and Tobago), and 77 born in Foreign West Indies.

[5] 23,255 born in India, 629 born in British West Indies (excluding Trinidad and Tobago), and 130 born in Foreign West Indies.

[6] 11,457 born in India, Burma, and Ceylon; 1,716 elsewhere.

[7] Of which: Guyana 2,294; St. Lucia 1,462; Dominica 671; Jamaica 519; Antigua 455, and Others 886.

Source: 1891–1946 R.R. Kucsynski: Demographic Survey of the British Colonial Empire, Vol. III.
1960 Census Report.
1970 Preliminary Census Tabulations.

persons born in the Commonwealth Caribbean (formerly British West Indies) has continued to grow slowly.

Apart from these two major groups of immigrants, since 1871 there have also been small numbers of persons born in China and in Venezuela as well as "Other" immigrants (including persons born in Britain). (Diagram 4.1).

For Trinidad and Tobago taken together (Table 4B) at the census of population in 1911, two-thirds of the total population were born in the country and one-third were foreign born. The proportion foreign born however fell steadily to 10 per cent in 1960 and 6 per cent in 1970. In 1911 there were about 3,000 more persons born in India than in the British West Indies, but thereafter, with the end of indenture immigration, the number born in India fell steadily and the proportion fell to only 2 per cent of the total in 1946 and has been negligible since. Immigrants from the British West Indies as a proportion of total population, on the other hand, fell slowly, and with the influx during the Second World War, was still 10 per cent in 1946, but fell to 8 per cent in 1960 and 5 per cent in 1970. "Other" immigrants comprised about 3 per cent of the total up to 1931 and 2 per cent or less from 1946 onwards.

Of the persons born in the British West Indies, Barbadians comprised the largest number up to 1931, the number decreasing steadily from 19,900 in 1911 to 12,400 in 1946. Grenadians, on the other hand, totalled only 8,800 in 1911 but this number increased steadily to 23,400 in 1946; since 1931 Grenadians comprise the largest group of persons born in the British West Indies. The number of persons born in St.Vincent has remained fairly steady, being 10,400 in 1911 and 11,400 in 1946.

Table 4C shows the period of entry and age at the time of entry for the foreign born population residing in the country in 1960. At that time, of the 83,500 persons born outside of Trinidad and Tobago, 35 per cent reported that they had come to reside in the country before they were 15 years old, and a further 61 per cent were between 15 and 44 years of age when they first came to reside here. Only 4 per cent, therefore, had migrated after the age of 44 years. About 33,000 of the foreign born (nearly 40 per cent) had come to Trinidad and Tobago to reside during the inter-censal perod 1946–1960, nearly 10,000 of these in the period 1959–April 1960.

The preliminary data from the 1970 Census do not give so much detail but they do show, again, a break-down of persons from within the Commonwealth Caribbean by place of birth. The total number of foreign born persons fell from 83,500 in 1960 to 60,500 in 1970, and

there was also a fall in the number from the rest of the Commonwealth Caribbean and from outside of the Region. The number of residents who were born in the rest of the Commonwealth Caribbean was 46,600 of whom 22,000 were born in Grenada, 12,500 in St. Vincent and 5,400 in Barbados.

TABLE 4C: FOREIGN BORN POPULATION IN 1960 BY PERIOD OF ENTRY AND AGE AT TIME OF ENTRY – 1960 CENSUS

Period of entry	Age at time of entry				
	Total	Under 15 years	15–44 years	45–64 years	65+ years
	(1)	(2)	(3)	(4)	(5)
Total	83,455	29,165	50,770	2,920	600
Pre 1940	36,110	15,847	19,869	381	13
1940–1945 ...	14,457	3,152	10,905	375	25
1946–1950 ...	7,377	2,405	4,591	325	56
1951–1958 ...	15,877	4,899	9,783	962	233
1959–1960 ...	9,634	2,862	5,622	877	273

At the Census of 1970, of the 60,500 foreign born, there were 29,300 males and 31,200 females. More than one half of the total (30,800) had been resident in the country before 1946, while 22 per cent of them (13,400) had come to reside in the country in the period 1961–1970. The number of foreign born coming in to the country in the period 1961–1970 who were residing there at the end of that period was, therefore only slightly more than one-half of the number who had come in during the preceding decade and were resident at the time of the 1960 Census (25,500).

Ethnic Origin/Race

Growth of Ethnic Groups

Since immigrants came (or were brought) from so many different parts of the world, the population comprises a variety of ethnic or racial groups. Nevertheless, the use of race or ethnic origin in demographic analysis in Trinidad and Tobago is considered by many to be undesirable. Braithwaite speaks for many when he says: "That racial splits in the society are in danger of occurring, is well known. Demographic classifications of 'race' would only seem to accentuate this split, and beneficial results are hard to identify". But a refusal to analyse these "racial" differences will not make the danger of "splits" go away; instead, it could engender problems by leaving the field open for biased, non-scientific and

partisan trouble-makers. Braithwaite's warning does, however, make it clear that the onus is on the demographer not to so present his data as to imply that differences are "racial" when in fact they more properly relate to differences in religious belief, place of residence (urban-rural), level of education and so forth. To this end, further information in this section, and elsewhere in this study, seeks to show the extent to which observed "racial" differences, particularly between persons of Indian and African origin, are so related.

The first census at which a question on race was asked was that of 1946. Prior to that date, the census reports distinguished between the East Indian population and the remainder, called the General population. The availability of separate information about the East Indian population, and more specifically about immigrants from India, in the census and other official reports, stems partly from anxiety lest the abuses of slavery be repeated, and partly from the fact that the indenture immigrants was at considerable public expense.

Table 4D shows the growth of the Indian population from 1851 to 1946. This ethnic group increased in numbers and also as a proportion of the total population up to 1891, by which year they comprised one-third of the total population. In the period 1891–1931, while continuing

TABLE 4D: EAST INDIAN POPULATION, 1851–1946

Census year	East Indian population	Increase since previous census		Proportion of East Indians to total*
		No.	Per cent	
1851	3,993	–	–	4.81
1861	13,488	9,495	237.79	13.51
1871	27,425	13,937	103.33	21.65
1881	48,820	21,395	78.01	28.52
1891	70,218	21,398	43.83	32.15
1901	86,383	16,165	23.02	31.54
1911	110,911	24,528	28.39	33.25
1921	121,420	10,509	9.48	33.18
1931	138,667	17,247	14.20	33.59
1946	**195,747	57,080	41.16	35.09

*Inclusive of Tobago
**Excluding East Indian Creoles.

Source: West Indian Census, 1946, Vol. II Part G. Ch. III. Table B.

to grow in absolute numbers, its rate of growth was about the same as that of the total population so that Indians remained at about one-third of the total. By 1946, however, the Indian population had again grown more rapidly than the rest of the population, and was now 35 per cent of the total. The increase of 1946 over 1931 was even greater than indicated since prior to the Census of 1946, persons born in Trinidad were classified as Indian if either their father or their mother were Indian; from 1946 such persons have not been classified as Indian but as "Mixed".

From 1871, the availability of inter-censal vital statistics enable rough estimates[2] to be made of the relative contribution of natural increase and migration to the growth of the Indian and the General Populations. The number of Indian immigrants fell continuously from 1871 to 1911, though, as a proportion of total immigration it remained over 50 per cent for all periods except 1881–1901. Despite the decline, the growth of the Indian population was due principally to immigration up to 1901. In the decade 1901–1911 natural increase was, for the first time, an important component of growth of the Indian population, being responsible for 43 per cent of the growth. Since 1921 the growth of the Indian population has been entirely as a result of natural increase.

Table 4E shows the crude birth and death rates and the rate of natural increase for the period 1921–1945 for Indians and others. The figures are based on the published rates in the Registrar-General's Reports obtained by classifying births as Indian according to the name of the parent and deaths according to the name of the deceased. Despite the evident drawbacks of this rough method it is clear that at the beginning of the period the birth and death rates as well as the rate of natural increase of Indians was higher than those of the rest of the population. During the period death rates fell considerably, the Indian rate falling more rapidly, so that by the end of the period there was little difference in death rates between Indians and the others. The birth rate of Indians increased very appreciably after 1935 and by the end of the period the birth rate of Indians had risen very much more than that of the rest of the population. As a result, while the natural increase for "others" went up from 10.2 to 16.6 per thousand of population, for Indians it went up from 15.2 to 29.7.

At the population censuses of 1946, 1960 and 1970, the population has been classified by "race". Doubts have been expressed about the usefulness or even the meaningfulness of the classifications used in these

[2]Information on ethnic origin was not required at the registration of births and deaths, and the identification of Indians in the vital statistics is based on the names of the persons concerned only. According to the 1946 Census Report, "The method is open to severe criticism, but nevertheless it seems to give results not far from the truth". *(West Indian Census,* 1946, Vol. II, Part G, Para. 6).

censuses. Braithwaite (1957) points out that the difficulties arise because "what is really attempted is a classification of social groups, but a biological criterion is used", and in addition the classifications are a mixture of self-classification and enumerator-classification. For these and related reasons the data by race for the various censuses are not consistent, particularly for the "Mixed" group, and trends indicated by the census figures could be misleading.

TABLE 4E: BIRTH, DEATH AND NATURAL INCREASE RATES, PER 1,000 OF POPULATION, 1921–1945

Period	Birth rate		Death rate		Natural increase	
	East Indian	Others	East Indian	Others	East Indian	Others
	(1)	(2)	(3)	(4)	(5)	(6)
1921–25	38.88	30.88	23.81	20.59	15.07	10.22
1926–30	38.07	27.48	21.50	18.96	16.57	8.54
1931–35 ...	36.90	27.30	20.09	17.76	16.81	9.33
1936–40	40.64	28.38	17.27	15.67	23.37	12.60
1941–45	45.24	32.44	15.58	15.99	29.66	16.59

Source: West Indian Census, 1946, Part G. Chapter III, Table D.

TABLE 4F: POPULATION (NUMBERS AND PROPORTIONS) AND INTER-CENSAL RATES OF GROWTH FOR ETHNIC GROUPS, 1946–1970

Ethnic group	Population						Inter-censal rates of growth	
	Numbers			Proportions				
	1946	1960	1970	1946	1960	1970	1946–60	1960–70
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
African Descent ...	261,845	358,588	398,765	46.9	43.3	42.8	2.3	1.1
Indian Descent ...	195,747	301,946	373,538	35.1	36.5	40.1	3.1	2.1
Mixed* ...	78,775	134,749	133,706	14.1	16.3	14.4	3.9	–
European Descent	15,283	20,202	11,383	2.7	2.4	1.2	2.0	– 5.6
Chinese Descent ...	5,641	8,361	7,962	1.0	1.0	0.9	2.9	– 4.7
Other	915	3,820	4,332	0.1	0.5	0.5	) 10.3**	3.4**
Not Stated ...	124	291	1,385	/#	/#	/#	)	

*Portuguese (1,802 in 1970) are included with "Mixed" to maintain comparability with earlier censuses.

**Includes "Not Stated".

/#"Not Stated" excluded from Proportions.

Despite these undoubted shortcomings, the census tabulations by race/ethnic origin do give some indication of the present situation and of major changes. Table 4F shows the number and proportions of each major ethnic group at each of the three censuses since 1946. In 1946, persons classified as being of African descent comprised 47 per cent of the total and those of Indian descent 35 per cent, while persons of "Mixed" descent comprised 14 per cent. The remaining small groups, including those of European and Chinese descent totalled only 4 per cent.

By 1960, with its higher rate of growth, the population of Indian descent increased slightly as a proportion of the total, while the population of African descent fell to 43 per cent. The highest rate of growth was among the Mixed group which increased to 16 per cent. This no doubt reflects the inconsistency of measurement of this group, a point stressed by Braithwaite (1957). In addition, however, this group would be expected to grow somewhat more rapidly since its numbers are increased both by the addition of children of parents, one or both of whom are themselves "Mixed", and by the addition of children of mixed marriages between parents of different ethnic groups.

The significant change between 1960 and 1970 has been the appreciable increase in the group of Indian descent who were now only slightly behind the proportion of those of African descent (40 per cent as against 43 per cent). On the other hand, all other ethnic groups, including those of "Mixed" descent declined not only as a proportion of the total but also in absolute numbers. If, as stated earlier, there was an under-enumeration, and possibly also a temporary emigration from the country at the time of the 1970 census because of the political and social unrest, then one would expect that is was mainly the non-Indian population of the urban centres that was affected.[3] This appears to be supported by data from a 1973 survey which showed that of men 15–64 years of age, 50 per cent were of African descent and 34 per cent of Indian descent, as compared with similar figures from the 1970 Census of 44 per cent and 40 per cent respectively. (Norma Abdulah 1973).[4]

[3]The disturbances took the form of "black power" demonstrations and related activity which were hostile to the non–African and non–Indian groups. Temporary emigrants would therefore have been mostly from the "Mixed" and other smaller ethnic groups, while persons likely to be omitted from enumeration would be those of African descent. To balance this latter, it is likely that in the circumstances at the time some persons who would otherwise classify themselves as "Mixed" or some other minority group would have been tempted to identify with the "blacks" and hence be classified in this census as of African descent. As regards the possibility of significant temporary movement out of Trinidad by residents of the country, it must be pointed out that the international travel statistics do not support the view that this took place in the first quarter of 1970.

[4]Significantly, in a similar survey carried out among females in October-November 1970 the rate of effective response was considerably lower than in the more recent survey (79 per cent as compared with 91 per cent at the household level); and this survey showed an even higher proportion of persons of Indian origin than the Census (47 per cent of women 15–44 years old were found as of Indian descent as compared with only 39 per cent of African descent).

But apart from any imbalance in the census figures arising from this peculiar situation at census time, it is clear, as shown in Chapter 2, that there was heavy net emigration from Trinidad and Tobago in the years preceding the census. The large increase in the proportion of Indians at the 1970 census could, therefore, be in some measure the result of differential rates of emigration with higher rates of emigration among the non-Indian groups. However, while differential emigration and the under-enumeration of non-Indians may account for some part of the faster rate of growth of the population of Indian descent, the basic reason is that the rate of natural increase of this group continues to be appreciably higher than that of the rest of the population[5] because of the continued higher rate of fertility.

Age Distribution

The Age distributions of persons of African descent, of Indian descent and of Other Ethnic groups are compared in Table 4G and in Diagram 4. The proportion of the population under 15 years of age has remained higher among the population of Indian descent than that of African descent throughout the period 1946–1970. However this difference has greatly reduced since 1946, mainly as a result of the increase in the proportion of children under 15 years old in the population of African descent. At the other extreme, the proportion of the population 45 years old and over has been higher among the population of African descent than among those of Indian descent throughout the period, the difference increasing slightly since 1946. For the middle age group, 15–44 years, however, the proportion was higher for the population of African descent in 1946 but by 1970 the situation had reversed. Throughout the period the proportion of the residual "Other" ethnic group in each age group has, with few exceptions, been intermediate between the proportions in the two major groups.

The sex ratios, also given in Table 4G show that for the population of African descent, there were slightly more males than females among children under 15 years old, but for the age groups covering the span 15 years old and over, with only one exception there were fewer males than females, the sex ratio being particularly low for old persons 65 years and over. Among the population of Indian descent, while there is again slightly more males than females under 15 years of age, for persons 45 years old and over there were appreciably more males than females

[5]This relates to the Indian population as compared with the rest of the population taken as a single group. There is evidence that some of the smaller ethnic groups also have very high rates of fertility and of natural increase, but because of their small numbers in the total population these have no significant impact. Differential fertility by ethnic origin is discussed in Chapters 2 and 6.

TABLE 4G: POPULATION (NUMBERS AND PROPORTIONS) AND SEX RATIOS BY ETHNIC ORIGIN 1946–1970

Year/age group		Numbers (both sexes)			Proportions			Sex ratios		
		African	Indian	All other	African	Indian	All other	African	Indian	All other
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1946	0– 4	32,984	34,211	15,748	13	18	16	1,015	994	1,052
	5–14	50,069	50,544	21,673	19	26	22	1,009	1,022	1,017
	15–44	128,395	83,967	45,043	49	43	45	979	1,047	953
	45–64	36,669	20,483	13,576	14	11	13	978	1,404	982
	65+	13,368	6,542	4,698	5	3	5	736	1,153	649
	Total	261,485	195,747	100,738						
1960	0– 4	50,792	51,290	29,542	14	17	18	1,025	1,017	1,009
	5–14	85,021	88,934	45,464	24	29	27	999	1,001	1,019
	15–44	149,380	123,387	63,945	42	41	38	964	996	941
	45–64	55,783	29,602	21,084	16	10	13	998	1,264	997
	65+	17,614	8,732	7,387	5	3	4	656	1,110	628
	Total	358,590	301,945	167,422						
1970	0– 4	46,912	51,058	23,197	12	14	15	1,023	1,001	997
	5–14	111,156	112,697	46,693	28	30	29	1,000	1,018	1,001
	15–44	156,867	159,515	60,198	39	43	38	937	964	923
	45–64	61,298	39,757	20,383	15	11	13	1,018	1,120	940
	65+	22,532	10,511	8,297	6	3	5	699	1,012	709
	Total	398,765	373,538	158,768						

at each census. The pattern for the residual "Other" ethnic group is very similar to that of the population of African descent.

The very high, but declining sex ratios for the age groups 45–64 and 65 years and over among the population of Indian descent is clearly the waning effect of the large-scale indenture immigration with its very high proportion of males. As is shown in Table 4J, the migration of non-Indians was not by any means as sex-selective. Indenture immigration would not affect the sex ratios of the younger population and hence the similarity of the three ethnic groups for persons under 50 years of age in 1960 and 1970.

The higher proportion of the population of Indian descent under 15 years of age follows from the higher level of fertility of this ethnic group, while the fact that the difference is declining is in accordance with the finding (Chapter 5) that the fertility differential between the ethnic groups has been declining since 1946.

Sex Distribution

The balance of the sexes in the various ethnic groups is of evident demographic as well as social significance. Table 4H (i) shows that the sex ratio (males per 1,000 females) for Indians was very high (1,571) in 1891, but that it declined steadily. By 1970 (Table 4H (ii)) the sexes were almost equal in number. The very high ratio of males in the early periods was due to the high proportion of males among the indentured immigrants (Table 4J).[6] The subsequent rapid fall in the ratio resulted from the decline and eventual abandonment of indenture immigration as well as the higher mortality among males (discussed in Chapter 2). For the non-Indian population, the ratio of males to females was almost unity in 1891 and from 1911 there have been more females than males. The sex ratio has declined at every succeeding census except that of 1946. Here again immigration is important, accounting for example, for the higher rate of growth of males in the period 1931–1946 and contributing to the declining ratio in the other periods. The decline in the sex ratio for non-Indians is, however, much more gradual than for Indians since the imbalance in the sexes among immigrants was much lower for the former than for Indians as is shown in the figures below.

For the censuses of 1946, 1960 and 1970 at which information on ethnic origin was obtained, the sex ratios are set out in Table 4H (ii).

[6]Marianne Diana Ramesar: *Indian Immigration into Trinidad: 1897–1917.* Unpublished M.A. Thesis, University of the West Indies, November 1973, p. 76.

TABLE 4H. (i): SEX RATIOS (MALES PER 1,000 FEMALES) FOR EAST INDIANS AND OTHERS, 1891–1931

Year	Indians	Others
	(1)	(2)
1891*	1571	1019
1901*	1410	1021
1911	1354	986
1921	1234	959
1931	1135	941

*For Trinidad only

Source: Derived from Kuczynski (1953) Chapter XVII, Table 8.

TABLE 4H(ii): SEX RATIOS (MALES PER 1,000 FEMALES) FOR ETHNIC GROUPS 1946–1970

	1946	1960	1970
	(1)	(2)	(3)
African	975	968	962
Indian	1066	1028	1002
European	1044	1004	937
Chinese	1982	1289	1166
Mixed	903	937	931
Other	1528	1037	1043

TABLE 4J. SEX RATIOS (MALES PER 1,000 FEMALES) AMONG ESTIMATED NET IMMIGRANTS TO TRINIDAD 1871–1911*

Period	Sex ratio	
	East Indian	Other
	(1)	(2)
1871–1881	2143	1101
1881–1891	2117	1246
1891–1901	1748	1147
1901–1911	3037	744

*Derived from Kucynski (1953) Chapter XVII, Table 8.

Three points are worth noting: first, that the population of African descent and the "Mixed" group have had fewer males than females at each of the three censuses; secondly, that the only other group with fewer males than females was the "European" group, and this occurred for the first time in 1970; and thirdly that for all ethnic groups except those classified as Mixed, the sex ratio has declined steadily since 1946. The Chinese have had the highest sex ratio at each of the censuses, followed by the small residual "Other" group. The ratio has been lowest among the population of Mixed origin, followed, in 1970, by persons of European and of African origin.

Geographic Distribution

A study of the geographic distribution of the ethnic groups within the country is useful for a number of reasons including that it can provide some evidence of the degree of integration of the groups. Because of the likelihood of some population displacement at the time of the 1970 census (See Chapter 1) it seems preferable to make this comparison on the basis of the 1960 situation.

From Table 4K it will be seen that in 1960 the two smallest groups – Chinese and "Other" – are largely concentrated in the towns (Port of Spain, San Fernando and Arima). As compared with over 40 per cent of these two groups living in the three towns, the proportion for persons of African descent, Mixed origin and European descent varies from 20 to 30 per cent. By contrast only 7 per cent of the Indian population live in the towns.

Using the definition of urban from Chapter 1[7] the three ethnic groups – European, Chinese and "Other" – are highly concentrated in urban areas, 60–70 per cent of these populations being urban. The population of African descent and the Mixed groups each had around 45 per cent living in urban areas, while less than 20 per cent of the Indian population was urban.

If we look at the distribution by administrative area (Table 4L), then apart from the three towns already discussed, there is a very high concentration of the European population in St. George, and to a lesser extent the Mixed, African and "Other" groups are also highly concentrated in this large county. The county with the largest proportion of the Indian population is Victoria, followed by St. George and Caroni.

[7] i.e. The Three Main Towns, the Suburbs and Special Areas and the Small Towns identified at the census.

TABLE 4K: ETHNIC GROUPS BY URBAN–RURAL RESIDENCE (PERCENTAGES) – 1960

Area	African	Indian	European	Chinese	Mixed	Other
Three Towns (only)	21.4	6.8	29.6	46.9	26.2	41.9
Total Urban	43.6	19.9	64.2	68.0	47.4	59.0
Rural	56.4	80.1	35.8	32.0	52.6	41.0

TABLE 4L: SHOWING THE PROPORTION (%) OF THE POPULATION OF EACH RACE IN EACH MAJOR ADMINISTRATIVE AREA — 1960

Area	Numbers		Proportions					
	Total population	Total population	African	Indian	European	Chinese	Mixed	Others
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Trinidad and Tobago	827,957	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Port of Spain	93,954	11.35	15.13	2.79	20.81	35.45	16.39	34.04
San Fernando	39,830	4.81	5.24	3.41	8.31	8.43	6.15	5.31
Arima	10,982	1.33	1.07	.56	.50	2.99	3.65	2.51
St. George	256,478	30.98	34.57	22.50	44.32	27.69	38.83	34.57
Caroni	90,513	10.93	5.24	20.95	2.60	4.76	5.38	5.56
Nariva	17,226	2.08	1.27	3.29	.22	.75	1.74	3.42
Mayaro	6,080	.73	1.04	.35	.45	.59	.84	.54
St. Andrew	32,590	3.94	3.25	4.20	.59	1.58	5.76	3.01
St. David	6,032	.73	1.18	.12	.16	.59	.95	.85
Victoria	132,721	16.03	10.57	26.56	11.00	6.17	8.83	5.63
St. Patrick	108,218	13.07	12.80	15.12	9.30	10.29	10.37	4.48
Tobago	33,333	4.05	8.64	.14	1.74	.72	1.11	1.08

The extent of concentration is much better demonstrated in Table 4M which shows the extent to which the distribution of each ethnic group differs from the distribution of the population as a whole. From this table it is seen that the population of African descent was especially concentrated in Tobago, Port of Spain and St. George, in that order, and was especially deficient in Caroni and Victoria. Port of Spain and St. George were also the principal areas of concentration for the European mixed and "Other" groups, and Port of Spain for the Chinese population. Indians were concentrated in Victoria and Caroni almost

identically and were very deficient in St. George. A measure of the degree of concentration of the two major ethnic groups is given by the indexes (in brackets) in Table 4M. These demonstrate the extreme position of Tobago which received no indentured workers and whose population in 1960 was almost entirely of African descent. St. David also stands out as an area of concentration of persons of African descent, followed by Port of Spain and St. George. The Indian concentration is highest, in degree, in Caroni, followed by Victoria and Nariva. The pattern for the Mixed ethnic group is generally similar to that of the population of African descent, Tobago being a notable exception. A composite measure of the amount of concentration of an ethnic group is given by the index of dissimilarity (obtained by taking the sum of all the positive or negative differences). This index can be taken as indicating the proportion of the population of a given ethnic group that would have to be displaced if that ethnic group were to have the same geographic distribution as the total population. The ethnic group with the highest concentration is the Indian population with an index of dissimilarity of 37.9 as compared with 23.2 for the population of African descent and 22.3 for the Mixed population. The smaller groups are intermediate.

In summary, then, the Indian population is the most highly concentrated and predominates in the rural areas; the smaller ethnic groups (Eurpoean, Chinese, "Other") are also fairly highly concentrated but in urban areas; the African and Mixed populations are the least concentrated though the distribution still differs appreciably from the distribution of the total population in the areas already mentioned. The above does not suggest a high degree of residential integration particularly so far as the Indian population is concerned.

Place of residence is, of course, largely determined by industrial affiliation, with the Indian population largely concentrated in sugar cane producing areas, the African and mixed groups in the rest of the country and the smaller groups mainly in the urban centres. Another indicator of ethnic integration was adopted in the West Indian 1946 Census Report, Part G which pointed out that there were "4.29 East Indian creoles for every 100 East Indians (indicating) that the process of mixing, at least as far as revealed by the census, has not gone very far". On the other hand there were "65.11 (Chinese Creole) for every 100 Chinese and indicating a high degree of mixing".[8] This measure is of course very crude as there must be little mixing in areas where there is a large concentration of the particular ethnic group.

[8]Indian Creoles and Chinese Creoles are defined as persons with one Indian parent and one Chinese parent respectively.

TABLE 4M. SHOWING THE "PERCENTAGE – POINT" DIFFERENCES[1] FOR THE POPULATION OF EACH RACE IN EACH MAJOR ADMINISTRATIVE AREA – 1960

Area	African		Indian		European	Chinese	Mixed	Others
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Port of Spain	+ 6.67	(+ 58)	–13.48	(–118)	+ 9.64	+24.34	+ 6.02	+ 22.92
San Fernando	+ .76	(+ 16)	– 2.20	(– 46)	+ 3.57	+ 3.66	+ 1.60	+ .51
Arima	– .46	(– 35)	– 1.21	(– 91)	– .85	+ 1.68	+ 2.77	+ 1.19
St. George	+ 6.33	(+ 21)	–13.37	(– 43)	+13.60	– 3.32	+ 9.38	+ 3.63
Caroni	– 10.04	(– 92)	+15.73	(+145)	– 8.49	– 6.24	– 6.63	– 6.54
Nariva	– 1.43	(– 69)	+ 1.91	(+ 91)	– 1.90	– 1.34	– .41	+ 1.35
Mayaro	+ .55	(+ 74)	– .60	(– 82)	– .29	– .14	+ .13	– .19
St. Andrew	– 1.22	(– 31)	+ .41	(+ 11)	– 3.41	– 2.38	+ 2.17	– .94
St. David	+ .79	(+109)	– .96	(–132)	– .58	– .14	+ .26	+ .12
Victoria	– 9.63	(– 60)	+16.58	(+104)	– 5.13	– 9.96	– 8.60	– 10.40
St. Patrick	– .48	(– 4)	+ 3.25	(+ 25)	– 3.84	– 2.81	– 3.23	– 8.68
Tobago	+ 8.13	(+201)	– 6.13	(–153)	– 2.33	– 3.34	– 3.49	– 2.97
Index of dis-similarity ...	23.23		37.91		26.81	29.68	22.33	29.72

[1]These "percentage-point differences" are derived by deducting from the figures for each race in Table 4L, the proportion of the total population in the area, and dividing the result by 1 – p where "p" is the proportion which a particular race is of the total population. The differences are expressed with a plus (+) or minus (–) sign, the plus indicating that more than the "expected" number of persons of the given race are found in that area, and the minus that less than the "expected" number are there, where the "expected number" may be interpreted as the number that would exist if there were no racial concentration. The index of concentration shown in brackets after the figures for persons of African and Indian descent, is obtained by expressing the percentage-point difference as a percentage of the proportion for the particular category in the total population.

Religion

The ethnic heterogeneity of the country is matched by and in a large part associated with the religious heterogeneity. Nearly 70 per cent of the population is Christian, the largest Christian denomination being Roman Catholic, which comprised 36 per cent of the population in 1960, and the second largest is the Anglican with 21 per cent. The other Christian denominations, all with less than 5 per cent of the total population, include Presbyterians, Methodists, Baptists, Seventh Day Adventists and many others. Hindus and Muslims between them comprise all but a small number of the non-Christians. In 1960 the Hindus comprised 23 per cent of the total population and were therefore the second largest separate religious group; about 6 per cent of the population were Muslim.

From Table 4N it will be seen that up to 1960 Roman Catholics have increased slowly but steadily as a proportion of the total population since 1911 when this group comprised 32 per cent of the total. Anglicans, on the other hand, have declined steadily from 27 per cent in 1911. Among the smaller denominations, Presbyterians, Baptists, Seventh Day Adventists have increased their share of the total population, and Jehovah Witnesses were recorded for the first time separately as a proportion of the total since the census of 1891. Of the two non-Christian religions, the Muslims have grown slowly but steadily since the beginning of the century, but each successive census has shown a small downward movement in the relative importance of this religious group.

The preliminary tabulations for the 1970 Census do not provide data for all the groups shown for the preceding censuses in Table 4N. Of the religious groups shown, those which increased their numbers in the period 1960–1970 are Roman Catholic (an increase of 10 per cent), Muslim (17 per cent) and Presbyterian and Hindu (21 per cent each). The number of Anglicans, Methodists and Moravians declined in this decade. As a consequence, only Muslims, Hindus and Presbyterians increased as a proportion of the total population between 1960 and 1970.

There has been some argument in favour of using religion rather than race or ethnic origin in social and demographic research. This relates particularly to the use of the religious groups Hindu and Muslim in preference to the ethnic group Indian in such studies. (See, for example, Braithwaite, 1967). Cross-tabulations of religion by ethnic origin have not been given in the census reports but in 1931 there is a table showing the religion of Indians and Others. At that census all of the Hindus and all but 500 of the Muslims were Indians, and these two groups comprised

TABLE 4N. PRINCIPAL RELIGIOUS DENOMINATIONS, 1891–1970

Denomination	1891	1901	1911	1921	1931*	1946	1960	1970
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Roman Catholic ...	73,766	89,213	106,113	121,403	142,862	192,500	299,627	331,733
Anglican	55,767	74,920	90,045	96,029	101,724	135,312	175,044	168,521
Presbyterian ...	3,382	5,859	8,562	10,772	14,263	20,128	32,413	39,363
Methodist	10,502	10,388	12,383	12,477	13,257	14,048	18,220	15,507
Moravian	5,835	6,321	7,069	6,775	6,618	7,152	7,309	6,527
Seventh Day Adventist ...	..	..	886	1,681	3,400	6,816	12,631	N.A.
Other Christian ...	4,080	5,634	6,759	8,778	13,111	19,139	38,044	N.A.
Hindu	55,191	68,906	85,087	88,300	93,889	126,345	190,424	230,097
Muslim	8,638	11,478	14,957	17,698	20,992	32,615	49,736	58,252
Other non-Christian ...	551	414	1,266	1,532	2,016	1,256	233	N.A.
No Religion	669	766	425	468	620	1,977) 682)	4,276 ..	N.A. N.A.
All Other								81,071
Total	218,381	273,899	333,552	365,913	412,783	557,970	827,957	931,071

TABLE 4N. PRINCIPAL RELIGIOUS DENOMINATIONS, 1891—1970 —Continued

Denomination	Proportion per cent							
	1891	1901	1911	1921	1931*	1946	1960	1970
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Roman Catholic ...	33.78	32.57	31.81	33.18	34.61	34.50	36.19	35.63
Anglican	25.54	27.35	26.99	26.24	24.64	24.25	21.14	18.10
Presbyterian	1.55	2.14	2.57	2.95	3.46	3.61	3.91	4.23
Methodist	4.81	4.16	3.71	3.40	3.21	2.52	2.20	1.67
Moravian	2.67	2.31	2.12	1.85	1.61	1.28	0.88	0.70
Seventh Day Adventist ...	..	..	0.27	0.46	0.82	1.22	1.53	N.A.
Other Christian ...	1.87	2.05	2.03	2.40	3.18	3.44	4.59	N.A.
Hindu	25.27	25.16	25.51	24.13	22.74	22.64	23.90	24.71
Muslim	3.95	3.83	4.48	4.84	5.09	5.84	6.01	6.26
Other non-Christian ...	0.25	0.15	0.38	0.42	0.49	0.23	0.03	N.A.
No Religion						0.35	0.52	N.A.
Not Stated	0.31	0.28	0.13	0.13	0.15	0.12	..	N.A.
All Other								8.71
All Religions	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00

*Figures are quoted from page 17 of the 1931 Census Report. They do not tally exactly with those in the General Abstract D on page 20A of the same report, which are quoted in Table D hereof, nor yet with those in Table D on pages 348—51, which makes the total of Hindus 94,010, Muslims 21,290 and other non-Christians 1,596.

Source: West Indian Census 1946 Part G, Chapter VI.

68 per cent and 15 per cent respectively of the Indian population. The remaining 17 per cent of the Indian population were Christians, the largest numbers being Presbyterian (7 per cent), Roman Catholic (6 per cent) and Anglican (3 per cent). Indians were the dominant ethnic group among Presbyterians, comprising 72 per cent of that denomination. Among the non-Indians, Roman Catholics comprised 49 per cent, Anglicans 36 per cent, and Methodists 5 per cent (Table not shown).

For 1970, preliminary census tabulations permit a cross-classification of religion by ethnic origin (Table 4P). Among the population of Indian descent, Hindus comprised a somewhat lower proportion in 1970 than in 1931 (61 per cent as against 68 per cent), while the proportion who were Presbyterian and Roman Catholic increased. It is well known that most of the Indians are either Hindu or Muslim (76 per cent in 1970), but an even greater concentration of an ethnic group is found in the case of those classified as Mixed, of whom 78 per cent were Roman Catholic in 1970. The proportion of persons of African descent who are Roman Catholics is much lower than this, somewhat less than one-half, and about one third of this group were Anglicans.

TABLE 4P. POPULATION BY ETHNIC ORIGIN AND RELIGION
1970 CENSUS

Numbers

Religion	Ethnic origin				
	Total	African	Indian	Mixed	Other
	(1)	(2)	(3)	(4)	(5)
Roman Catholic	331,733	197,072	33,312	103,813	15,536
Anglican	168,521	139,802	6,192	17,120	5,407
Methodist	15,507	14,044	181	722	560
Moravian	6,527	6,444	10	61	12
Presbyterian	39,363	1,212	34,844	2,474	833
Hindu	230,097	389	228,758	725	225
Muslim	58,252	303	57,105	686	158
All Other	81,071	57,499	13,136	8,105	2,331
All Religions	931,071	398,765	373,538	133,706	25,062

If we consider these figures in terms of the dependence of the religious groups on one or other ethnic group, then the most extreme are Moravians, Methodists and to a lesser extent Anglicans, for their dependence on the population of African descent; and Hindus, Muslims and Presbyterians, for their dependence on the population of Indian descent.

Hindus were more highly represented among the rural population. There were, on the other hand, more Christians among Indians living in urban areas than among those in rural areas. In this respect the Muslims were intermediate but again with heavier representation in the urban areas. (Table 4Q).

TABLE 4Q. PROPORTION OF URBAN AND RURAL INDIANS WHO WERE HINDU, MUSLIM AND CHRISTIAN AT THE 1960 CENSUS

	Total population	Urban	Rural
	(1)	(2)	(3)
Hindu	63.1	41.9	68.3
Muslim	16.5	21.8	15.2
Christian*	20.4	36.3	16.5

*Taken as all 'Other'.

Education

A necessary condition of the system of slavery in the Caribbean was that the slaves had to be kept uneducated and ignorant. Obviously, if the slaves were allowed to attain skills greater than those needed for their unpaid work, or if they were to receive some general education, particularly Christian instruction, this would unfit them for their essential role as servile, unskilled manual labour. Missionary efforts from the middle of the eighteenth century, strongly supported by the British Government in 1823, to give religious education to the slaves, were therefore resisted and opposed by the Caribbean planters by every conceivable means. It follows that "on any count popular education had not begun under slavery, despite the praiseworthy striving of the missionaries". (Gordon, 1963).

After emancipation, the inadequacy of educational opportunities in the colony became very obvious. Spurred on by the ever-growing population, which made the few denominational and other schools totally inadequate, the various religious denominations vied with each other in the setting up of schools. "No sooner did one denomination open a school than others followed their example, without any serious consideration of the needs of the district and then called upon the Government to help in maintenance..." This prompted the then Governor

MacLeod to observe that educational development "appeared to originate more in a spirit of rivalry or jealousy than to be regulated by any sound principle". (Carmichael, 1961).

This marks the beginning of a problem which has persisted to the present, that of how best to institute a general plan of education in a country with such a mixed population as regards religion. Other cultural aspects of the population contributed to the difficulties of instituting an efficient and acceptable education system. For example, in 1851, "French was the dominant language, and services in ... Catholic Churches were normally preached in either French or Spanish". (Williams, 1962). As early as 1842 the Secretary of State for the Colonies stressed the difficulties, as far as education was concerned, "arising out of the differences in language and of Religion; the majority of the population being foreign in language and Roman Catholic in religion, the bulk of the property being English and Protestant. (Stanley, 1842).

Problems also arose because of the continued rapid population growth after emancipation through indenture immigration, and because of the considerable racial mix. In this connection, the large and rapidly growing Indian indentured population were a special problem.

Because of these special difficulties and the absence of any sound education policy, it has been judged that "in 1846, education in Trinidad was at a lower standard than in any other of the British colonies. The first decisive step to a unified education policy was taken with the Education Ordinance of 1851 which shifted emphasis from the church schools to free public schools one of which was to be maintained in each administrative ward the cost being borne by the local rates. Religious education in school was prohibited and the management and control of the schools was vested in an Education Board. In 1870 this approach was largely reversed with the setting up of what has come to be known as the denominational system and changes since then have been geared to obtaining the best balance in a system largely controlled by the denominations but largely financed by Government. The Education Act of 1966 has greatly limited the power of the denominations.

With the arrival of the Canadian Mission to the Indians in the 1860's, for the first time special attention was turned, after long neglect, to the education of the Indians.

Secondary education in Trinidad started towards the middle of the last century when first a Government and later a Roman Catholic secondary school were started. The University College of the West Indies was established in 1949 as a College of London University and later

became the University of the West Indies. Prior to this all persons wishing to attend university had to leave Trinidad mainly for the United Kingdom or North America.

Literacy: 1911–1946

Information on the level of education of the population as a whole was obtained, for the first time, at the census of 1960. Before this, in the censuses from 1911 to 1946, information was obtained on whether persons were: (a) able to read and write; (b) able to read only; (c) able to do neither – the illiterate. Moreover, in the censuses prior to 1946 the data on literacy were not classified by age so that children under 5 years old who had not yet started schooling are shown as illiterate.

Despite the shortcomings of these data, three points clearly emerge from the figures in Tables 4R and 4S. The first is that there was a steady and significant improvement in the level of literacy in the population. Thus Table 4R shows the proportion of the total population who were able to read rising steadily while Table 4S shows a steady decline in the proportion of the population aged 5 years old and over[9] who were illiterate. The second point is that the level of literacy was very much lower among the population of Indian descent than among the rest of the population. However the literacy rate of Indians increased rapidly from its extremely low level in 1921, though it still remained very much lower than the rest of the population taken as a whole. One question that suggests itself is whether in part the unfavourable position of the Indians in this regard might be due to the question of literacy being related to the English language. In the analysis of the 1946 West Indian Census[10] attention has been drawn to the fact that the highest illiteracy rates are associated with groups among which languages other than English are current, including the French patois speaking people of St. Lucia and Dominica and the Indians of Guyana and Trinidad.

The third point which stands out in Table 4R is that while the level of literacy (ability to read) is virtually the same for males and females other than Indians, among the population of Indian descent the rate is very much higher for males, though the female rate was increasing somewhat more rapidly.

It is more meaningful to relate literacy to the population 10 years old and over and this is possible for 1946. As is shown in Table 4T,

[9] See footnote to Table 4S.

[10] West Indian Census 1946, Part A – General Report on the Census of Population.

TABLE 4R. NUMBER AND PROPORTION OF PERSONS ABLE TO READ (ALL AGES), 1911–1946

Year	Persons			Per 1,000 of total population		
	Both sexes	Males	Females	Both sexes	Males	Females
	All races					
	(1)	(2)	(3)	(4)	(5)	(6)
1911	154,258	79,662	74,596	462	457	469
1921	185,217	94,913	90,304	506	508	504
1931	235,023	120,998	114,025	569	586	553
1946	350,660	184,613	166,047	631	663	599
	East Indians					
1921	15,392	12,006	3,386	127	179	62
1931	31,695	23,099	8,596	229	313	132
1946	78,876	50,658	28,218	405	504	299
	Others					
1921	169,825	82,907	86,918	695	693	697
1931*	203,328	97,899	105,429	742	737	747
1946	271,784	133,955	137,829	752	752	753

*Figures obtained from 1931 Report by subtraction of East Indians (page 32C) from total (page 20A). They do not agree with figures on page 30B.

Source: West Indian Census, 1946. Vol. II. Part G.

TABLE 4S. RATE OF ILLITERACY AMONG POPULATION AGED 5 YEARS (ILLITERATE PERSONS PER 1,000 PERSONS 5 YEARS OLD AND OVER)

1911	1921	1931	1946
473	428	357	258

Note: The number of illiterate persons are taken as the number shown in the census as illiterate less the total population under 5 years old, since only persons 5 years old and over were questioned about literacy.

nearly 23 per cent of this population were illiterate in 1946, again the rate for Indians being very much higher than for the rest of the population.

Table 4U compares the situation in Trinidad and Tobago with the rest of the Commonwealth Caribbean in 1946 and shows that the overall

TABLE 4T. PROPORTION OF PERSONS 10 YEARS OLD AND OVER WHO WERE ILLITERATE, 1946 BY ETHNIC GROUP

Ethnic group	Both sexes	Male	Female
	(1)	(2)	(3)
European descent	3.1	2.8	3.4
African descent	9.5	8.8	10.1
Indian descent	50.6	36.9	65.7
Syrian	13.8	12.6	15.9
Chinese descent	14.6	17.2	8.3
Mixed	8.6	7.7	9.3
All races	22.6	18.2	27.0

Source: West Indian Census, 1946, Vol. II, Page G.

illiteracy rate for Trinidad and Tobago was higher than that of all countries in the Region except the Windward Islands (as a group) and Jamaica. In particular, the rate is more than three times as high as that of Barbados, the lowest rate in the Region. However, excluding the population of Indian descent who, as explained above were a special case, the rate for Trinidad and Tobago is only slightly higher than that of Barbados and compares favourably with the other countries in the Region.

Table 4U also makes it clear that the high level of illiteracy was, by 1946, a phenomenon mainly among older persons, and while the rate remained ten times as high for Indians as for non-Indians, among young children 10–14 years old there evidently has been considerable progress in reducing the level in both groups.

Table 4V shows the rate of illiteracy by age group in Trinidad and Tobago in 1946. For the population 10 years old and over, the level of illiteracy is relatively low among younger persons but increases steadily for each higher age group. Thus 87 per cent of Indians 65 years and over were illiterate but only 16 per cent of those 10–14 years old, while for non-Indians the rates are 29 per cent and under 2 per cent respectively. This clearly indicates how the rate of literacy has been improving over time for both Indians and non-Indians. But for age groups covering persons under 25 years of age, the rate of illiteracy among Indians was still, in 1946, ten times as high as among the non-Indian population.

Educational Attainment: 1960–1970

In 1960 and 1970, the census questions on literacy were abandoned in favour of more detailed information on the highest level of educational attainment.

TABLE 4U. PROPORTION OF PERSONS 10 YEARS OLD AND OVER WHO WERE ILLITERATE – COMMONWEALTH CARIBBEAN 1943/1946

Country	Aged 10 and over			Aged 10–14 both sexes	Aged 65+ both sexes
	Both sexes	Male	Female		
	(1)	(2)	(3)	(4)	(5)
Barbados	7.3	6.0	8.3	0.9	20.1
British Guiana	21.4	16.1	26.5	8.7	32.6
Amerindians	49.6	46.1	52.9	29.0	71.2
East Indians	44.0	30.3	59.0	14.5	86.9
Others	2.9	2.6	3.2	1.4	11.4
British Honduras	16.1	15.1	17.1	6.6	32.3
American Indians	42.5	39.6	45.5	19.6	73.9
Caribs	22.2	10.6	31.2	2.1	69.6
Others	10.0	10.0	10.0	4.0	23.1
Leeward Islands	14.6	14.3	14.7	2.7	30.2
Trinidad and Tobago	22.6	18.2	27.0	7.1	44.2
East Indians	50.6	36.9	65.7	15.7	87.2
Others	9.1	8.5	9.6	1.5	28.6
Windward Islands	29.1	29.6	28.7	11.4	50.1
Dominica	35.0	36.0	34.1	11.9	63.2
Grenada	18.2	17.2	19.0	2.5	40.8
St. Lucia	44.8	45.5	44.2	27.8	69.5
St. Vincent	18.9	18.6	19.2	5.2	31.5
Jamaica (1943)	23.9	26.6	21.4	14.5	37.9
Turks Islands	12.4	13.2	11.7	7.8	24.8
Cayman Islands	7.7	9.5	6.3	5.6	18.3
British Caribbean	22.0	21.6	22.3	10.5	37.4

Source: West Indian Census, 1946. Vol. I. Part G.

We begin by looking at level of school attendance of the current school-age population (taken here as covering 5–19 years of age). Table 4W shows that a small number of children under 5 years were recorded as attending school at both the 1960 and the 1970 censuses, consisting no doubt, mainly of 4 year olds attending private nursery schools. Of the population 5–19 years of age (Table 4W) slightly more than 80 per cent of the children 5 years old were attending school in 1960 and in 1970. For the population 6–13 years old, the school attendance rate is well over 90 per cent in most cases, especially for ages 7–11 where it approaches 100 per cent. From 14 years onwards the proportion attending school falls off rapidly.

TABLE 4V. PROPORTION OF PERSONS 5 YEARS OLD AND OVER WHO WERE ILLITERATE, 1946, BY AGE GROUPS

Age in years	All races			East Indian			Other
	Both sexes	Males	Females	Both sexes	Males	Females	Both sexes
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
5– 9	45.4	45.1	45.7	52.9	51.7	54.1	39.7
10–14	7.1	4.1	10.2	15.7	7.9	24.0	1.5
15–19	16.7	11.3	21.4	37.3	22.5	50.9	3.5
20–24	19.3	12.9	25.4	45.8	27.6	64.1	4.9
25–34	21.7	15.7	27.8	54.5	35.0	75.7	6.7
35–44	24.7	20.0	29.6	63.3	45.7	84.2	9.9
45–54	29.3	26.4	32.4	71.1	57.3	89.4	13.6
55–64	38.0	37.3	38.0	80.1	72.0	92.4	17.8
65+	44.2	42.9	45.2	87.2	79.6	95.9	28.6
10+	22.6	18.2	27.0	50.6	36.9	65.7	9.1

Source: West Indian Census, 1946. Vol. II. Part G.

A comparison of the 1960 and 1970 figures shows an increase in the school attendance rate for every single year of age in the case of females, and in all but two cases (ages 13 and 14 years) in the case of males. The increases are particularly large for children 16 years old and over in the case of males, and those 14 years old and over in the case of females. In 1960, the attendance rate of males was higher than that of females for children 11 years old and over (the differences between the sexes was negligible for the younger ages), the excess being especially large for ages 13–15 years. By 1970, however, with the considerable increase in school attendance among girls 15 years old and over, the school attendance rate of females was higher than that of males for most age groups, the excess being especially large for ages 15–17 years.

For the age group 5–19 years as a whole, the proportion attending school was 76 per cent for males and 73 per cent for females in 1960, and this had increased to 78 per cent for each sex in 1970.

In Table 4X the population 15 years old and over is classified according to the highest level of school attended. Here, in addition to the traditional levels – primary, secondary and university – there is a residual group which includes persons who could not be fitted in to this scheme (e.g. some persons educated in a foreign country) and the small number of "not stated" cases. In 1960, about 8 per cent of the males and 15 per

TABLE 4W. SCHOOL ATTENDANCE RATE FOR CHILDREN 5–19 YEARS OLD, 1960 AND 1970

Age	School attendance rate 1960		School attendance rate 1970		Change 1960–1970	
	Male	Female	Male	Female	Male	Female
	(1)	(2)	(3)	(4)	(5)	(6)
Under 5 years	8.8	9.6	10.6	11.6	+ 1.8	+ 2.0
5 "	80.0	81.6	80.1	82.3	+ 0.1	+ 0.7
6 "	94.5	95.1	96.2	96.6	+ 1.7	+ 1.5
7 "	97.6	97.9	98.5	98.4	+ 0.9	+ 0.5
8 "	98.5	98.7	98.6	98.8	+ 0.1	+ 0.1
9 "	98.8	99.0	98.8	99.1	– 0.0	+ 0.1
10 "	98.6	98.3	98.7	99.2	+ 0.1	+ 0.9
11 "	98.2	92.3	98.6	98.7	+ 0.4	+ 6.4
12 "	96.4	93.4	96.5	96.4	+ 0.1	+ 3.0
13 "	92.0	84.7	90.6	89.8	– 1.4	+ 5.1
14 "	77.9	67.4	77.2	76.3	– 0.7	+ 8.9
15 "	52.7	44.4	54.8	59.0	+ 2.1	+ 14.6
16 "	34.0	31.8	43.0	49.3	+ 9.0	+ 17.5
17 "	25.3	21.8	34.4	40.3	+ 9.1	+ 18.5
18 "	15.1	11.6	23.8	25.9	+ 8.7	+ 14.3
19+ "	4.2	3.9	13.8	15.0	+ 9.6	+ 11.1
5– 9 "	93.2	93.8	94.6	95.2	+ 1.4	+ 1.4
10–14 "	93.0	87.6	92.5	92.3	– 0.5	+ 4.7
15–19 "	27.5	24.0	35.6	39.5	+ 8.1	+ 15.5
Total:						
Under 20 "	55.2	53.5	61.2	62.2	+ 6.0	+ 8.7
5–19 "	75.8	72.6	77.7	78.4	+ 1.9	+ 5.8

TABLE 4X. POPULATION 15 YEARS OLD AND OVER BY SEX AND HIGHEST LEVEL OF EDUCATION

	Male		Female		1970 Index (1960=100)	
	1960	1970	1960	1970	Male	Female
			Numbers			
	(1)	(2)	(3)	(4)	(5)	(6)
None	18,509	14,419	35,617	28,595	78	80
Primary	177,037	181,074	170,451	178,323	102	105
Secondary ...	32,930	56,350	31,818	58,785	171	185
University ...	2,204	3,812	587	1,483	173	253
Other and N.S. ...	4,218	7,236	3,035	9,281	172	306
Total	235,239	262,891	241,675	276,467	112	114
			Proportions			
None	7.9	5.5	14.7	10.3		
Primary	75.3	68.9	70.5	64.5		
Secondary ...	14.0	21.4	13.2	21.3		
University ...	0.9	1.4	0.2	0.5		
Other and N.S. ...	1.8	2.8	1.3	3.4		

cent of the females had received no formal education. By 1970 these proportions had declined somewhat to 6 per cent and 10 per cent respectively. The proportion who had not gone further than primary school had also declined between 1960 and 1970, while the proportion who had attended secondary school increased from about 14 per cent to 21 per cent. There was an increase too of persons who had attended university, but this proportion still remained quite low in 1970 – 1.4 per cent for males and 0.5 per cent for females. Since the population covered in this table includes persons still at school, undoubtedly some of the younger persons still in secondary school will continue to university.

A more detailed breakdown of the level of attainment of the population 15 years old and over is given in Tables 4Y and 4Z for 1960 and 1970 respectively. Data which would allow a comparison at this level for the two censuses are not at present available.

In 1960 about one quarter of the men and the women 15 years old and over had completed primary school (Standard 7 or the equivalent of 9 years of primary schooling) but had gone no further. About the same

TABLE 4Y. POPULATION 15 YEARS OLD AND OVER SHOWING HIGHEST LEVEL OF EDUCATION BY AGE AND SEX – 1960 (MALE AND FEMALE)

	15–19	20–24	25–34	35–44	45–54	55–64	65+	Total 15+
	Proportion (Male)							
No Education	1.3	2.0	3.8	7.8	13.0	17.0	28.1	7.9
Primary – Total	68.2	77.2	78.4	80.6	76.4	73.2	63.1	75.3
Up to Standard 2 ...	3.9	5.2	6.9	9.6	10.8	10.5	9.9	7.7
Standards 3–4 ...	11.5	14.7	15.3	17.2	18.2	18.9	18.8	15.9
Standards 5–6 ...	25.6	26.9	25.1	23.8	22.4	21.8	18.8	24.1
Standard 7 ...	27.3	30.5	31.0	29.9	25.0	21.9	15.7	27.5
Secondary – No School Certificate ...	25.8	12.0	9.0	4.9	4.2	3.5	2.5	9.9
Secondary – School Certificate ...	4.1	7.7	5.7	3.3	2.4	1.6	1.1	4.1
University	–	0.3	1.8	1.6	1.3	1.3	0.9	1.1
Other (including Not Stated)	0.6	0.8	1.5	1.7	2.7	3.4	4.3	1.8
	Proportion (Female)							
No Education	2.3	5.0	12.6	21.0	23.3	23.1	26.9	14.7
Primary – Total	69.5	74.3	72.2	69.7	69.1	70.0	66.8	70.5
Up to Standard 2 ...	4.7	6.5	7.9	7.4	7.1	7.3	7.7	6.9
Standards 3–4 ...	13.0	14.9	14.4	14.6	16.6	18.4	20.1	15.3
Standards 5–6 ...	25.5	26.2	24.6	23.7	23.4	24.3	21.5	24.4
Standard 7 ...	26.3	26.7	25.3	24.0	22.0	20.0	17.4	23.9
Secondary – No School Certificate ...	24.3	13.3	8.8	5.0	4.1	3.3	3.1	9.9
Secondary – School Certificate ...	3.4	6.6	4.5	2.5	1.7	1.3	0.7	3.3
University	0.0	0.2	0.6	0.4	0.3	0.2	0.2	0.3
Other (including Not Stated)	0.5	0.7	1.2	1.4	1.6	2.0	2.3	1.3

TABLE 4Z. PERSONS 15 YEARS AND OVER NOT ATTENDING SCHOOL BY SEX, AGE AND EXAM PASSED (PROPORTIONS) 1970

	15–19	20–24	25–34	35–44	45–54	55–64	65+	Total
	Male							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
None	85.3	76.3	80.9	86.6	91.0	92.9	95.2	85.6
School Leaving	8.1	7.6	5.6	2.4	1.3	1.0	0.6	4.3
G.C.E. (O) ½	1.9	3.4	0.9	0.2	0.2	0.1	–	1.0
G.C.E. (O) ¾	1.5	3.5	1.4	0.5	0.2	0.1	0.1	1.2
S.C./G.C.E. (O) 5+/G.C.E. (A) 1 ...	1.8	5.8	5.2	3.6	2.4	1.6	0.8	3.5
G.C.E. (A) 2+	0.4	0.9	0.7	0.5	0.3	0.4	0.2	0.5
Diploma	0.1	0.6	1.5	1.9	1.3	1.1	0.6	1.1
Degree	–	0.3	1.6	1.9	1.1	0.8	0.5	1.0
Other	0.9	1.7	2.2	2.4	2.1	2.0	1.3	1.9
	Female							
None	78.7	73.8	83.4	90.7	94.3	95.3	97.3	85.8
School Leaving	8.6	7.8	4.7	1.7	0.9	0.8	0.5	4.2
G.C.E. (O) ½	3.0	3.6	0.6	0.2	0.1	0.1	–	1.3
G.C.E. (O) ¾	2.6	3.5	1.0	0.4	0.2	0.1	–	1.3
S.C./G.C.E. (O) 5+/G.C.E. (A) 1 ...	3.2	5.9	4.8	2.8	1.7	1.1	0.5	3.3
G.C.E. (A) 2+	0.4	0.9	0.5	0.3	0.2	0.2	0.1	0.4
Diploma	0.1	0.7	1.3	1.2	0.7	0.6	0.3	0.7
Degree	–	0.2	0.7	0.5	0.2	0.2	0.1	0.3
Other	3.3	3.8	3.0	2.2	1.7	1.6	1.2	2.6

number had reached Standards 5 or 6 (equivalent of 7 or 8 years of primary schooling). About one half of each sex, therefore, had received 7–9 years of primary schooling but no secondary education. About 10 per cent of each sex had attended (or were attending) secondary school, but had not obtained a School Certificate,[11] while 4 per cent of the males and 3 per cent of the females had obtained this Certificate. (Table 4Y).

For the various age groups, the proportion with secondary education was much higher among young persons 15–19 years old, and to a lesser extent among persons 20–34 years old, than among those 35 years old and over.

The information available for 1970 (Table 4Z) is of a different form, and shows, for persons 15 years old and over *not attending school,* the highest examination that they have passed. This provides no breakdown for the bulk of population, since about 86 per cent of each sex had passed no examination.[12]

Of the 14 per cent who had passed an examination for each sex, 4 per cent had passed the (Primary) School Leaving Certificate, 2–3 per cent had G.C.E. passes below the level of the full School Certificate, 4 per cent had the School Certificate and equivalent or higher secondary certificates. About 2 per cent of males and 1 per cent of females had a university degree or a diploma.

The proportion who had passed an examination was very much higher among young persons 20–24 years of age than among older persons; less than 5 per cent of females 45 years old and over had passed an examination of the type considered here as compared with 26 per cent of those 20–24 years of age. The proportion 15–19 years old who had passed an examination was lower than the proportion 20–24 years as many of the former who have obtained or will obtain certificates are still at school and are excluded from this table.

The situation in 1970 therefore suggests some improvement in that the proportion of persons who have passed some examination is much higher among younger persons than among persons 25 years old and over. However, much of this improvement comprises persons with a Primary School Leaving Certificate or with fewer than 5 G.C.E. passes at the

[11] The Cambridge School Certificate, which is equated to 5 or more subjects at the Ordinary Level in the G.C.E. Examination.

[12] This refers to examinations for which an acknowledged certificate is given, including the School Leaving Certificate at the end of Primary School, and School Certificate and G.C.E. examinations, university degrees and diplomas etc.

Ordinary Level, and hence the proportion with a School Certificate, its equivalent or higher has not improved markedly. The failure of this proportion to show marked improvement is probably in large measure associated with the large scale emigration of persons in the last inter-censal interval, many of whom, it is believed, are among the better educated.

Age/Sex Structure

The rapid changes in the birth and death rates and the occasional large-scale migration movements discussed earlier have also had appreciable effects on the age and sex structure of the population. Migrants tend in general to be young adults rather than very young or very old persons where, as in the case of Trinidad and Tobago, the prime motivation for movement has been employment. In the past, immigrants consisted mainly of males and hence the sex balance of the population was also affected. A large increase in the number of births would tend to increase the proportion of young persons in the population, while a significant decline in the number of births would have the opposite effect. The rapid decline in the level of mortality which has been experienced since 1921 has undoubtedly also had some effect on the age/sex structure, but this is likely to be much less important than the effect of the other two components.

Table 4AA shows the age distribution of the population (both sexes) and the sex ratios at each of the censuses from 1891 to 1970. Diagram 4.2 with its series of age pyramids also highlights the changes that have taken place in the age/sex structure of the population over this period.

Age Groups Under 2 years and 2–14 Years

The population under 2 years old declined slightly, as a proportion of the total population, from 4.8 per cent in 1901 to 4.3 per cent in 1931, then grew sharply to over 6 per cent in 1946 and 1960. In 1970, however, this age group was back to the same proportion it was at the turn of the century. There was little change in the age group 2–14 years between 1891 and 1946, but this age group grew sharply from 30 per cent in 1946 to 36 per cent in 1960 and 37.5 per cent in 1970.

The changes in these two age groups is almost entirely the result of the very large changes in the annual number of births, which started a few years before 1946. This is clearly demonstrated by Table 4BB which shows the contribution of each component of growth to the separate age cohorts. First the number of births, increasing from about 1943, led to the increase in the proportion under 2 years old in 1946, and the increasing number of births maintained this high proportion of this young cohort in 1960.

DIAGRAM 4.2. AGE PYRAMIDS 1901, 1921, 1946, 1960 & 1970

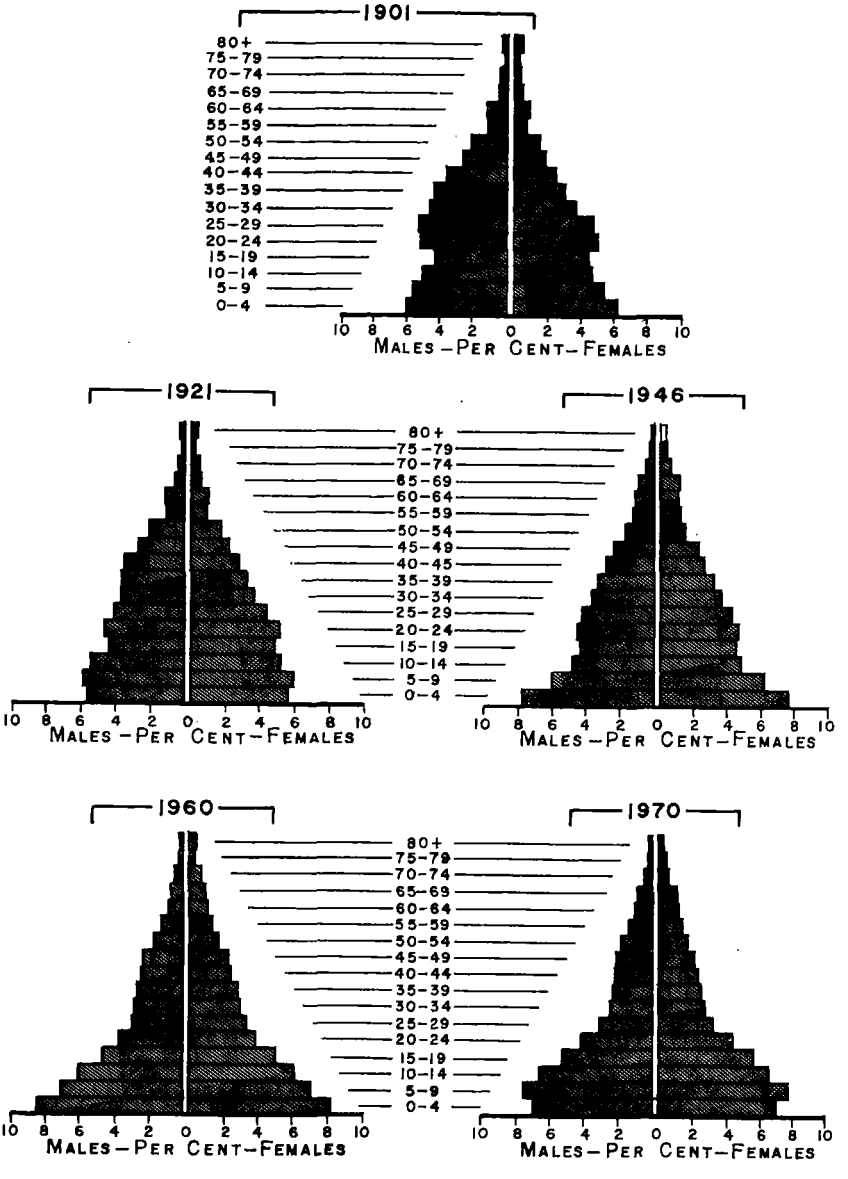


TABLE 4AA. AGE DISTRIBUTION (PROPORTIONS) AND SEX RATIOS AT CENSUS DATES —1891–1970

Age group	1891	1901	1911	1921	1931	1946	1960	1970
	A — Age Distribution							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Total								
Under 2 years	4.6	4.8	4.6	4.1	4.3	6.3	6.4	4.6
2–14 "	28.1	28.4	29.2	30.0	29.6	30.4	36.0	37.5
15–44 "	51.6	51.5	50.8	49.4	48.6	46.1	40.7	40.4
45–64 "	12.8	12.4	12.4	13.3	14.1	12.7	12.9	13.0
65+	3.0	2.9	2.9	3.1	3.4	4.4	4.1	4.4
	B — Sex Ratios							
Total	1,155	1,177	1,095	1,043	1,002	1,005	988	974
Under 2 years	994	970	1,000	1,035	980	1,018	1,025	1,020
22–14 "	1,025	1,025	1,028	1,013	1,016	1,014	1,007	1,006
15–44 "	1,206	1,151	1,108	1,013	956	996	971	946
45–64 "	1,377	1,299	1,280	1,272	1,182	1,086	1,066	1,037
65+	1,014	1,004	994	949	913	811	744	771

The decline in births during the 1960's resulted in the decline in this proportion by 1970. For the age group 2–14 years old, the increased births started too early to affect the 1946 group, and in turn the decline in the 1960's has not yet had its full effect on this age group.

The large increase in the number and proportion of young persons under 15 years of age since the Second World War, has put considerable strain on the educational facilities available and has resulted in a large increase in the level of young dependency.

The sex ratio for children under 2 years of age increased considerably between 1901 and 1921, then fell back in 1931 to the level at the beginning of the century. Since 1931 the ratio increased to 1960 and then fell slightly between 1960 and 1970. This largely mirrors changes in the sex ratios at birth in the 2 years preceding the censuses, as is shown in Figure 4.3.

For the age group 2–14 years, the sex ratio was 1025–1028 in the period 1891–1911, fell to 1013–1016 for the period 1921–1946 and fell further to 1006–1007 in the last two censuses. This decline does not appear to be a result of changing sex ratios at birth; indeed the sex ratio of births forming this cohort has been increasing since 1931. A relatively greater improvement in the female mortality at these ages, and a decline in the number of immigrants (mainly male) with the end of indenture are therefore the likely causes.

Age Group 15–44 Years

The age group 15–44 years is the only one which had a lower proportion of the total population in 1970 than it had in 1891. Indeed the proportion in this age group has declined steadily throughout the period under review. Significant declines in the proportion 15–44 years of age followed the declining importance of immigration and, more recently, large-scale emigration. Since migrants tend to fall in this group, the proportion of the population in this age group was swollen by the immigration that had been taking place. With the decline in immigration, however, the proportion in this age group declined to a more "stable" level, but this has since 1960 been further depressed by the large number of emigrants.

The extent to which the age-group 15–44 years had been affected by migration is demonstrated in Table 4BB which shows that when the country gained 29.4 thousand migrants in the period 1931–46, 24.8 thousand (84 per cent) were in this age group, and when there was a loss of 126.6 thousand through migration in the period 1960–70, 84.5 thousand (67 per cent) were from this age group.

DIAGRAM 4.3. SEX RATIOS OF: COHORT UNDER 2 YEARS AND BIRTH IN THE PRECEDING 2 YEARS 1891–1970

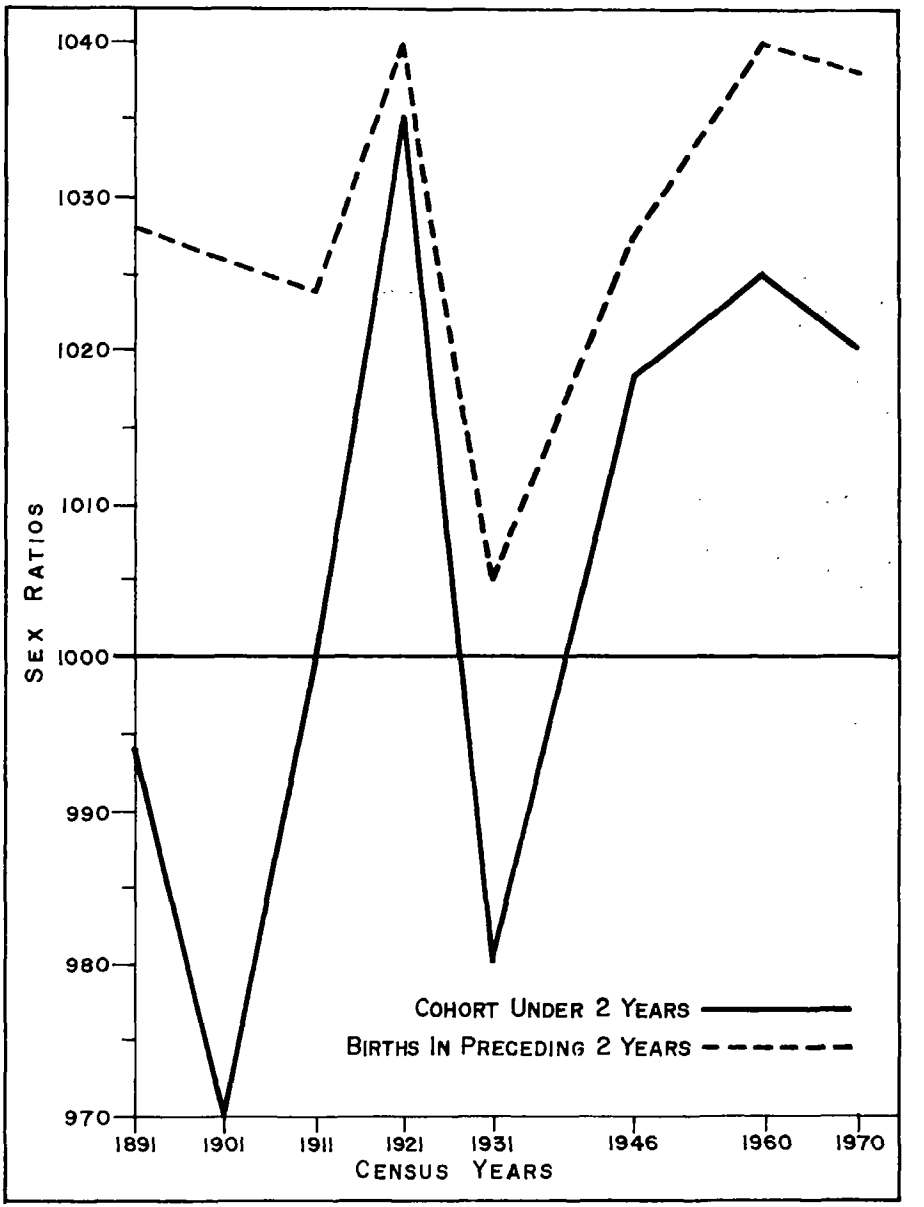


TABLE 4BB. COMPONENTS OF GROWTH BY COHORTS BETWEEN CENSUSES 1931–46, 1946–60 AND 1960–1970

Components of Growth	Total Population			Age of Cohort at end of Period					
				Under 2 years			2 – 14		
	1931–46	1946–60	1960–70	1931–46	1946–60	1960–70	1931–46	1946–60	1960–70
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Population at beginning of period	412.7	563.2	827.9	–	–	–	–	20.0	131.6
Births	238.9	363.8	307.5	42.8	39.1	52.5	196.1	304.7	255.0
Deaths	117.8	104.0	68.1	2.7	3.0	2.0	27.7	28.6	13.7
Expected population* ...	533.8	823.0	1067.3	40.1	56.1	50.5	168.4	296.1	372.9
Population at end of period ...	563.2	827.9	940.7	38.2	53.1	42.5	172.3	297.9	349.2
Estimated migration balance	+29.4	+4.9	–126.6	–1.9	– 3.0	8.0	+3.9	+1.8	–23.7

Components of Grwoth	Age of Cohort at end of Period								
	15–44			45–64			65 and over		
	1931–46	1946–60	1960–70	1931–46	1946–60	1960–70	1931–46	1946–60	1960–70
Population at beginning of period	253.8	346.0	467.6	103.6	131.6	156.1	50.8	65.6	72.7
Births	–	–	–	–	–	–	–	–	–
Deaths	25.7	13.2	6.5	23.5	19.1	13.8	38.1	40.1	32.1
Expected population* ...	232.6	332.8	461.1	80.1	112.5	142.3	12.7	25.5	40.6
Population at end of period ...	257.4	336.7	376.6	70.8	106.5	121.4	24.6	33.7	41.5
Estimated migration balance	+24.8	+3.9	–84.5	–9.3	–6.0	–20.4	+11.9	+8.2	+0.9

*Without migration.

The relative decline in this age group is of importance in two respects. First, persons in this age group have the highest labour force participation and therefore the decline would tend to reduce the proportion of the total population who are economically active (see Chapter 5) and would hence increase the level of dependency in the country. Secondly, this age group covers the period of child-bearing age for women, and a decline in the relative importance of this age group has tended to reduce the number of births and the crude birth rate (see Chapter 2).

The sex ratio of this age group has declined almost continuously throughout the period, from 1206 in 1891 to 946 in 1970. Here again, the very high sex ratio at the beginning of the period under review existed because of the very large immigration that had been taking place, with males comprising the majority of the immigrants. The end of large-scale immigration resulted in the fall in the sex ratio, and this has been bolstered by the lower mortality among females. The new large-scale out-migration from Trinidad and Tobago in the period 1960–1970 has not had much effect on the sex ratio as the number of male and female migrants (net) is almost identical (66,000 males and 61,000 females).

The declining sex ratio in this age group would also effect overall labour force participation; since participation rates of males is appreciably higher than that of females, the effect would be to contribute to a reduction in the proportion of the total population who are economically active. As regards the effect on the number of births and the crude birth rate, since the ratio of women to men has increased, the birth potential of the population (i.e. relating to the proportion of women of child-bearing age) has consequently increased.

Age Groups 45–64 and 65 Years and Over

The proportion of the total population who are aged 45–64 years old has hardly changed during the period under review. It increased slightly in 1921 and 1931 following the decline in immigration, and hence at the expense of the age group 15–44 years. However, the subsequent large increase in births resulted in a decline in the group 45–64 as the youngest age groups increased. The proportion 65 years old and over has increased from about 3 per cent up to 1921, to over 4 per cent in 1960 and 1970. This reflects the improvements in the level of mortality and the increased average length of life for older persons.

The sex ratios of the two groups covering persons 45 years old and over have declined throughout the period with only one exception – the slight up-turn for persons 65 years and over in 1970. To a large extent

this is the result of ageing since at each period the sex ratio of persons 15–44 years old was lower than that of the older group. The longer length of life of females has also contributed to this declining sex ration.

Summary

The effects of the country's population history, and more specifically its migration history, are evident in many of the characteristics of the population. During the period of greatest immigration, a large proportion of the population at any given time was, of course, foreign born – at the censuses of population held in the nineteenth century these formed about 45 per cent of the total. The proportion has fallen steadily in the twentieth century with the declining importance of immigration to about 6 per cent in 1970. During the period of large-scale indenture immigration, persons born in India formed the largest group of the foreign born. In other periods, including the present, the largest group comprises persons born in the other Caribbean islands, especially Barbados, Grenada and St. Vincent.

Also as a result of the large scale immigration, the population of the country today comprises a variety of ethnic and religious groups. Persons of African and Indian descent are the two dominant groups, while there are small, but significant numbers of persons of European descent, Chinese origin, Syrian/Lebanese origin and others. In this situation, the number of persons classified as of Mixed ethnic origin, is understandably high. The population of Indian descent are concentrated in rural areas (particularly sugar cane growing areas) to a much greater extent that the other ethnic groups, while urban concentration is particularly high among persons of European descent and the other numerically small groups.

As regards religion, about 70 per cent of the total population is at present Christian, about 23 per cent is Hindu and about 6 per cent Muslim. Among the Christians, Roman Catholics are the largest denomination, followed by Anglicans. There are a large number of smaller denominations among the Christians. There is a clear relationship between ethnic origin and religion, with the population of Indian descent being mostly either Hindu or Muslim. The vast majority of the other ethnic groups are Christians.

There has been considerable improvement in the level of literacy (obtained at censuses from 1911 to 1946) and in the level of educational attainment (at censuses of 1960 and 1970). This means that at the present time, the level of education is very much higher among younger persons than among old persons, and the appreciable differential between the level of education of males and females which characterised the population up to the Second World War, is fast disappearing. At the census of 1921

illiteracy was particularly high among persons of Indian origin, partly because of the indenture system and probably in part because literacy was related to the English language. The level of education of this ethnic group remained for much of the time below that of the rest of the population though considerable improvement was registered. By the present time this differential in the level of education of the ethnic groups has largely disappeared, and has entirely disappeared among younger persons. The more detailed information on education collected at the censuses of 1960 and 1970 indicate a growing proportion of the population with secondary education, though many of these leave school without obtaining the equivalent of a School Certificate (5 passes at the Ordinary Level in the G.C.E.).

The age and sex structure of the population has also been affected in the past by the volume of external migration, and more recently by the changes in the level of fertility and by the rapid decline in the level of mortality since 1921. Thus, the proportion of the population who were 2 years old and under was higher in 1946 and 1960 than in previous censuses as a result of the increasing birth rate at that time. By 1970, however, with the fall in the birth rate, this proportion had fallen to the same level it was at the beginning of the century. The impact of the increasing birth rates was felt somewhat later by the cohort 2–14 years old, which was much higher in 1960 and 1970 than in previous censuses. With the increasing level of mortality, persons 45 years old and over increased slightly as a proportion of the total population, the increase being mainly among persons 65 years old and over. The proportion of the population who were 15–44 years of age, on the other hand, has fallen consistently since 1891, the fall being particularly large between 1946 and 1960.

But for a slight halt between 1931 and 1946, the sex ratio (males per 1,000 females) of the total population has declined steadily since 1901. For age groups 15–44, 45–64 and 65 years and over, the sex ratio has declined steadily since 1891. For children under 2 years old the sex ratio was very high in 1921 and has declined consistently since then, while the sex ratio of those 2–15 years old has declined since 1911. The decline in the group 15–44 years old directly reflects the decline in the male-dominated immigration of early periods, and the decline in the sex ratio of persons 45 years old and over is an indirect result of this since at each census persons aged 45 years and over were survivors of a group with a lower sex ratio during the prime age of immigration (15–44 years). The decline in the sex ratio of persons under 15 years of age is not related to a change in the sex ratio at birth and is therefore assumed to reflect the relatively greater improvement in female mortality and, to a lesser extent, a decline in the immigration of young persons (mainly male) with the end of indenture.

CHAPTER 5

THE ECONOMICALLY ACTIVE POPULATION

Introduction

Since for so much of this country's history, and up to a half-century ago, population policy was based on the need for importing labour into a country which was under-populated, it is remarkable to find that today the country is considered to be over-populated, and there is evidence of appreciable labour surplus. Some evidence of the present situation is given by the fact that unemployment is officially estimated at 15 per cent of the labour force, under-employment is known to be very much higher than this, and there is little prospect of an early solution of these employment problems.

This situation has arisen partly because indentured labour was used by planters: (a) to obtain a large enough work-force to meet the peak demands of the sugar-cane crop season, and hence there was necessarily a surplus of labour during the rest of the year; (b) to provide surplus labour even during the crop season to ensure a low-paid and dependable work force. In part too, however, it results from the rapid population growth in the last few decades, during which time "economic development" and industrialization have had negligible impact on the surplus labour situation. (Harewood, 1974).

The present chapter deals with the growth in the economically active population since 1891, the shifting structure of the working population, and the present size, structure and trends in the labour force.

The Economically Active Population 1891–1960

Since the population growth of the country was, until the First World War, so dependent on immigrant labour, it would be expected that during that period a very high proportion of the population of working age would be economically active. This is borne out by Table 5A which shows that in the period 1891–1921, 85–87 per cent of all

males 10 years old and over were gainfully occupied[1], while among females, 74 per cent were gainfully occupied in 1891, and though the proportion declined steadily, the proportion in 1921 was still 63 per cent.

Because of the high level of immigration, the proportion of population gainfully occupied was higher in Trinidad and Tobago, as in Guyana, during the late nineteenth and early twentieth centuries, than in those Commonwealth Caribbean countries which were not recipients of large-scale immigration. This is seen in Table 5B which compares participation in these two countries with that in Barbados and Jamaica. The difference is particularly marked for males. In the case of females,

TABLE 5A. THE GAINFULLY-OCCUPIED POPULATION AND GENERAL GAINFUL-WORKER RATES FOR THE POPULATION 10 YEARS OLD AND OVER 1891–1960

Year	Population 10 years old and over			Gainfully-occupied population 10 years old and over		
	Both sexes	Male	Female	Both sexes	Male	Female
	(1)	(2)	(3)	(4)	(5)	(6)
1891	167,931	91,838	76,093	136,647	79,931	56,716
1901	209,821	112,438	97,383	160,397	94,583	65,814
1911	253,961	134,440	119,521	192,588	115,378	77,210
1921	280,458	144,063	136,395	208,579	123,014	85,565
1931	315,826	158,290	157,536	197,736	130,575	67,161
1946	406,875	203,681	203,194	210,963	158,231	52,732
1960	578,702	286,352	292,350	265,372	195,827	69,545

Year	General gainful worker rates			Average annual decline in gainful worker rates		
	Both sexes	Male	Female	Both sexes	Male	Female
	(7)	(8)	(9)	(10)	(11)	(12)
1891	81.37	87.44	73.94			
1901	76.44	85.02	67.58	0.49	0.24	0.64
1911	75.83	85.82	64.60	0.96	0.08	0.30
1921	74.37	85.39	62.73	0.15	0.04	0.19
1931	62.61	82.49	42.63	1.18	0.29	2.01
1946	51.85	78.62	26.06	0.72	0.26	1.10
1960	45.86	68.39	23.79	0.43	0.73	0.16

[1]Definitions of the terms "gainfully occupied", "labour force" etc., are given at the end of this Chapter.

TABLE 5B. GAINFULLY OCCUPIED POPULATION OF FOUR LARGEST COLONIES 1891–1946

Sex and Colony	Gainfully-occupied population				Proportion*			
	1891	1911	1921	1946	1891	1911	1921	1946
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Male :								
Barbados ...	44,957	38,615	36,536	49,776	79.1	78.0	79.5	78.1
British Guiana	107,986	106,724	101,538	105,584	88.4	89.0	86.0	79.2
Trinidad and Tobago ...	79,931	115,378	123,014	160,137	87.4	85.8	85.4	78.6
Jamaica ...	183,219	220,537	223,965	320,346	81.3	78.4	78.4	72.5
Four Colonies	416,093	481,254	485,053	635,843	83.8	82.2	81.7	75.5
Female :								
Barbados ...	59,504	61,977	58,084	41,593	78.3	77.1	76.9	49.2
British Guiana	75,612	84,330	76,812	40,580	78.2	89.0	67.9	29.4
Trinidad and Tobago ...	56,716	77,210	85,565	52,956	73.9	64.6	62.7	26.1
Jamaica ...	190,147	190,213	219,137	163,927	75.4	60.0	64.7	33.9
Four Colonies	381,979	413,730	439,598	299,056	76.2	67.6	66.1	32.9

Note: *Percent of total population aged 10 years and over.

Source: West Indian Census 1946, Part G.

while the proportion economically active is very much lower in Trinidad and Tobago and Guyana than in the other two countries since 1946, prior to this the rates in the former countries were as high as, and often higher than those in Barbados and Jamaica.

The level of gainful employment was also, understandably, appreciably higher among the immigrant population, in part because a very high proportion of the immigrants were adult males of early working age. This can be seen by comparing, for 1891, the worker rates of Indians, among whom about 70 per cent were immigrants, with the rest of the population among whom immigrants comprised only about 35 per cent. At the census of that year, the proportion of the male population 10 years old and over who were gainfully occupied was 95 per cent in the case of Indians and 85 per cent for the rest of the population. The proportions for females were 94 per cent and 86 per cent respectively.

Satisfactorily comparable data on the gainfully occupied population are available from 1891 onwards. These figures (Table 5A) show that the number of gainfully occupied males increased constantly through the period 1891–1960, the rate of increase being lower in the two

decades 1911–21 and 1921–31 than in the rest of the period. In 1960, the number of gainfully occupied males was about two and a half times that of 1891. In the case of females, the numbers gainfully occupied increased in each of the first three inter-censal periods, the rate of increase in 1911–21 being lower than in the two preceding intervals. In the two inter-censal intervals covering the period 1921–46, however, there was a sharp decline in the number gainfully occupied, the decline being large enough in the earlier interval to offset the increase in the number of males, resulting in a decline in the total gainfully occupied population (both sexes) in this interval only.

The result was that the number of females gainfully occupied in 1946 was less than in 1891. There was a large increase in this number in the interval 1946–1960, but the female gainfully occupied population in 1960 was only slightly higher than in 1901 and appreciably lower than in 1911 or 1921.

Although the number of males gainfully occupied increased at each census, the general gainful worker rate (i.e. gainful workers as a percentage of the general population 10 years old and over) for males declined in every interval except 1901–11, while the decline in the following decade was negligible. In the case of females the gainful worker rate declined throughout the period 1891–1946. For both males and females the decline in the gainful worker rate greatly accelerated after 1921. In the period 1921–1946, the decline in the female rate was considerable, especially in the decade 1921–31, and the decline in the male rate, though much lower, was also appreciable. In the interval 1946–60, however, the male rate declined much more rapidly than the female rate which, in fact, sustained only a negligible fall.

The principal demographic factor which has contributed to this decline in gainful worker rates is the changing age structure of the population. The effect of the changing age structure during the present century is shown in Table 5C.[2] The effect on the female gainful worker rate has not been large in any inter-censal period, though it was highest in the period 1946–60. For males, on the other hand, the effect of age structure has been significant in the inter-censal periods 1901–11 (positive), 1911–21 and 1946–60 (negative), the effect in the period 1946–60 being very appreciable. This pattern, of course, closely relates to the pattern of immigration: as the level of immigration declined, the relative importance of the population aged 20–44, among whom worker

[2]Derived by a comparison of the age-standardized gainful-worker rates (1946 population used as standard) with the un-standardized rates. For the census years preceding 1946 the method of indirect standardization has had to be used. See Harewood 1963.

participation is highest, has declined, and this has affected males to a greater extent because a large proportion of immigrants in the past had been males. In the period 1946–60, the effect of the higher level of fertility, and to a lesser extent the decline in mortality, have added their contribution to a shift in age structure in which the young persons 10–19 years old as well as older persons 55 years and over have become a larger proportion of the population of working age (taken here as being 10 years old and over).

But, as is shown in Table 5C despite the importance of the changing age structure, factors other than age have contributed most to the observed decline. Among males, these "other factors" actually contributed to an increase in the gainful worker rate in the first two decades of the century, this tendency being almost matched in each decade by

TABLE 5C. CHANGE IN GENERAL GAINFUL-WORKER RATES FOR PERSONS 10 YEARS OLD AND OVER 1891–1946 ATTRIBUTED TO AGE-STRUCTURE AND "OTHER" FACTORS

	Male					
	1891–1901	1901–1911	1911–1921	1921–1931	1931–1946	1946–1960
	(1)	(2)	(3)	(4)	(5)	(6)
(a) Change in General Gainful Worker Rate	– 2.42	+ 0.80	– 0.43	– 2.90	– 3.87	– 10.23
(b) Change due to Age-Structure – Amount	– 1.45	– 1.39	– 1.65	– 0.36	+ 0.19	– 4.32
As % of Total Change	59.9%	(173.7%)	383.7%	12.4%	(4.9%)	42.2%
(c) Change due to other Factors – Amount	– 0.97	+ 2.19	+ 1.22	– 2.54	– 4.06	– 5.91
As % of Total Change	40.1%	273.7%	(283.7%)	87.6%	104.9%	57.8%

	Female					
	1891–1901	1901–1911	1911–1921	1921–1931	1931–1946	1946–1960
	(7)	(8)	(9)	(10)	(11)	(12)
(a) Change in General Gainful Worker Rate	– 6.36	– 2.98	– 1.87	– 20.10	– 16.57	– 2.27
(b) Change due to Age-Structure – Amount	+ 0.37	+ 0.12	– 0.53	+ 0.16	– 0.49	– 1.10
As % of Total Change	(5.8%)	(4.0%)	28.3%	(0.8%)	3.0%	48.5%
(c) Change due to other Factors – Amount	– 6.73	– 3.10	– 1.34	– 20.26	– 16.08	– 1.17
As % of Total Change	105.8%	104.0%	71.7%	100.8%	97.0%	51.5%

a decline resulting from changing age structure. From 1921 onwards, however, there has been a steady decline in the rate because of these "other factors", the annual average decline being highest in the period 1946–60. Among females, the "other factors" have contributed to a decline in the rate in every inter-censal period, but the decline in 1921–31 and to a lesser extent 1931–46 is considerably greater than in the other periods. Indeed, in the inter-censal period 1946–60 the decline due to these "other factors" was negligible.

This secular decline in gainful worker participation is undoubtedly in some part a reaction from the abnormally high participation rates prior to 1921. A very high participation rate existed in the society at that time for a variety of reasons including a legacy from slavery when virtually all persons old enough to work were occupied, the enforced employment of indentured labour and the voluntary activity of most free immigrants who had migrated because of the employment opportunities in Trinidad. With slavery now almost forgotten, the indentured system ended, and the proportion of residents born in the territory rising appreciably, the special factors leading to an abnormally high participation have disappeared. But in addition, rising levels of living, increased urbanization and modernization and other social and economic factors also contributed to the participation decline. Roberts (1957) found evidence of similar declines in Jamaica from the earliest census in 1844, and a similar pattern of declining labour force participation has been observed in most developing countries. (Harewood, 1963).

In the case of Trinidad and Tobago, the massive decline in female participation in the interval 1921–1946 is largely associated with the end of indentured labour and the decline of Indian female participation. But 1931 was a time of depression and this has contributed to the exceptionally large decline in both male and female rates as compared with 1921. In the period 1946–60 the increased level of school attendance was an important factor in the decline of participation by both males and females while continued improvements in the level of living, including opportunities for retirement through greater employment pension and old age pension provisions also contributed. On the other hand, the decline in the importance of Agriculture and other activities which employed many very young and old persons (many as unpaid family workers) reduced opportunities for participation among these age groups. The period 1946–60 also witnessed a reversal in the decline in female participation except for the youngest and oldest age groups: for all age groups in the span 20–54 years, the participation rates increased between 1946 and 1960 (Table 5D). This increased female participation has also been observed in a number of developed and

DIAGRAM 5.1. AGE–SPECIFIC WORKER RATES, 1946 & 1960

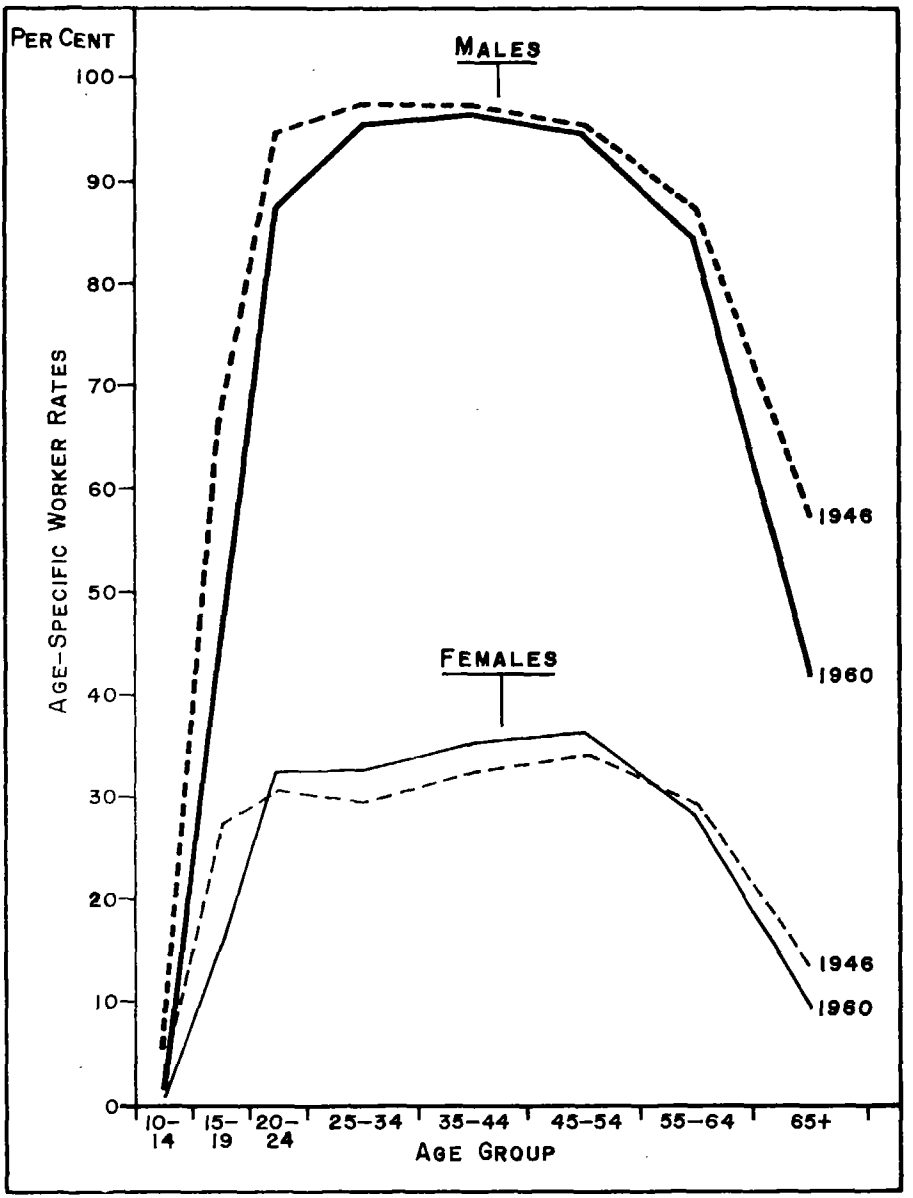


TABLE 5D. AGE-SPECIFIC WORKER RATES 1946 AND 1960

	Age group								Total rate
	10–14	15–19	20–24	25–34	35–44	45–54	55–64	65+	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Male									
1946 ...	5.15	65.51	94.71	97.66	97.58	95.49	87.70	57.39	79.77
1960 ...	1.64	45.20	87.85	95.75	96.77	94.71	84.01	41.80	73.90
Female									
1946 ...	3.51	27.15	30.69	29.84	32.37	34.03	29.57	13.57	26.16
1960 ...	0.85	15.30	32.31	32.57	35.05	36.11	28.74	9.60	25.58

in some cases developing countries. It reflects the general tendency for greater participation of women in the labour force in better off countries, in part a result of increasing educational attainment among females.

Characteristics of the Economically Active Population, 1891–1946

Occupations 1891–1946

It is possible, from the data for the various censuses of population, to get some idea of changes in the occupational structure of the gainfully occupied population since 1891. First we deal with changes in the period 1891–1946 based on comparative tables published in the 1946 Census Report. It must be stressed, however, that these comparisons must be treated with caution since the list of occupations varied from one census to another both in content and detail, and in addition, the "earlier census reports all speak of the unreliability of much of the data as recorded, occupations not having been described accurately enough to enable them to be correctly classified even according to the scheme in use at the time." (1946 Census Report).

With these shortcomings in mind, the numbers and proportions of workers in the comparative occupation classes identified in the 1946 Census Report are shown in Table 5E. The largest occupational class in 1891, for both males and females, was "unskilled workers" which comprised nearly two-thirds of the male and nearly one-half of the female working populations. The number of workers in this class increased for each sex until 1921 and then declined, the decline in the period 1931–46 being particularly large. By 1946 this occupational class comprised less than one-third of the male working population, though it remained

TABLE 5E(i). GAINFULLY-OCCUPIED POPULATION BY SEX AND OCCUPATIONAL CLASSES, 1891–1946

Occupational class	Male					
	1891	1901	1911	1921	1931	1946
	(1)	(2)	(3)	(4)	(5)	(6)
Farmers, farm managers and foremen ...	6,600	8,813	13,100	13,797	12,390	17,007
Owners, managers, officials ...	1,812	2,074	1,900	1,084	1,796	5,969
Foremen, inspectors, testers ...	63	61	58	..	364	2,347
Skilled workers	10,552	13,207	14,043	17,635	21,271	38,566
Operatives (semi-skilled) ...	2,394	1,651	2,874	1,245	7,287	15,358
Clerical workers	665	1,353	1,772	1,433	3,673	9,323
Sales workers	2,677	3,342	5,301	7,775	7,744	6,696
Professional service ...	984	1,337	2,031	1,983	3,111	4,598
Protective service ...	522	1,432	798	1,047	1,570	6,143
Personal service	2,653	3,359	3,963	2,865	2,763	4,497
Unskilled workers ...	50,883	57,762	69,538	74,134	65,876	49,408
Occupation not stated* ...	126	192	—	16	647	225
Total gainfully occupied ...	79,931	94,583	115,378	123,014	128,492	160,137

Occupational class	Female					
	1891	1901	1911	1921	1931	1946
	(7)	(8)	(9)	(10)	(11)	(12)
Farmers, farm managers and foremen ...	1,306	1,625	3,427	4,317	2,964	2,596
Owners, managers, officials ...	524	667	520	235	218	1,245
Foremen, inspectors, testers ...	—	—	..	..	33	18
Skilled workers	9,577	10,917	13,407	13,110	9,364	9,317
Operatives (semi-skilled) ...	29	7	74	..	79	1,357
Clerical workers	18	76	170	121	805	3,263
Sales workers	2,452	2,888	3,568	5,317	4,448	4,689
Professional service ...	745	976	1,404	1,105	2,189	3,077
Protective service ...	—	—	5	—	39	176
Personal service	14,849	19,900	21,295	25,348	21,511	17,525
Unskilled workers ...	27,201	28,737	33,340	35,964	21,869	9,605
Occupation not stated* ...	15	21	—	48	231	88
Total gainfully occupied ...	56,716	65,814	77,210	85,565	63,750	52,956

*Or not able to be classified

Source: West Indian Census, 1946. Vol. II, Part G.

TABLE 5E(ii). GAINFULLY OCCUPIED BY SEX AND OCCUPATIONAL CLASSES, 1891–1946 (PERCENTAGES)

Occupational class	Male					
	1891	1901	1911	1921	1931	1946
	(1)	(2)	(3)	(4)	(5)	(6)
Farmers, farm managers and foremen ...	8.3	9.3	11.4	11.2	9.7	10.6
Owners, managers, officials ...	2.3	2.2	1.6	0.9	1.4	3.7
Foremen, inspectors, testers ...	0.1	0.1	0.1	—	0.3	1.5
Skilled workers ...	13.2	14.0	12.2	14.3	16.6	24.1
Operatives (semi-skilled) ...	3.0	1.8	2.5	1.0	5.7	9.6
Clerical workers	0.8	1.4	1.5	1.2	2.9	5.8
Sales workers	3.4	3.5	4.6	6.3	6.1	4.2
Professional service ...	1.2	1.4	1.8	1.6	2.4	2.9
Protective service ...	0.6	1.5	0.7	0.9	1.2	3.8
Personal service	3.3	3.6	3.4	2.3	2.2	2.8
*Unskilled workers ...	63.8	61.2	60.3	60.3	51.5	30.9
Occupation not stated ...	—	—	—	—	—	—
Total gainfully occupied ...	100.0	100.0	100.0	100.0	100.0	100.0
*Agricultural labourer, fisherman, forest labourer ...	51.4	46.4	47.7	42.7	38.6	17.0
General labour etc. ...	12.4	14.8	12.6	17.6	12.9	13.9

Occupational class	Female					
	1891	1901	1911	1921	1931	1946
	(7)	(8)	(9)	(10)	(11)	(12)
Farmers, farm managers and foremen ...	2.3	2.5	4.4	5.1	4.7	4.9
Owners, managers, officials ...	0.9	1.0	0.7	0.3	0.3	2.4
Foremen, inspectors, testers ...	—	—	—	—	0.1	..
Skilled workers	16.9	16.6	17.4	15.3	14.7	17.6
Operatives (semi-skilled) ...	0.1	...	0.1	—	0.1	2.6
Clerical workers	...	0.1	0.2	0.1	1.3	6.2
Sales workers	4.3	4.4	4.6	6.2	7.0	8.9
Professional service ...	1.3	1.5	1.8	1.3	3.4	5.8
Protective service ...	—	—	...	—	0.1	0.3
Personal service	26.2	30.2	27.6	29.6	33.9	33.2
*Unskilled workers ...	48.0	43.7	43.2	42.1	34.4	18.2
Occupation not stated ...	—	—	—	—	—	—
Total gainfully occupied ...	100.0	100.0	100.0	100.0	100.0	100.0
*Agricultural labourer, fisherman, forest labourer ...	40.0	36.7	36.8	34.3	29.5	15.6
General labour etc. ...	8.0	6.9	6.4	7.8	4.9	2.6

the largest class; in the case of females, however, it contained only somewhat more than one-half as many persons as the class "personal service" which was by then the largest class. The "unskilled workers" are subdivided into agricultural labourers (plus fishermen and forest labourers) and general labourers (plus stevedores), the former being by far the larger group.

As with the total "unskilled workers", the number of general labourers increased up to 1921 and then declined. In the case of males, however, there was a reversal in the downward trend in the period 1931–46, undoubtedly associated with the large-scale war-time employment. As a proportion of the gainfully occupied population, general labourers declined rapidly after 1921 in the case of females.

The decline in the importance of Agriculture is well demonstrated by the fall in the proportion of the gainfully occupied population who were Agricultural labourers, especially in the period 1931–46. The occupational class "farmers, farm managers and foremen", which along with "agricultural labourers" comprise all agricultural workers, did not decline as a proportion of the total gainfully occupied population. However, taking these two groups together, male agricultural workers fell slowly from 60 per cent in 1891 to 48 per cent in 1931 and then to 28 per cent in 1946. Female agricultural workers comprised 42 per cent of the gainfully occupied population in 1891, and 34 per cent in 1931, but slumped to 20 per cent in 1946. The large decline in the period 1931–46 partly reflects the accelerated downward trend in the employment of agricultural labourers since 1921, but in some measure too it was due to the shortage of labour available for agriculture during the Second World War when there was a general labour shortage as discussed earlier, and this resulted in a significant shift from agriculture to better-paid occupations.

Skilled and semi-skilled workers, taken together, remained at 15–16 per cent of the male working population until 1921 and then increased rapidly to 34 per cent in 1946; on the other hand, there was little change in the female proportion. In the case of males there was a large and growing number of occupations classed as skilled and semi-skilled. Among the new occupations which became important in 1946, are: welders, electricians, stationary engine-men, motor vehicle drivers, miners (presumably in petroleum mining) and factory and workshop workers not elsewhere specified. On the other hand, occupations which were disappearing included; wheelwrights, coach-builders and coopers. Important skilled and semi-skilled occupations in 1946 included in addition, carpenters, masons and painters,

mechanics, tailors and shoemakers. The principal skilled occupation among females was that of dressmaker which represented 95 per cent of the skilled female workers and 84 per cent of the combined skilled and semi-skilled female occupation classes. The number of female dressmakers increased from 9,000 in 1891 to over 13,000 in 1911 and 1921 and then declined again to under 9,000 in 1931 and 1946.

Personal service workers is the third largest class with 33 per cent of the female gainfully occupied population at the beginning of the period under review and 26 per cent in 1946. The number of female personal service workers consisting mainly of domestic servants including laundresses increased from 15,000 in 1891 to 25,000 in 1921 and then declined again to 17,500 in 1946. This class of worker is very much smaller among males.

Clerical workers, sales workers and protective service workers (armed forces, police, firemen etc.) together increased as a proportion of both the male and the female working populations. The increase was largest in the interval 1931–46, being exceptionally large in the case of females where the number of clerical workers increased from 800 to over 3,000, with stenographers/typists numbering over 1,000. The number of male clerical workers and "armed forces" also increased appreciably in this period, there being two and a half times as many clerical workers in 1946 as in 1931. There were 2,400 persons in the armed forces in 1946 as compared with 800 in 1901, 200 in 1921 and negligible numbers at the other censuses. This large increase and the large-scale entry of females into the clerical occupations were in large measure war-time developments already discussed.

The number and proportion of persons in the professional service class increased at each census except 1921 when there was a small decline for males and females. Among females the predominant occupations in this class were school teachers and nurses, these two comprising 85 per cent of the total class in 1946. Among males, school teachers were the largest occupation (one-third of the total class in 1946) but there were significant numbers in other professions such as the medical profession, the legal profession, druggists and religious workers, and in addition three occupations in the construction industry which increased considerably between 1931 and 1946: architect, draughtsman and engineer.

The remaining two classes in the table are "owners, managers, officials" and "foremen, inspectors, testers", both classes excluding persons in farming occupations. The numbers in these two groups are relatively small but increased appreciably in the 1931–46 interval. The importance of both groups fell during the period 1911–31.

Industries, 1931–1946

The industry in which economically active persons were engaged was recorded in 1931, but not at any previous census. In the 1946 Census Report of Trinidad and Tobago the 1931 figures were arranged under similar group headings to those in 1946 to permit comparison (See Table 5F).

The most outstanding feature revealed by this table is the remarkable decline in the numbers engaged in Agriculture, from 89,300 to 53,800. The 1931 figures apparently include Sugar Milling with Agriculture but even the addition of these 3,500 in 1946 to Agriculture, would still leave a considerable decline of over one-third. As a proportion of the gainfully occupied population, workers (both sexes) in Agriculture (including sugar milling) fell from 46 per cent in 1931 to 27 per cent in 1946. The decline among women is even more striking, from 23,300 to 10,700. Within Agriculture, employment in Sugar Planting (including sugar milling) fell by about one-quarter, while the fall in cacao and coffee planting was considerable, the 1946 employment being only slightly above one-fifth of that of 1931. There was some increase in employment in Other Agriculture. This massive decline in agricultural employment is due partly to the very large declines in the acreage under cacao and coffee following the fall in cacao prices, and partly to the general shortage of labour during the later war years at which time there was a movement away from Agriculture.

The greatest increase, to offset the decline in agriculture, was in construction where employment nearly trebled. Construction was, of course, at a very low level in 1931 during the period of general depression. The table also shows a very large increase in the Public Service but the comparison is impaired by the fact that the 1931 figure excludes workers in the education and postal services. Moreover, the 1946 figure has been greatly inflated by the unusually high war-time Armed Forces figure of 9,400 or more than one-half of the total Public Service figure.

There was also a significant increase in employment in the petroleum industry. This comparison, too, is partly impaired because in 1931 employment in oil refining was grouped with oil drilling and the latter figures are combined with quarrying in the industry group Quarrying and Mining. However the number of persons in quarrying is small (comprising only 789 out of a total of 6,772 in Mining and Quarrying in 1946) and the increase in employment in petroleum may therefore be closely approximated by grouping together Quarrying and Mining with Petroleum Refining. This shows an increase from 5,300 to 11,500 and is in accordance with the highly increased activity in this industry during the war.

TABLE 5F. GAINFULLY OCCUPIED POPULATION BY INDUSTRY GROUP, 1931, 1946

Industry group	Both sexes				Male				Female			
	%	1931	%	1946	%	1931	%	1946	%	1931	%	1946
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Agriculture:—												
Sugar planting[1]	17.1	33,687	10.4	22,102	18.3	23,582	10.4	16,671	15.9	10,105	10.3	5,431
Cocoa and coffee[6]	17.9	34,533	3.5	7,495	20.2	25,967	3.9	6,262	13.4	8,566	2.3	1,233
Coconut growing	2.0	3,938	1.6	3,388	2.3	2,919	1.7	2,721	1.6	1,019	1.3	667
Other agriculture[5]	8.9	17,147	9.8	20,861	10.5	13,476	10.9	17,415	5.8	3,671	6.5	3,446
Total agriculture[5]	46.4	89,305	25.3	53,846	51.3	65,944	26.9	43,069	36.7	23,361	20.4	10,777
Quarrying and mining[2]	2.8	5,340	3.2	6,772	4.1	5,198	4.1	6,644	0.2	142	0.2	128
Fishing	0.6	1,189	0.8	1,592	0.9	1,188	1.0	1,588	...	1	...	4
Forestry	0.1	200[3]	1.6	3,329	0.2	200[3]	0.2	3,165	...		0.3	164
Manufacture and repair:—												
Sugar milling[1]	...		1.6	3,494	...		2.1	3,294	...		0.4	200
Other food, drink, ice	1.3	2,580	1.2	2,591	1.4	1,792	1.3	1,998	1.2	788	1.1	593
Wood working	1.2	2,327	1.3	2,699	1.7	2,156	1.4	2,286	0.3	171	0.8	413
Textiles and apparel	7.0	13,453	6.8	14,465	3.5	4,562	3.3	5,335	14.0	8,891	17.2	9,130
Metals, machinery, vehicles	2.9	5,507	2.5	5,293	4.3	5,506	3.3	5,242	...	1	0.1	51
Petroleum refining	...	3	2.2	4,708	...	3	2.9	4,557	...	—	0.3	151
All other	0.9	1,815	2.2	4,638	1.3	1,620	2.5	3,970	0.3	195	1.3	668
Total manufacture	13.4	25,685	17.8	37,888	12.2	15,639	16.7	26,682	15.8	10,046	21.2	11,206
Construction[7]	4.0	7,632	10.1	21,612	5.9	7,624	13.2	21,184	...	8	0.8	428
Transport[4]	6.0	11,478	6.0	12,780	8.6	11,018	7.6	12,113	0.7	460	1.3	667
Commerce	8.0	15,305	8.8	18,842	8.0	10,317	7.9	12,613	7.8	4,988	11.8	6,229
Professional and recreational services	2.7	5,242	4.0	8,583	2.3	2,986	3.0	4,807	3.5	2,256	7.1	3,776
Public service	1.5	2,905[8]	8.2	17,565	2.1	2,716[8]	10.1	16,147	0.3	189[8]	2.7	1,418
Personal service	12.8	24,723	10.6	22,565	2.3	3,017	3.1	5,045	34.1	21,706	33.1	17,520
Other and ill-defined	1.7	3,236	3.6	7,719	2.1	2,644	4.4	7,080	0.9	592	1.2	639
Total gainfully occupied	100.0	192,240	100.0	213,093	100.0	128,491	100.0	160,137	100.0	63,749	100.0	52,956

[1] Sugar milling is grouped with Manufacturing in 1946 but, in 1931 sugar planting and sugar milling were not shown separately.

[2] Includes Petroleum refining in 1931. In 1946 there were 704 males and 85 females in Quarrying; and 55 males and 4 females shown as Mining. The remainder were all in Oil and Pitch Mining.

[3] Government forestry only.

[4] Includes post office.

[5] 1931 figures include 2,382 male and 1,090 female "proprietors" in unspecified industries which may be non-agricultural.

[6] Cocoa growing only, in 1946. Only 41 persons were in coffee growing.

[7] Includes jobbing carpentry.

[8] Includes law, excludes education and post office.

There were only small changes in the other manufacturing industries shown. The only industry group apart from Agriculture in which there was a sizeable decline was Personal Service where male employment increased but employment among females (most of whom were domestic servants) fell.

Characteristics of the Economically Active Population, 1946–1960

More precise and detailed comparisons can be made between the census data for 1946 and 1960. However, the classification of the economically active population in 1960 was done to the *working population,* comprising persons who worked for any length of time in the twelve months preceding the census enumeration. An adjustment to the 1946 "gainfully occupied" population by excluding persons who did not work during this period but are shown as seeking work[3] makes the 1946 data comparable with the 1960 census.[4]

Type of Worker

The significant change as regards *type of worker* (paid employee, employer, own account worker, unpaid family worker, learner) between 1946 and 1960 is that the number of paid employees and employers increased, whereas own account workers and unpaid family workers, taken together hardly changed for males and fell in the case of females. For females there is a steep fall in own account workers and a corresponding rise in the number of unpaid family workers which might be due to some inconsistency in classification in the two sensuses. (Table 5G).

As a proportion of the working population, both paid employees and employers increased. Unpaid family workers also increased, but own account workers declined significantly. Taken together, paid employees and employers increased for both males and females while own account workers and unpaid family workers (taken together) fell.

Of the usual characteristics of the economically active population, the *Type of Worker* (Paid Employee, Employer, Own Account Worker,

[3]"Persons seeking their first job" are excluded from the 1946 *gainfully occupied* population, and hence it is only those persons "seeking work" who had previously worked who need to be deducted.

[4]There are, in addition, some minor differences in detail between the 1946 and 1960 definitions. For example, the 1946 census included *subsistence farmers* with the economically active while they were not so included in 1960. Again, all inmates of prisons, leprosaria and similar institutions were excluded from the 1960 economically active population, but some of these inmates were included in 1946. These differences are in all cases marginal, however, and do not preclude a comparison of the two sets of data. (See Harewood, 1963).

Unpaid Family Worker) probably provides the best indicator of the *quality* of employment in a developing country. This is because in the absence of unemployment and social security benefits, persons who are unable to obtain employment as paid employees at reasonable incomes are often forced into low earnings self-employment. In addition, a significant number of family members (mainly wives and children) of small farmers and persons engaged in petty business on their own account are likely to be recorded as *unpaid family workers* since, in the absence of alternative employment, they spend some time assisting in the family farm or business. The two groups *Own Account Worker* and *Unpaid Family Worker* therefore serve in some measure to disguise unemployment by adding to the pool of low-income, low-productivity workers. Some indication of the relative level of income of the various *types of worker* in the interval 1946–60 is given by figures available for November 1957,[5] showing for each *type of worker* the proportion who received an income of $600 a year or more. These figures (Table 5G Cols. 9 & 10) confirm that the proportion of workers with an income of $600 or more per year was appreciably lower for own account workers than for paid employees.

In the light of the above, the very significiant decline between 1946 and 1960 in the proportion of the male and female working population who were own account workers or unpaid family workers is evidence of some improvement in the *quality* of employment available, as well as a probable growing unwillingness on the part of the population to engage in low-income self-employment.

Industry

The most important change in the industry structure of the working population in the interval 1946–60 (Table 5H) has been the continued decline in the importance of Agriculture for both males and females. In the case of males, not only did the proportion of the working population in Agriculture decline, but the actual numbers as well, from 47,000 to 44,100. But the decline in this inter-censal interval is extremely small as compared with the decline in the preceding interval 1931–46 already

[5] A series of Labour Force Surveys was carried out by the Central Statistical Office in November of each of the years 1955–57. In these surveys, income data were collected from all persons with jobs being: *total earnings* in the case of paid employees, and *gross-receipts* from own account workers and employers. In the case of own account workers and employers it was decided, after some research, to treat as having a net income of less than $600 a year (i.e. the low income group): (a) all workers with a gross income of less than $600; plus (b) one-half of the workers with a gross income of between $600 and $1,200 a year. See Harewood (1960).

discussed. Moreover, the decline is also very small as compared with the other Commonwealth Caribbean territories which undertook censuses in 1946 and 1960. Thus, while employment in Agriculture (both sexes) declined by about 2 per cent in Trinidad and Tobago, in the case of Barbados, Guyana and the Windward Islands the decline was 10–15 per cent, and for the Leewards there was a 29 per cent decline in the interval 1946–60. Also, while female employment in Agriculture increased very slightly (about 5 per cent), it declined by 17 per cent in Barbados, 27 per cent in the Windwards, and by as much as 40 per cent in Guyana and the Leewards.

TABLE 5G. WORKING POPULATION BY TYPE OF WORKER[a], 1946 AND 1960 AND SHOWING THE PROPORTION OF WORKERS EARNING $600 OR MORE PER YEAR IN 1957

Type of worker	Numbers			
	Male		Female	
	1946	1960	1946	1960
	(1)	(2)	(3)	(4)
Total	157,031	193,607	52,374	68,963
Paid employee[b] ...	115,229	148,185	31,952	49,816
Employer ...	2,821	6,110	271	741
Own account worker	33,581	33,364	17,382	12,903
Unpaid family worker	2,516	3,614	1,183	4,208
Learner[b] ...	2,884	2,334	1,585	1,295

Type of worker	Proportions				Proportion of workers earning $600 or more per year in 1957	
	Male		Female			
	1946	1960	1946	1960	Male	Female
	(5)	(6)	(7)	(8)	(9)	(10)
Total	100.0	100.0	100.0	100.0	63.7	26.0
Paid employee[b] ...	73.4	76.5	61.0	72.2	73.3	35.4
Employer ...	1.8	3.2	0.5	1.1	54.8	36.5
Own account worker	21.4	17.2	33.2	18.7	32.0	14.0
Unpaid family worker	1.6	1.9	2.3	6.1	—	—
Learner[b] ...	1.8	1.2	3.0	1.9	—	—

[a]The "Not Stated" have been distributed in the same proportion as the remaining working population.

[b]For 1946, *Learners*, whether paid or not, were grouped together. Paid Learners have therefore been included in the group *Learner* for 1946 but are included with *Paid Employees* for 1960. Since the number of *Learners* are, in any case, very small as compared with *Paid Employees*, the error does not affect the general picture.

TABLE 5H. WORKING POPULATION BY INDUSTRY GROUP[a], 1946 AND 1960 SHOWING THE PROPORTION OF WORKERS EARNING $600 OR MORE PER YEAR IN 1957

Industry group	Numbers			
	Male		Female	
	1946	1960	1946	1960
	(1)	(2)	(3)	(4)
Total – All Industries ...	157,031	193,607	52,374	68,963
Agriculture, forestry, fishing and hunting ...	46,799	44,121	10,740	11,362
Mining and quarrying ...	6,607	12,504	128	339
Manufacturing ...	28,628	36,093	11,358	9,899
Construction	22,589	29,031	423	1,026
Commerce	12,578	23,471	6,208	11,509
Transport, storage and communications ...	12,002	15,140	667	1,133
Services	27,828	33,247	22,850	33,695

Industry group	Proportions				Proportion of workers earning $600 or more per year in 1957	
	Male		Female			
	1946	1960	1946	1960	Male	Female
	(5)	(6)	(7)	(8)	(9)	(10)
Total – All Industries ...	100.0	100.0	100.0	100.0	63.7	26.0
Agriculture, forestry, fishing and hunting ...	29.8	22.8	20.5	16.5	26.3	4.7
Mining and quarrying ...	4.2	6.5	0.2	0.5	94.6	...*
Manufacturing ...	18.2	18.6	21.7	14.3	70.4	25.9
Construction	14.4	15.0	0.8	1.5	81.7	54.0
Commerce	8.0	12.1	11.9	16.7	68.3	49.3
Transport, storage and communications ...	7.7	7.8	1.3	1.6	86.2	...*
Services	17.7	17.2	43.6	48.9	80.7	28.7

...*Too few persons in this group to permit satisfactory classification by income

[a]The 'Not Stated' have been distributed in the same proportion as the remaining population. For 1946, a miscellaneous group headed 'Odd Jobs' comprising 5,828 Males and 496 Females were redistributed among the groups: Manufacturing, Construction and Services.

This relatively small decline in Trinidad and Tobago stems from the fact, already discussed, that the level of Agricultural employment in Trinidad and Tobago in 1946 was unusually low because of the shift of workers out of Agriculture during the period of labour shortage during World War II. Among the major export crops, there was a decline in male employment in sugar planting from 16,700 to 15,400 while the female employment remained unchanged. There were small increases in the other smaller export crops coffee, bananas, citrus and cocoa, but these were offset by a fall in employment in coconuts. Among the non-export crops, the largest decline was in Mixed Farming (including mixed vegetables) which decreased from 15,500 to 13,100 for males, but increased marginally for females. There were small declines in most other crops, while there were very small increases in the numbers in poultry and livestock and fishing.

Among the non-Agricultural industries, for males there were significant increases in the numbers, but only slight changes in the proportion of the working population in the groups: (a) Manufacturing; (b) Construction; (c) Transport and Communications; and (d) Services. There were, however, significant increases in the proportions engaged in Mining and Quarrying and in Commerce. For females, Manufacturing is the only industry group in which the numbers engaged fell in the inter-censal interval and hence the decline in the proportion engaged is much more than the decline in Agriculture. On the other hand, there were significant increases in the proportions engaged in Commerce and in Services.

It has been pointed out that the decline in female employment in Manufacturing is more than accounted for by the fall in employment in Dressmaking[6]. Thus, while the industry group sustained a fall of 1,500 in female employment, the decline in Dressmaking was 4,200 (from 8,800 to 4,600). Also, while male employment in Manufacturing increased there was a significant fall in employment in the Clothing industry while the two most important industries – Sugar Refining and Petroleum Refining – both had significant increases in employment.

While the number of males employed in the Services industry increased, an important point which emerges from a comparison of the detailed industries in this group is that nearly one-third of the male workers in Services in 1946 were in the Armed Forces[7] (8,600). In 1960

[6]See Harewood (1972)
Note:, however, that this paper deals with the working population 15 years old and over and hence the figures differ slightly from those quoted in this Chapter which cover 10 years and over.

[7]The Industry "Armed Forces" relates not only to officers and other ranks, but also to civilian workers working for the Armed Forces. In 1946, of the 8,600 males in the Armed Forces, only 2,400 were military personnel.

only seven persons were classified in the Armed Forces. The disappearance of the Armed Forces by 1960 therefore masks the very considerable increase in employment in the remainder of the Services group. If the figures for the Armed Forces were left out of both figures, then the number of males in Services would have increased by 70 per cent in the period 1946–60. Though the number of females in the Armed Forces was very much smaller (600) the disappearance of this industry almost entirely accounts for the fall in the numbers in the group.

Somewhat surprising in the case of females in the Services group is that while the number of Domestic Servants (plus Own Account laundresses) fell very appreciably in the other Commonwealth Caribbean territories in the interval, the number increased very slightly in Trinidad and Tobago. It has been argued that this is largely because of the immigration of females from the neighbouring smaller islands; in 1960 more than one-third of the domestic servants in Trinidad and Tobago were from the neighbouring Commonwealth Caribbean islands. The separate industries in the group Services in which the number of female workers increased appreciably were: Domestic Servants *(excluding* Own Account Laundresses), Education, Hotels, Restaurants etc., Public Administration, and "Other" Personal Service; while those with large declines were: Laundries and the Armed Forces.

The Current Labour Force – Structure and Trends

For an analysis of more recent trends in economic activity the 1970 Census may be used. However, since 1963, the Central Statistical Office has carried out a Continuous Sample Survey of Population (C.S.S.P.) from which an unbroken and consistent body of labour force data is available for the period 1965–1971[8].

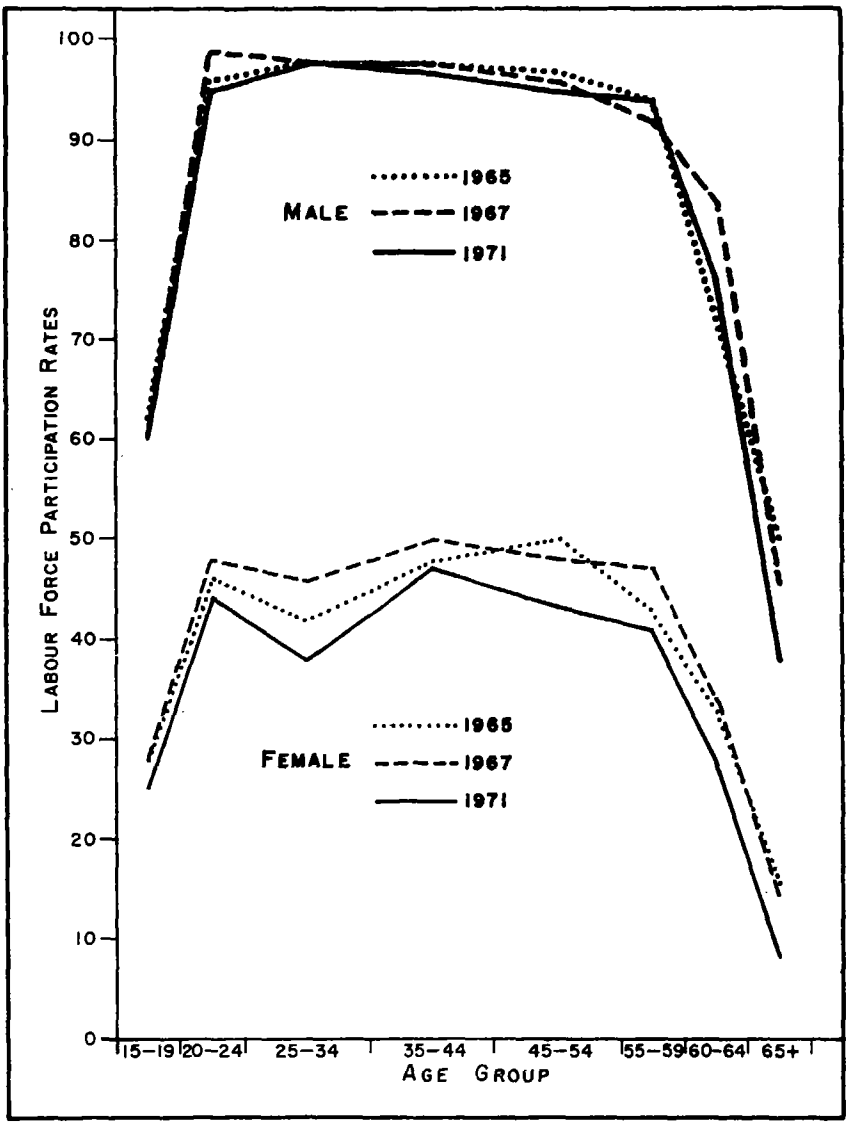
The data for the separate rounds – January–June and July–December of each year, indicate a tendency for the level of labour force participation to increase and the rate of unemployment to decline very slightly during the first half of the year which is the time of the sugar cane crop season. (Table 5J).

From the average figures (percentages) for each year (C.S.O. 1973), some interesting observations can be made[9]. First of all, for the adult

[8]Although the C.S.S.P. was started in May 1963, the first three rounds, covering the period until the end of 1964 were largely experimental. Moreover for the first two rounds data for Tobago are not available because of the hurricane there in September 1963. The C.S.S.P. was temporarily stopped for the period mid–1971 to end –1972. For a full discussion of the C.S.S.P. see Harewood (1968).

[9]Since the estimated numbers in the labour force etc. are based on the estimated population at the time, and since these estimates are now under review, this section is restricted to the percentages which are affected to a lesser extent.

DIAGRAM 5.2 LABOUR FORCE PARTICIPATION RATES, 1965, 1967, 1971



non-institutional population 15 years old and over, labour force participation has been declining except for 1967 when there was an increase. (Table 5K). In the case of males, there was a decline in participation in 1968 but since then the rate has remained unchanged. Among females, however, after an increase in participation in 1967 there has been a steady decline which appears to be a reversal of the trend observed in the 1946–60 inter-censal period. Moreover, despite some slight variations during the period, by 1971 the participation rate for females was lower for every age group than it was in 1965; the fall being largest for women aged 45–54 years and those 60 years old and over as well as for younger women 25–34 years of age. The only significant declines for males were among the very young (15–19 years) and the older persons (60 years and over).

While the censuses of population tend to under-enumerate female own account and unpaid family workers, particularly those in Agriculture, as compared with the more thorough enumeration of the sample surveys, it has been found that in the case of Trinidad and Tobago the differences in the size and structure of the labour force derived from these two sources are negligible (Harewood, 1965). At the same time, the differences that do exist prevent direct comparison of the census and the C.S.S.P. data without introducing certain adjustments. This is not felt to be necessary here and instead of seeking to relate the C.S.S.P. data to that of the earlier censuses of population these more recent data are here used merely to indicate short-term trends in the period 1965–71.

TABLE 5J. NON-INSTUTIONAL POPULATION AGED 15 YEARS OLD AND OVER AND LABOUR FORCE BY EMPLOYMENT STATUS

Period (Round)	Six months ended	Labour Force			Not in labour force	Persons with jobs *plus* persons without jobs and seeking work		Persons without jobs and seeking work as a % of Col. (5)
		Persons with jobs	Unemployed: Persons without jobs and seeking work	Unemployed: Other unemployed		Numbers	As a % of population 15 yrs. old and over	
		(1)	(2)	(3)	(4)	(5)	(6)	(7)
13	31.12.69	314,900	33,300	12,700	234,500	348,200	58	10
14	30. 6.70	320,400	35,700	10,100	235,700	356,000	59	10
15	31.12.70	313,900	36,700	10,400	239,300	350,600	58	10
16	30. 6.71	321,400	34,800	11,600	243,100	356,200	58	10
19	30. 6.73	324,100	33,000	18,900	251,400	357,100	57	9
20	31.12.73	323,000	41,700	24,300	246,500	364,700	57	11

TABLE 5K. LABOUR FORCE (PERCENTAGES) BY AGE–GROUP AND SEX, 1965–1971

Age group	Both sexes (%)		Male (%)		Female (%)	
	Labour force as a (%) of non-institutional population 15 years old and over	Unemployed as a (%) of labour force	Labour force as a (%) of non-institutional population 15 years old and over	Unemployed as a (%) of labour force	Labour force as a (%) of non-institutional population 15 years old and over	Unemployed as a (%) of labour force
	(1)	(2)	(3)	(4)	(5)	(6)
Total all ages						
1965 ...	63	14	87	12	40	16
1966 ...	63	14	87	13	38	16
1967 ...	64	14	86	13	41	17
1968 ...	62	14	84	14	40	16
1969 ...	62	14	84	12	38	16
1970 ...	60	12	84	11	37	17
1971 ...	60	13	84	10	35	18
15–19						
1965 ...	44	34	62	33	28	38
1966 ...	46	31	63	30	27	33
1967 ...	44	34	60	32	28	42
1968 ...	42	33	58	32	26	33
1969 ...	42	28	60	27	25	32
1970 ...	43	30	60	28	26	36
1971 ...	43	30	60	28	25	36
20–24						
1965 ...	70	21	96	20	46	23
1966 ...	68	25	94	22	42	30
1967 ...	70	22	99	19	48	26
1968 ...	71	22	98	22	48	24
1969 ...	71	21	94	20	46	24
1970 ...	72	20	96	17	46	24
1971 ...	72	20	95	16	44	29
25–34						
1965 ...	70	12	98	10	42	14
1966 ...	69	12	98	10	40	14
1967 ...	71	12	98	10	46	16
1968 ...	70	14	98	12	46	16
1969 ...	71	12	98	10	46	16
1970 ...	68	10	98	8	40	15
1971 ...	68	9	98	7	38	15
35–44						
1965 ...	73	6	98	5	48	10
1966 ...	73	8	97	7	49	10
1967 ...	73	8	98	8	50	8
1968 ...	72	9	96	8	48	12
1969 ...	72	8	98	6	49	10
1970 ...	72	7	98	6	48	10
1971 ...	72	6	97	3	47	10

TABLE 5K. LABOUR FORCE (PERCENTAGES) BY AGE-GROUP AND SEX, 1965–1971 – CONTINUED

Age group	Both sexes (%)		Male (%)		Female (%)	
	Labour force as a (%) of non-institutional population 15 years old and over	Unemployed as a (%) of labour force	Labour force as a (%) of non-institutional population 15 years old and over	Unemployed as a (%) of labour force	Labour force as a (%) of non-institutional population 15 years old and over	Unemployed as a (%) of labour force
	(1)	(2)	(3)	(4)	(5)	(6)
45–54						
1965 ...	74	7	97	7	50	8
1966 ...	72	7	96	8	46	6
1967 ...	72	9	96	8	48	10
1968 ...	70	8	96	7	44	11
1969 ...	70	6	96	4	44	8
1970 ...	72	6	96	4	46	11
1971 ...	70	6	95	4	43	11
55–59						
1965 ...	69	5	94	4	43	4
1966 ...	68	4	93	4	44	6
1967 ...	71	6	92	7	47	8
1968 ...	67	6	90	6	40	8
1969 ...	67	6	92	6	39	5
1970 ...	70	4	94	4	40	5
1971 ...	70	5	94	5	41	5
60–64						
1965 ...	53	8	72	8	33	6
1966 ...	61	4	85	4	33	2
1967 ...	61	6	84	6	34	2
1968 ...	54	10	80	12	32	8
1969 ...	52	7	78	8	26	2
1970 ...	54	4	83	6	28	2
1971 ...	54	8	76	7	28	10
65+						
1965 ...	30	5	50	8	16	–
1966 ...	27	4	44	6	15	2
1967 ...	23	8	46	16	15	2
1968 ...	28	8	40	9	16	5
1969 ...	24	10	38	12	12	2
1970 ...	24	6	38	6	12	4
1971 ...	22	4	38	5	9	4

TABLE 5L. LABOUR FORCE (PERCENTAGES) BY SEX AND INDUSTRIAL GROUP, 1965–1971

Industrial group	Both sexes (%)			
	Unemployed as a (%) of labour force	Proportions (%) of		
		Labour force	Persons with jobs	Total unemployed
	(1)	(2)	(3)	(4)
Total all industries				
1965	14	100	100	100
1966	14	100	100	100
1967	14	100	100	100
1968	14	100	100	100
1969	14	100	100	100
1970	12	100	100	100
1971	13	100	100	100
Agriculture, forestry, hunting and fishing				
1965	6	22	24	9
1966	4	20	22	6
1967	6	20	22	9
1968	6	20	22	9
1969	5	22	24	10
1970	6	22	24	10
1971	5	21	22	8
Mining, quarrying and manufacturing				
1965	9	18	19	12
1966	14	29	19	20
1967	12	20	20	16
1968	14	17	18	16
1969	12	18	18	16
1970	11	20	21	18
1971	10	19	20	16
Construction (including electricity, gas and water)				
1965	26	14	12	24
1966	26	14	12	24
1967	28	14	11	26
1968	26	14	12	26
1969	22	14	13	24
1970	21	17	13	24
1971	21	16	15	28

TABLE 5L. LABOUR FORCE (PERCENTAGES) BY SEX AND INDUSTRIAL GROUP, 1965–1971 – CONTINUED

Industrial group	Both sexes (%)			
	Unemployed as a (%) of labour force	Proportions (%) of		
		Labour force	Persons with jobs	Total unemployed
	(1)	(2)	(3)	(4)
Commerce				
1965	8	16	16	10
1966	10	16	16	12
1967	10	16	16	10
1968	9	14	16	10
1969	8	14	15	8
1970	8	13	14	8
1971	7	13	14	7
Transport and communication				
1965	8	8	8	4
1966	6	8	8	2
1967	10	7	8	6
1968	10	7	7	4
1969	8	7	7	4
1970	18	6	6	4
1971	10	6	6	5
Services				
1965	12	21	22	18
1966	8	22	24	14
1967	12	22	24	18
1968	12	24	24	18
1969	10	22	24	18
1970	8	20	21	14
1971	8	22	23	14
Never-worked				
1965	100	3	–	22
1966	100	3	–	2
1967	100	2	.	17
1968	100	4	.	18
1969	100	2	.	21
1970	100	3	.	22
1971	100	3	.	22

TABLE 5M. LABOUR FORCE (PERCENTAGES) BY SEX AND OCCUPATIONAL GROUP, 1965–1971

Occupational group	Both sexes (%)			
	Unemployed as a (%) of labour force	Proportions (%) of		
		Labour force	Persons with jobs	Total unemployed
	(1)	(2)	(3)	(4)
Total all occupations				
1965	14	100	100	100
1966	14	100	100	100
1967	14	100	100	100
1968	14	100	100	100
1969	14	100	100	100
1970	12	100	100	100
1971	13	100	100	100
Professional and technical worker				
1965	2	4	6	—
1966	2	5	6	1
1967	4	6	6	2
1968	4	6	7	2
1969	2	6	6	—
1970	—	6	6	—
1971	1	6	7	—
Administrative, executive, managerial and clerical worker				
1965	7	10	10	5
1966	6	10	10	4
1967	9	9	10	6
1968	8	9	10	4
1969	6	10	11	4
1970	7	10	10	6
1971	6	10	10	5
Commercial, financial and insurance worker				
1965	8	9	9	5
1966	9	10	10	6
1967	10	10	10	7
1968	9	10	10	6
1969	8	8	10	6
1970	8	8	9	6
1971	6	8	8	3
Farmer, fisherman, hunter, logger and forest worker				
1965	5	21	23	8
1966	4	18	20	6
1967	6	20	21	8
1968	7	20	22	9
1969	6	20	22	9
1970	6	22	23	10
1971	5	19	21	7

TABLE 5M. LABOUR FORCE (PERCENTAGES) BY SEX AND OCCUPATIONAL GROUP, 1965–1971 – CONTINUED

Occupational group	Both sexes (%)			
	Unemployed as a (%) of labour force	Proportions (%) of		
		Labour force	Persons with jobs	Total unemployed
	(1)	(2)	(3)	(4)
Craftsman, production, process worker and labourer N.E.C. (including mining and quarrying)				
1965	10	18	18	14
1966	16	20	19	22
1967	12	18	19	15
1968	16	18	18	14
1969	12	18	18	17
1970	11	20	20	18
1971	12	20	20	18
Worker in transport and communication				
1965	9	8	9	6
1966	7	8	8	4
1967	9	6	7	4
1968	8	6	7	4
1969	10	6	6	4
1970	10	6	6	4
1971	8	5	6	4
Worker in construction				
1965	28	10	8	21
1966	26	12	10	22
1967	30	14	12	28
1968	26	14	13	26
1969	22	14	13	23
1970	22	14	14	25
1971	22	17	15	29
Service Worker				
1965	15	16	16	18
1966	12	15	16	14
1967	14	14	14	13
1968	14	14	14	14
1969	14	14	14	14
1970	11	12	12	10
1971	12	12	13	12
Never worked				
1965	100	3	–	22
1966	100	3	–	22
1967	100	2	.	18
1968	100	2	.	18
1969	100	2	.	22
1970	100	3	.	22
1971	100	3	.	22

The industrial and occupational structure of the population with jobs (Table 5L and 5M) show no striking changes in the period 1965–71. In the case of industry, the slight variations in the proportions from year to year can well be accounted for by sampling error. However, because of the consistency of the change there is a possibility of a slight decline in the relative importance of Commerce and of Transport and Communication, but the decline is very small. The occupational classification appears to confirm a slight decline in the importance of Transport and Communication Workers, while there is evidence here of a fairly significant increase in Construction workers, this group comprising 14–15 per cent of persons with jobs in 1970–71 as against 8–10 per cent in 1965–66. Among the occupations, there also appears to be a slight decline in the proportion of workers in Service occupations.

The analysis by type of worker (Table 5N) suggests a slight increase in the proportion of workers who were paid employees, balanced by a slight fall in the proportion who were own account workers. This table also shows that 74–83 per cent of the persons with jobs worked for 33 hours per week or more and that the proportion has been tending to increase. The proportion working 33 hours or more was highest for employers (90 per cent in 1970–71) and paid employees (88 per cent in 1970–71), but was much lower for own account workers (71 per cent in 1971) and unpaid family workers (55 per cent in 1971). As many as one-fifth of the unpaid family workers worked for 16 hours or less in the survey week.

The rate of unemployment[10] after remaining unchanged at 14 per cent from 1965 to 1969 was very slightly lower in 1970 and 1971 (12 and 13 per cent respectively). Throughout the period the rate of unemployment of women was somewhat higher than that of men and this differential increased toward the end of the period, the female rate increasing since 1969 while the male rate has been declining.

Unemployment was particularly high among young persons, being on average about one-third of the labour force for those 15–19 years old and one-fifth for those 20–24 years of age. On the other hand, for persons 35 years old and over the unemployment rate was for the most part under 8 per cent. Young persons under 25 years of age comprised 32 per cent of the labour force but 62 per cent of the unemployed. Unemployment was also particularly high among persons with a middle

[10] For a definition of *unemployment* see the "Definition of Terms Relating to Economic Activity" at the end of this Chapter.

TABLE 5N. PERSONS WITH JOBS (PERCENTAGES) BY SEX, TYPE OF WORKER AND HOURS WORKED, 1965–1971

Type of worker	Both sexes (%)				
	For each type of worker the proportion of persons who worked during survey week				Each type of worker as a proportion of total
	Total persons	1–16 hours	17–32 hours	33 hours and more	Total persons with jobs during survey week
	(1)	(2)	(3)	(4)	(5)
Total all types					
1965	100	9	16	74	100
1966	100	10	15	76	100
1967	100	9	16	74	100
1968	100	8	16	76	100
1969	100	7	13	80	100
1970	100	6	12	82	100
1971	100	5	12	83	100
Paid employee					
1965	100	6	13	81	67
1966	100	6	12	82	70
1967	100	6	13	81	70
1968	100	6	11	83	70
1969	100	4	9	86	70
1970	100	4	8	88	70
1971	100	3	9	88	75
Unpaid worker					
1965	100	22	25	52	11
1966	100	22	30	48	10
1967	100	22	31	46	10
1968	100	22	36	42	11
1969	100	20	40	40	12
1970	100	18	34	49	12
1971	100	21	24	55	9
Employer					
1965	100	3	8	88	3
1966	100	4	14	82	3
1967	100	4	9	87	4
1968	100	4	10	86	4
1969	100	2	11	87	3
1970	100	2	6	91	3
1971	100	1	9	90	3
Own account worker					
1965	100	16	22	61	18
1966	100	17	22	60	18
1967	100	16	27	56	16
1968	100	11	30	58	14
1969	100	11	30	59	16
1970	100	10	24	66	15
1971	100	8	21	71	13

level of education, i.e. those who had attained Standards 3–5 which is the equivalent of about 5–7 years of primary schooling (11–14 per cent unemployed), those who reached Standards 6–7, the equivalent of more than 7 years primary but no secondary schooling (15–18 per cent unemployed) and those who attended but did not complete secondary school (17–20 per cent unemployed on average.) Moreover, these three educational attainment groups, which contained 80 per cent of the total labour force in 1971 comprised 95 per cent of the unemployed.

The indications are, therefore, that the unemployment problem is to a large extent a problem of youth and associated with the level of education – people with little education and those with completed secondary education or higher having a relatively low unemployment rate. The point that unemployment is largely a problem of youth is further substantiated by the fact that the unemployment rate is very much lower among heads of households than among others: heads of households comprised 49 per cent of the labour force in 1971 but only 21 per cent of the unemployed.

Of the unemployed, about one-half had been unemployed for 3 months or less, about 14 per cent for one year or more and 22 per cent had never worked.

It is acknowledged that the problem of under-employment is more widespread than that of unemployment even though there is no generally accepted measure of this phenomenon. The C.S.S.P. identifies persons with jobs who were not at work during the survey week because no work was available. This group would certainly be included as under-employed, but the number is small – approximating 1–2 per cent of the persons with jobs.

The more usual approach is to treat as under-employed all persons who work less than some standard number of hours and who indicate that they are willing to work longer hours. While the C.S.S.P. classifies persons with jobs by the number of hours they worked in the survey week, it does not identify those working short hours who wanted to work longer hours. These figures show about 80 per cent of all workers working for 33 hours or more in the survey week, and therefore, on this basis, fully employed. Of the remaining 20 per cent, about 5 per cent are persons who worked for less than 17 hours in the survey week, and 15 per cent worked 17–32 hours. The proportion of under-employed, by the criterion of time-worked would therefore be somewhat under 20 per cent. A large proportion of persons working short hours were unpaid family workers;

of the paid employees, about 88 per cent worked 33 hours or more in the week, and less than 12 per cent would therefore be classified as under-employed.

A more realistic basis for measuring under-employment is to consider persons as under-employed if they are unable to obtain an income above some reasonable standard. In 1965, 17 per cent of the paid employees received less than $50 (TT) per month, and another 19 per cent received $50–$99 per month, so that one-third of paid employees received less than $100 per month. Of the self-employed persons, for whom gross receipts rather than net income was obtained, 46 per cent received less than $50 per month, and 16 per cent received $100–$199 per month. Assuming that persons with gross receipts of $100–$199 in fact earned less than $100 per month net income, then 81 per cent of the self-employed received less than $100 per month.

Along with 37 per cent of the paid employees, this means that of the total number of workers, 48 per cent received a monthly income of less than $100 per month. If $100 is taken as the minimum income for the worker to be considered as fully employed, then one-half of the workers were under-employed. (Harewood, 1972). In an earlier study (Harewood, 1960) using $50 per month as the standard on the grounds that unskilled workers in Government and large establishments were receiving minimum incomes not lower than this figure, it was estimated that in 1955, 44 per cent of the employed persons were under-employed.

Summary

Although a mere half-century ago this country was considered under-populated and suffering from a shortage of labour, today the opposite is true, with some evidence of over-population and much evidence of labour-surplus problems.

The number of males gainfully occupied has increased steadily since 1891. In the case of females there was an appreciable decline in the absolute number of persons economically active between 1921 and 1946. For both males and females the proportion of adults who were gainfully occupied has declined since 1891, the decline being particularly rapid since 1921. This decline in participation is partly the result of a changing age structure, but clearly too, there has been a withdrawal from economic activity among young and old persons and women.

The principal shift in the structure of the economically active population has been the decline in the importance of agriculture and related industries and occupations, with a compensating increase in the importance of construction, service and allied workers, and in petroleum and other modern activities.

Data for the recent past (1965–1971) show no spectacular changes in labour force structure. However unemployment is high – about 15 per cent of the labour force – and is most serious among young persons and persons with a middle level of education. Under-employment is also a major problem, and there appears little likelihood of these problems being resolved in the very near future.

DEFINITION OF TERMS RELATING TO ECONOMIC ACTIVITY

A. The Economically Active Population

The economically active population is that part of the general population which furnishes the supply of labour for the production of economic goods and services. It includes:—

(i)	**Own account Workers**	i.e. persons working in their own business or farm, without paid assistance;
(ii)	**Employers**	i.e. persons working in their own business or farm, ***with*** paid assistance;
(iii)	**Unpaid family Workers**	i.e. persons working in a family farm or business without direct pay for their services, though they are assumed to benefit indirectly as members of the family;
(iv)	**Employees**	i.e. persons working for others and receiving wage or salary for their services.

Associated terms: "Economic activity", "work" (synonymous with "economic activity").

B. The Gainfully Occupied Population and the Labour Force

In general, one or other of two different approaches are used to identify the economically active population in censuses of population and household surveys. These are:—

(i) **The "gainful worker" approach** which classifies persons on the basis of their usual activity.

This approach is based on the idea that each person has a more or less stable functional role as a worker, a housewife, a retired person, a student etc., and that this role is largely independent of, and more important than, his activity at any given time.

Associated terms: "gainfully occupied", "gainful employment".

(ii) **The "labour force" approach** which classifies persons on the basis of their activity during a specified period (usually one week). In this approach, *economic activity* takes priority over other activities, so that a person who has been economically active for only a brief period (e.g. one day) during the survey period is nevertheless classified as in the *labour force.*

C. The Employed and the Unemployed

Since the *gainful worker* approach relates to the "usual activity" of each individual, the "employed" and "unemployed" segments of the *economically active population* is not directly obtained, and special instructions must be given for breaking down the *gainful workers* into these segments. In the present chapter, the separation of the *employed* and the *unemployed* is done only with respect to data collected using the *labour force* approach[11].

(i) **The Employed** include:

(a) all persons who worked for pay for any length of time during the survey period;

(b) persons who were temporarily absent from work because of vacation, illness, industrial dispute or some similar cause, but but who had a job to return to;

(c) persons who worked without pay for any length of time on a family farm or business or as an unpaid learner.

[11]For more detailed definitions of the above terms, see the C.S.S.P. publications of the Central Statistical Office. Note that precedence is given to *employment* so that a person who was employed for only a short period (e.g. one day) during the survey week, and was unemployed for the remainder of the survey period, is nevertheless classified as *employed.*

Associated terms: "with jobs", "at work".

(ii) **The Unemployed** include: persons who were not employed, in the above sense, and who:

(a) looked for work during the survey period;

(b) looked for work at some time during the three months preceding enumeration, but not during the survey period, and are still available for work; or

(c) did not look for work because they were on lay-off without pay, were awaiting the results of previous applications for employment, or wanted a job but did not know of any suitable vacancies.

The Data Used in the Present Chapter

While detailed definitions are not available for all of the earlier censuses, it is safe to assume that the approach in the censuses of population from 1891 to 1946 are all basically based on the *gainful worker* approach. At the 1960 census the *labour force* approach was used, but instead of a short survey period of about one week, the survey period adopted was the twelve months preceding the census enumeration. It is possible to separate from the 1946 *gainfully occupied* population those who were *economically active* during the twelve months preceding the census and therefore figures comparable with the 1960 census data can be obtained, (Harewood, 1963). In the comparison of the 1946 and 1960 census data, for the most part only persons who actually worked (were employed) at some time during the twelve months preceding the census enumeration are included. This group is referred to in this Chapter as the *working population.*

CHAPTER 6

FERTILITY AND MATING

Introduction

The level and past trends in fertility have already been described in Chapter 2. In the present chapter we discuss a number of factors related to fertility with a view to throwing some light on possible causes for past trends as well as some indication of probable future movements in the level of fertility. The factors selected for discussion are dealt with under the following headings: (a) differential fertility; (b) mating patterns; and (c) contraception.

Differential Fertility

It is well known that within any country at any given time, the level of fertility varies appreciably from one sector of the population to another. Demographers have identified a number of socio-economic characteristics which are thus related to the level of fertility, and which in fact are thought to account for the level as well as past and probably future trends in fertility. In this section we have selected a number of the more important of these factors, those for which suitable information is available, and indicate and discuss evidence of the relationship between these factors and the level and trend in fertility in Trinidad and Tobago. The characteristics dealt with are: education, union status, ethnic origin, religion, economic activity and urban/rural residence. The principal sources of data on differential fertility are: (a) the 1958 Fertility and Mating survey; (b) the 1960 and 1970 Censuses of Population; and (c) the 1970 Fertility and Family Planning Survey (Females).

Education

The 1960 Census is the source which provides a cross-classification of the level of fertility by educational attainment of women in the greatest detail, showing as it does the number of years' schooling by single years for women with only primary education, and age in 5–year age-groups up to age 64 plus the age group 65 years and over. As is shown in Table 6A, even the data in such great detail shows a clear inverse relationship between the level of fertility (average number of children ever born per

TABLE 6A. CHILDREN EVER BORN PER 1,000 WOMEN BY AGE AND EDUCATIONAL ATTAINMENT

Level of education	No. of years schooling	Age (Years)											
		15–19	20–24	25–29	30–34	35–39	40–44	45–49	50–54	55–59	60–64	65+	All ages
No education	0	625	2,545	4,218	5,373	5,865	5,676	5,585	5,307	5,224	4,816	4,937	5,036
Kindergarten	1–2	591	2,733	4,208	5,312	5,697	5,311	5,268	4,196	4,315	4,364	5,000	4,317
Standard 1	3	667	2,663	4,262	5,204	5,366	5,055	4,380	3,762	4,266	4,106	4,384	3,920
2	4	568	2,440	3,925	4,801	5,210	4,565	4,073	3,591	3,829	3,856	4,495	3,608
3	5	516	2,330	3,822	4,509	4,845	4,312	3,843	3,674	3,655	3,335	4,151	3,376
4	6	450	2,141	3,502	4,370	4,578	4,104	3,809	3,584	3,685	3,702	4,175	3,203
5	7	368	1,912	3,231	4,233	4,406	4,256	3,766	3,542	3,472	3,353	3,958	2,989
6	8	268	1,714	3,019	3,831	4,244	4,144	3,821	3,353	3,311	3,556	3,904	2,741
7	9	180	1,246	2,505	3,371	3,998	3,877	3,545	3,282	3,158	3,321	3,593	2,454
Secondary	10–13	40	560	1,502	2,358	2,908	3,057	2,667	2,357	2,548	2,398	2,915	1,128
University	14+	—	515	1,007	1,684	1,867	1,486	1,000	825	731	1,737	1,500	1,299

[1]Two small groups have been omitted: (a) Women with Elementary Education but the standard not given and (b) Women educated in a foreign country (e.g. in China) in which the level of educational attainment could not be fitted in to the above scheme.

[2]The number of years schooling are the number of years assuming, in the case of elementary education, that there was no repeating in any one class and no skipping. In fact it is known that such repeating and skipping do occur in a small number of cases. There is some over-lap at the lower end for those who attended Secondary school since it is usual for such persons to go to Secondary school after only about 7 years of Elementary schooling.

1,000 women) and the level of education. In the age groups 30–34 and 35–39 there is not a single exception to this relationship, and in all other age groups covering women under 60 years of age, including the youngest age group 15–19 in which the level of fertility is very low, there is only a single exception in each age group. These are negligible and in no way affect the obvious inverse relationship. In the two oldest age groups – 60–64 and 65 years and over – there are 2 and 3 exceptions respectively, but again these are relatively minor and do not distract from the relationship mentioned.

In the 1958 survey, Roberts and Braithwaite found that for women (a) 40–44 years, and (b) 45 years and over, those who attended primary school had a lower level of fertility than those who had not attended school, but there was no clear difference in the level of fertility of those women with 1–5 years primary schooling (1–7 years including the two years of pre-primary school as in Table 6A) and those with 6–7 years of primary schooling (8–9 years including the 2 years pre-primary schooling).

It is also possible to derive period rates from the 1960 Census data based on information on whether or not each woman had given birth to a child in the year preceding the census. Using the number of children born per 1,000 women during the year preceding the census, and classifying women according to their educational attainment into 5 categories: I – no education; II – primary schooling up to Standard 3; III – primary schooling Standards 4–5; IV – primary schooling Standards 6–7; and V – secondary schooling and higher, Roberts (*) found an inverse relationship between fertility and educational attainment except that in general, the fertility of Category II was higher than that of Category I. When he considered the number of children per 1,000 mothers, instead of per 1,000 women, however, he found a direct relationship between education and fertility for women under 25 years of age, and an inverse relationship for women 25–44 years of age. See Table 6B.

In the 1970 survey, Harewood and Abdulah sub-divided women into (a) those with education up to Standard 3, including those with no education (i.e. those with 5 years or less of primary and pre-primary education); (b) those with primary education higher than standard 3 (6–9 years) and (c) those with secondary or higher education. The survey covered women of child-bearing age, sub-divided into 5 age-cohorts: 15–19, 20–24, 25–29, 30–34 and 35–44 years. Harewood (*) found that there was a consistent inverse relationship between fertility and education based on: (i) the level of childlessness; (ii) the distribution of families by size; (iii) the children ever born per 1,000 women and (iv) the children ever born per 1,000 mothers. (See Table 6C.)

TABLE 6B. MOTHERS PER 1,000 WOMEN, CHILDREN IN YEAR PRECEDING CENSUS PER 1,000 MOTHERS AND PER 1,000 WOMEN BY EDUCATIONAL CATEGORY AND AGE
TRINIDAD AND TOBAGO, 1960

Age/education	Mothers per 1,000 women					Children per 1,000 mothers					Children per 1,000 women				
	Education*														
	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(12)	(13)	(14)
15–19	375	355	273	176	84	644	716	785	783	861	242	254	214	138	73
20–24	785	829	746	604	306	426	450	473	479	526	334	373	353	289	161
25–29	902	890	856	787	586	321	342	334	326	329	289	304	285	257	193
30–34	913	909	863	825	722	225	244	243	221	209	206	222	210	182	151
35–39	905	863	849	831	762	139	149	154	132	123	126	129	130	109	94
40–44	887	814	811	803	768	57	56	53	48	51	50	45	43	39	39

*Education
I — No education.
II — Primary schooling up to Standard 3.
III — Primary schooling Standards 4–5.
IV — Primary schooling Standards 6–7.
V — Secondary schooling and higher.

TABLE 6C. (a) NON-STUDENTS (PROPORTIONS) BY AGE, EDUCATION AND NUMBER OF CHILDREN EVER BORN
(b) CHILDREN EVER BORN PER 1,000 WOMEN AND PER 1,000 MOTHERS BY AGE AND EDUCATION

Age/education	No. of cases	Number of children ever born to non-students						CEB per 1,000 women	CEB per 1,000 mothers
		None	1	2	3	4–5	6+		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
15–19 Years									
None-Standard 3	24	67	21	8	—	—	4	283	1,875
Elementary Standard 4+	266	82	15	2	1	—	—	196	1,213
Secondary +	119	91	8	1	—	—	—	55	109
20–24 Years									
None-Standard 3	26	23	4	23	31	12	8	2,179	3,050
Elementary Standard 4+	268	34	19	21	15	9	1	1,558	2,367
Secondary +	162	67	19	9	3	1	—	503	1,585
25–29 Years									
None-Standard 3	57	10	7	4	18	37	25	4,088	4,569
Elementary Standard 4+	211	17	10	18	20	25	10	2,820	3,400
Secondary +	92	28	21	27	11	12	1	1,663	2,318
30–34 Years									
None-Standard 3+	66	5	5	6	6	26	53	5,409	5,667
Elementary Standard 4+	183	6	7	10	20	26	32	4,295	4,570
Secondary +	54	13	20	21	24	13	9	2,685	3,085
35–44 Years									
None-Standard 3+	136	3	5	7	5	18	62	6,781	6,985
Elementary Standard 4+	268	8	8	7	10	26	41	5,172	5,634
Secondary +	47	21	13	15	17	21	13	2,745	3,486

In general, then, there is clear evidence of an inverse relationship between educational attainment and fertility of women in Trinidad and Tobago, though, as will be shown in a later discussion, these fertility differentials are largely influenced by differences in mating patterns and in the practice of contraception among women at different levels of educational attainment.

Ethnic Origin

The level of fertility of women of Indian descent in Trinidad and Tobago has for a long time been appreciably higher than that of non-Indian women as a group, and more specifically than that of women of

African descent – the other major ethnic group in the country. For this reason, in studies of the demographic situation in this country, a separation of women of Indian descent from the rest of the population has often been used. [See for example: Roberts and Braithwaite (1959) and Roberts (*)]

In the case of differentials by ethnic origin information is also available from the 1946 census so that we can look at not only current differentials but how these have changed during the past 25 years or so.

Table 6D shows the children ever born per 1,000 women by age and ethnic origin according to the 1960 census for all women, as well as for a few of the larger groups. In every age group covering women 15 years old and over, the CEB rate is very much higher for women of Indian descent than for the other two groups. The CEB rate for women of African descent is higher than that for the residual group for young women under 35 years as well as for the two cohorts covering women 60 years old and over. For women 35–39 years old, the CEB rate for the residual group is higher than that for women of African descent. A further breakdown of the residual group shows that the CEB rate for women of Mixed origin is higher than that for women of African origin for women 25 years old and over, while women of Chinese and European descent have lower rates than those of African descent. On the whole, however, the differences are such as to justify particular attention being paid to women of Indian descent as being of a much higher level of fertility than those of non-Indian descent.

Table 6E shows the CEB rates for women of African and of Indian descent for the censuses of 1946, 1960 and 1970. In 1946 the differential was very much higher for women under 40 years of age as is shown by the index for Indians (Africans =100) for that year; the differential in the case of young girls 15–19 years of age was especially high (index = 271). On the other hand, for women 55 years old and over the differential in 1946 was low, the rate for women of Indian descent being 15 per cent higher than that for women of African descent for women 55–59 years old, and about 10 per cent for women 60 years and over.

By 1960, the differential had declined appreciably for women under 40 years of age. This was the net result of increases in the CEB rates of both women of African and of Indian descent, but with the former having a much larger increase. On the other hand, the differential between the two ethnic groups increased considerably for women who had completed their fertility. For example, for the age group 50–54 years, women of Indian descent had a CEB rate 70 per cent higher than that of women of African descent in 1960 as compared with only 37 per cent higher in 1946. This increased differential for women 45 years old and over re-

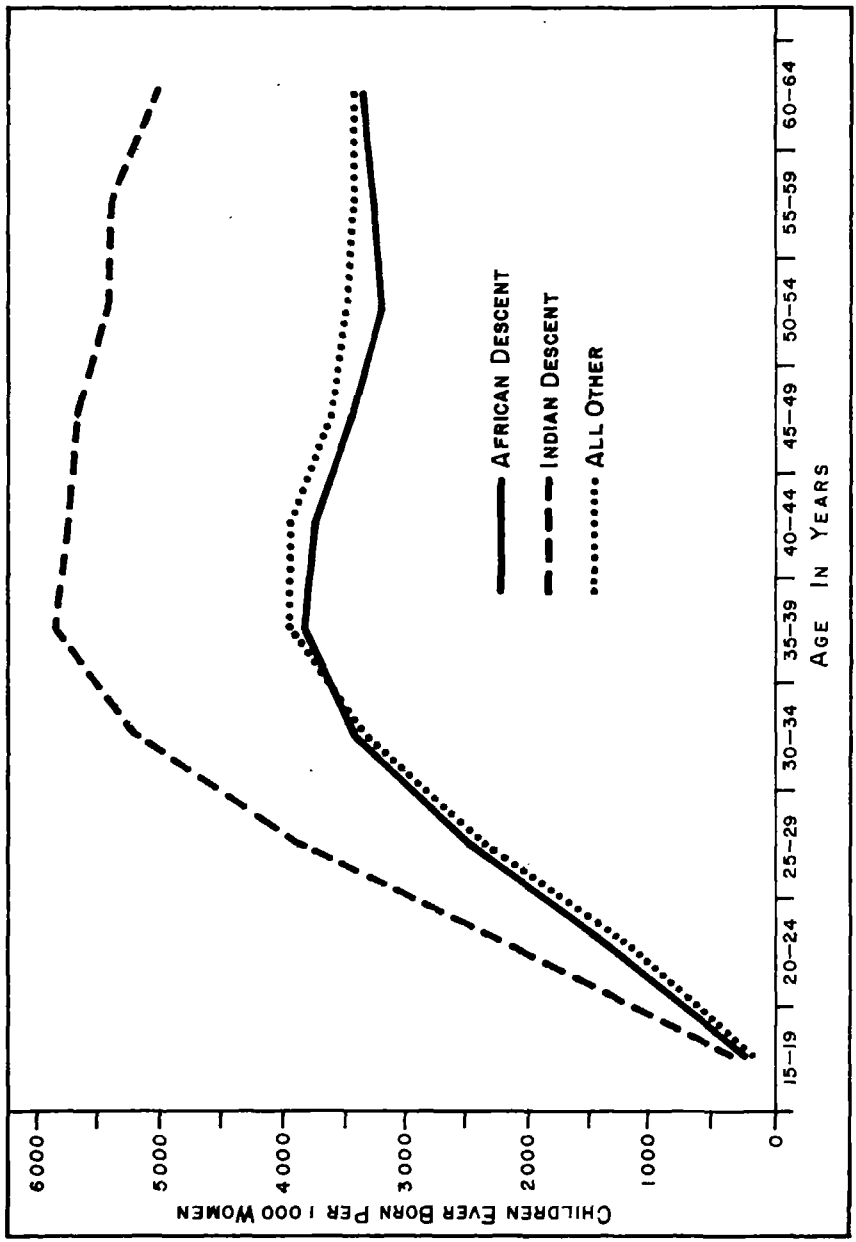
TABLE 6D. CHILDREN EVER BORN PER 1,000 WOMEN BY ETHNIC GROUP – 1960 CENSUS

Ethnic origin	Age (Years)									
	15–19	20–24	25–29	30–34	35–39	40–44	45–49	50–54	55–59	60–64
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
A. MAJOR GROUPS										
African descent	213	1,296	2,470	3,420	3,822	3,734	3,455	3,192	3,257	3,352
Indian descent	316	2,068	3,862	5,169	5,856	5,761	5,688	5,411	5,408	5,039
All other	153	1,129	2,372	3,300	3,968	3,934	3,607	3,491	3,428	3,428
B. SOME SELECTED GROUPS INCLUDED IN "ALL OTHER"										
Mixed	168	1,197	2,516	3,532	4,292	4,200	3,833	3,711	3,585	3,424
European	18	580	1,516	2,058	2,394	2,488	2,127	2,002	2,157	2,089
Chinese	38	309	2,142	2,996	3,553	3,941	3,594	3,335	3,702	3,366
C. INDIAN AND NON-INDIAN										
Indian	316	2,068	3,862	5,169	5,856	5,761	5,688	5,411	5,408	5,039
Non-indian	193	1,245	2,440	3,379	3,863	3,788	3,497	3,271	3,303	3,331

TABLE 6E. CHILDREN EVER BORN PER 1,000 WOMEN OF AFRICAN AND INDIAN DESCENT 1946, 1960, 1970

Ethnic origin		Age (Years)									
		15–19	20–24	25–29	30–34	35–39	40–44	45–49	50–54	55–59	60–64
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
African Descent:	1946	240	1,120	1,870	2,500	2,860	3,240	3,460	3,740	4,150	4,280
	1960	213	1,296	2,470	3,420	3,822	3,734	3,455	3,192	3,257	3,352
	1970	126	952	2,382	3,706	4,388	4,650	4,542	3,959	3,579	3,132
Indian Descent:	1946	650	2,180	3,390	4,290	4,800	4,980	5,120	5,130	4,810	4,760
	1960	316	2,068	3,862	5,169	5,856	5,761	5,688	5,411	5,408	5,039
	1970	134	1,310	3,114	4,744	5,862	6,380	6,342	5,949	5,644	5,080
Indian Descent (African = 100)	Index										
	1946	271	195	181	172	168	154	148	137	116	111
	1960	148	160	156	151	153	154	165	170	166	150
	1970	106	138	131	128	134	137	140	150	158	162

DIAGRAM 6.1 CHILDREN EVER BORN PER 1,000 WOMEN
BY AGE AND ETHNIC ORIGIN



flects the fact that the fertility rate of women of African descent fell between 1946 and 1960 for these older women while in every age group there were significant increases in the fertility of women of Indian descent.

The 1970 Census indicates a further diminishing of the differential between the two major ethnic groups for all age groups except the very highest. This is particularly true for women under 50 years of age. For women 50 years old and over, however, while the differential has diminished between 1960 and 1970, the 1970 differential is still a great deal larger than in 1946. As regards completed fertility which is of prime interest, the limited information suggests that the differential between the two major ethnic groups increased between 1946 and 1960 and has since reduced somewhat, though the completed fertility of women of Indian descent is still in the vicinity of 40 to 50 per cent higher than that of women of African descent.

Education and Ethnic Origin

In Chapter 4 it was pointed out that the level of education (or of literacy in the earlier censuses) was lower among the population of Indian descent than among those of African descent. Earlier in this chapter it was shown that the level of fertility has been found to be very much higher among women with less education. It is to be expected, therefore, that part of the observed difference in the level of fertility of women of the two main ethnic groups would be related to the lower level of education among Indians. Table 6F and Diagram 6.1 strongly suggest that this is the case since for all cohorts except the oldest, the education-specific fertility rates of Indian women are in most cases lower than those of women of African descent, Harewood (*). The two exceptions are for the highest education group among women 25–29 years old, and the middle education group among women 30–34 years of age.

Among women under 25 years of age, the fertility rate of women of African descent is in most cases higher than that of women of Indian origin in the same education group. For women 25–34 years old there is little difference between the two ethnic groups when account is taken of the educational attainment. For the highest age group, however, women of Indian origin have a significantly higher level of fertility in every education group.

It is unlikely that the differential trends in fertility discussed earlier would be in any way related to differential educational attainment, but there seems strong evidence that in more recent times the

TABLE 6F. CHILDREN EVER BORN PER 1,000 WOMEN BY AGE, EDUCATION AND ETHNIC ORIGIN

Age/education	Ethnic origin					
	African		Indian		All other	
	No. of cases	CEB/ 1,000 women	No. of cases	CEB/ 1,000 women	No. of cases	CEB/ 1,000 women
	(1)	(2)	(3)	(4)	(5)	(6)
15–19 Years						
None to Standard 3	11	–	22	273	3	333
Elementary Std. 4+	107	252	151	159	33	182
Secondary +	79	.63	97	52	42	48
20–24 Years						
None to Standard 3	4	2,750	22	2,136	–	–
Elementary Std. 4+	92	1,576	148	1,561	29	1,483
Secondary +	82	561	51	431	31	484
25–29 Years						
None to Standard 3	5	4,000	50	4,000	2	5,000
Elementary Std. 4+	89	2,831	93	2,742	29	3,034
Secondary +	41	1,463	25	1,568	26	2,077
30–34 Years						
None to Standard 3	5	5,600	58	5,534	2	4,000
Elementary Std. 4+	87	4,230	76	4,355	20	4,350
Secondary +	26	2,769	9	2,333	19	2,737
35–44 Years						
None to Standard 3	14	5,643	11	7,026	6	4,667
Elementary Std. 4+	156	4,987	82	5,573	30	5,033
Secondary +	26	2,808	6	3,333	15	2,400

differences in fertility may have been associated with differences in educational attainment and that as educational differences between the two ethnic groups disappear, as they have been tending to, the differences in fertility will also disappear, or at least be very greatly reduced.

Religion

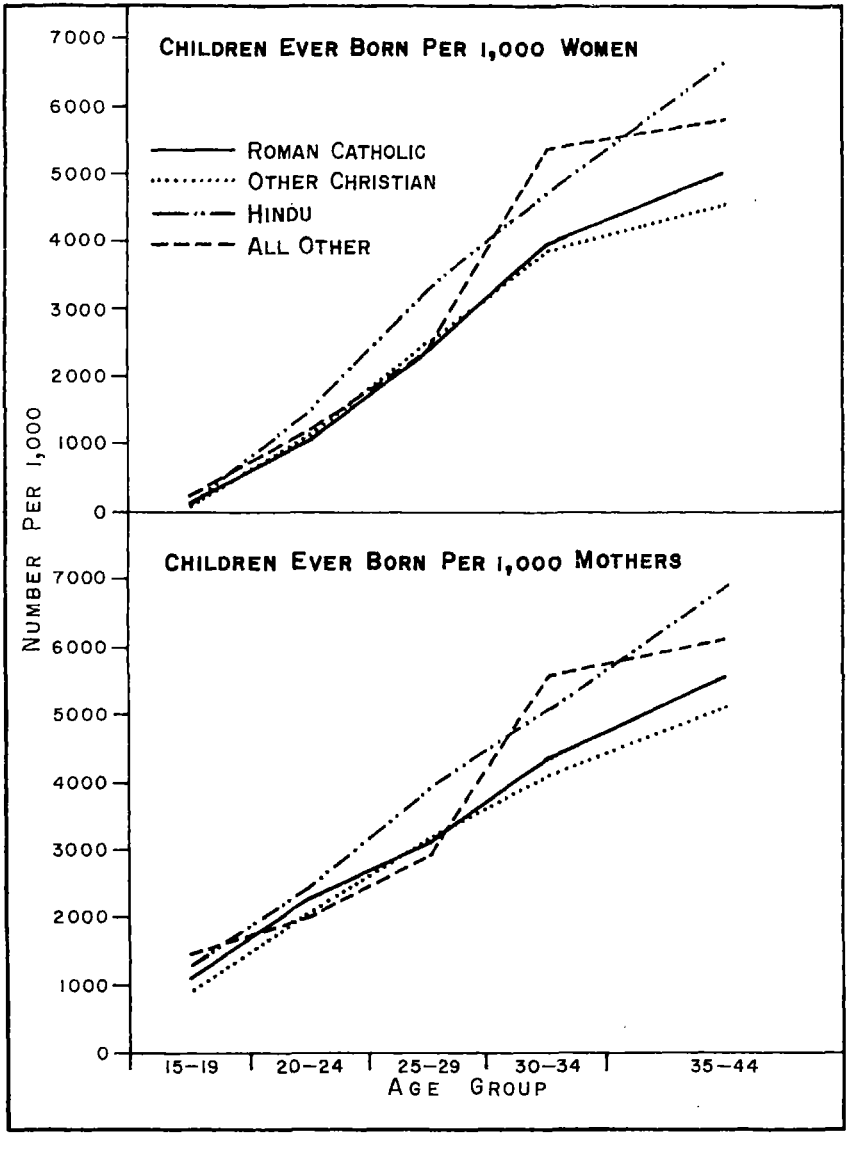
Another factor believed to contribute to fertility differentials in the country is religion. The strong opposition of the Roman Catholic church to most methods of birth control is well known. Both the Hindu and Muslim religions tend to be pro-natalist though neither specifically prohibit voluntary birth limitation. Christian denominations other than Roman Catholic are believed, on the other hand, to be more amenable to contraceptive practice.

Table 6G shows the CEB per 1000 women by age and religion as obtained at the 1960 census. The level of fertility of the two non-Christian groups is appreciably higher than that of the Christian groups throughout the age span. For the Christians, the level of fertility of Roman Catholics is slightly higher than that of Other Christians at all ages, the difference being largest for women 50–59 years old. If we sub-divide the Other Christians into Anglicans and the residual, then the fertility of Roman Catholics is about 15 per cent higher than that of Anglicans for women 55–59 years old, and about 8 per cent higher for all other age groups covering women 25 years and over. On the other hand the residual group of Christians has a CEB rate only slightly lower than Roman Catholics for women 25–29 years old, while for women of completed fertility, the residual group has a higher level of fertility for all age groups except 50–54 years. The differential between Roman Catholics and Anglicans might well reflect the known differences in attitudes and doctrine as regards the voluntary restriction of pregnancies. It seems doubtful, however, that this could explain the differential between Anglicans and Other Christians (residual), and it seems likely that this latter differential is to a large extent indicative of differences in educational attainment, the level of education of Anglicans being higher than that of the residual Christian group.

TABLE 6G. CHILDREN EVER BORN PER 1,000 WOMEN BY AGE AND RELIGION, 1960

Age/religion	Roman Catholic	Anglican	Other Christian	Hindu	Muslim	Other non-Christian
	(1)	(2)	(3)	(4)	(5)	(6)
15–19	193	206	191	357	289	281
20–24	1,309	1,275	1,272	2,274	1,972	1,657
25–29	2,595	2,389	2,556	4,128	3,861	2,095
30–34	3,574	3,308	3,542	5,442	5,351	3,473
35–39	4,087	3,774	4,085	6,032	6,305	3,122
40–44	4,000	3,754	3,909	5,892	6,341	2,878
45–49	3,660	3,419	3,821	5,729	6,421	2,679
50–54	3,494	3,192	3,338	5,459	6,166	3,437
55–59	3,522	3,052	3,553	5,529	5,873	1,757
60–64	3,409	3,110	3,765	4,926	5,839	2,000
65+	4,004	3,761	4,102	4,919	5,733	2,898

DIAGRAM 6.2 CHILDREN EVER BORN PER 1,000 WOMEN
BY AGE AND RELIGION



The differential between the non-Christian groups is interesting. The CEB rate of Hindus is higher than that of Muslims for women under 35 years of age the difference being very small for women 30–34 years of age, but that of Muslims is higher for all age groups covering women 35 years and over, the differential being appreciably higher for women of complete fertility. For women 45 years old and over, the differential between Muslim and Hindu is appreciably higher than that between Roman Catholic and Hindu except for the age group 55–59 years.

In the 1958 survey, Roberts and Braithwaite[1] also found the Muslim fertility higher than that of the Hindus for women 40–44 and 45 years and over, and commented that this differential was higher than that between Roman Catholics and Other Christians of Non-Indian origin.

The 1970 survey dealt only with women of child-bearing age. Table 6H and Diagram 6.2 show that the fertility of the two Christian groups (Roman Catholic and Other Christian) are lower than for the two non-Christian groups (Hindu and Other non-Christian) for all age-groups except the lowest (15–19 years). For women under 30 years of age there is little difference between the two Christian groups and the residual non-Christian, all of them being well below the level of fertility of the Hindu. Unlike the 1960 census, however the Roman Catholics were not found to have a higher fertility than other Christians for all age groups; in fact the fertility of Roman Catholics was lowest for women 20–24 and 25–29 years of age, but it was higher than that of Other Christians for women 30–44 years old.

Apart from the youngest age group, the fertility of Hindus was highest in all age groups except 30–34 years where that of the Other non-Christians exceeded it by nearly 15 per cent. In the age-group nearest completion of child-bearing (35–44 years) Roman Catholic fertility exceeded Other Christian by 10 per cent, and that of Hindu exceeded Other non-Christian by 11 per cent.

Education and Religion

Because of the observed strong inverse relationship between educational attainment and fertility it is useful to check whether the differentials by religion are in turn reflections of the differentials by education. This is likely to be so because of the observation, in Chapter 4, that the level of education was higher among Christian than non-Christian groups.

Table 6J and Diagram 6.3 show the CEB fertility rates for women of child-bearing age cross-classified by age, educational attainment and religion. A point that immediately stands out is that the fertility rate of

[1]Roberts and Braithwaite: op. cit.

TABLE 6H. (a) NON-STUDENTS (PROPORTIONS) BY AGE, RELIGION AND NUMBER OF CHILDREN EVER BORN
(b) CHILDREN EVER BORN PER 1,000 WOMEN AND PER 1,000 MOTHERS BY AGE AND RELIGION

Age/religion	Number of cases	Number of children ever born to non-students			CEB per 1,000 women	CEB per 1,000 mothers
		None	1–3	4+		
	(1)	(2)	(3)	(4)	(5)	(6)
15 – 19 years						
Roman Catholic	131	81	19	–	144	1,120
Other Christian	102	86	14	–	81	940
Hindu	125	86	14	–	132	1,304
All other	47	83	17	–	200	1,500
20 – 24 years						
Roman Catholic	150	53	41	7	1,072	2,310
Other Christian	130	45	50	5	1,122	2,070
Hindu	128	38	49	13	1,496	2,482
All other	43	40	56	5	1,233	2,039
25 – 29 years						
Roman Catholic	109	23	52	25	2,376	3,084
Other Christian	96	19	54	27	2,510	3,090
Hindu	117	15	39	46	3,314	3,910
All other	36	19	44	36	2,389	2,965
30 – 34 years						
Roman Catholic	106	9	41	51	3,991	4,361
Other Christian	91	6	47	47	3,868	4,093
Hindu	76	7	25	68	4,737	5,070
All other	28	4	22	75	5,357	5,555
35 – 45 years						
Roman Catholic	149	10	26	64	5,040	5,605
Other Christian	140	9	31	59	4,589	5,095
Hindu	123	2	17	81	6,694	6,861
All other	40	5	23	73	5,825	6,132

Hindus is no longer the highest in all cases. In fact, only among women in the cohort 35–44 years old who had had education above the level of Standard 3, and women in the middle education group in the cohort 25–29 years are the fertility rates of Hindus highest. Moreover, there is no longer any obvious pattern of relationship between religion and fertility when we cross-classify by educational attainment. Undoubtedly, then, much of the difference in fertility between the various religious groups is associated with differences in the level of education, and it seems reasonable to expect that a levelling of educational attainment would result

DIAGRAM 6.3 CHILDREN EVER BORN PER 1,000 WOMEN
BY AGE, EDUCATION AND RELIGION

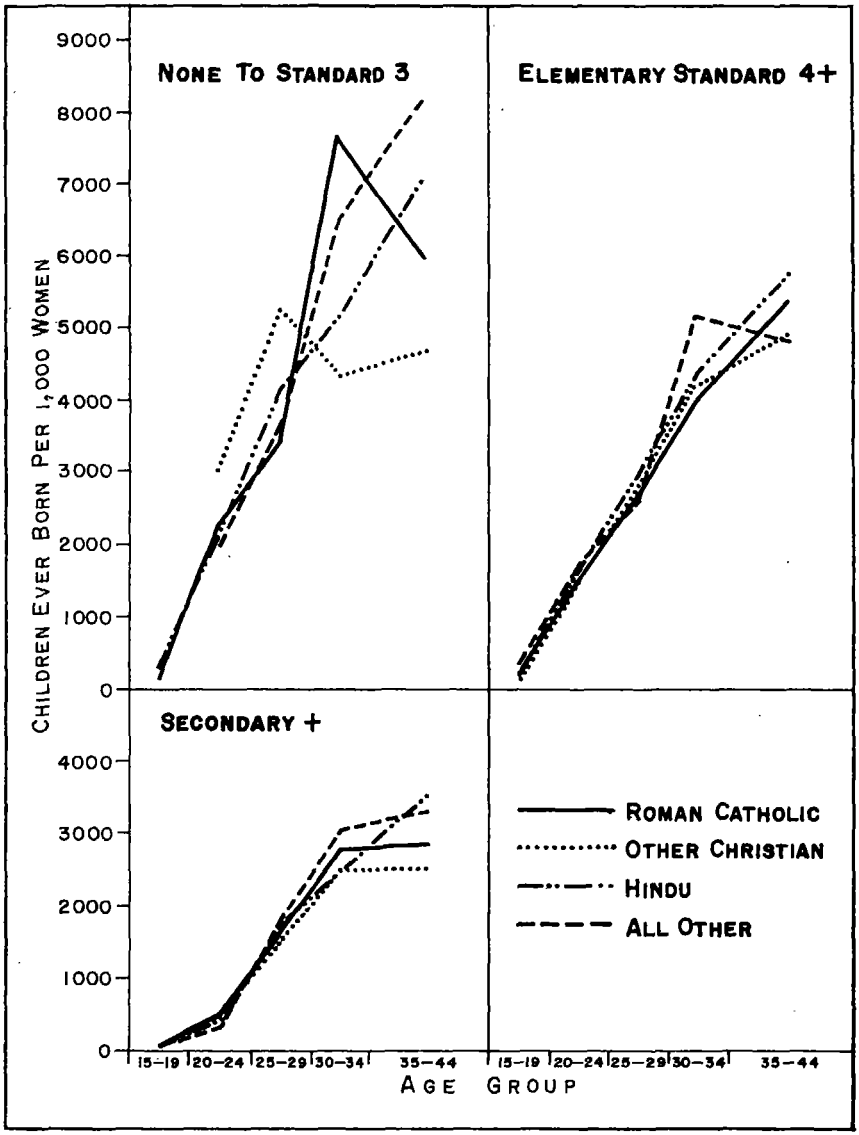


TABLE 6J. CHILDREN EVER BORN PER 1,000 WOMEN BY AGE, EDUCATION AND RELIGION

Age/education	Religion							
	Roman Catholic		Other Christian		Hindu		All other	
	No. of cases	CEB/ 1,000 women	No. of cases	CEB/ 1,000 women	No. of cases	CEB/ 1,000 women	No. of cases	CEB/ 1,000 women
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
15 – 19 years								
None-Standard 3	7	143	9	–	20	300	1	–
Elementary Std. 4+	78	269	82	136	95	147	35	314
Secondary +	93	65	60	50	45	44	20	50
20 – 24 years								
None-Standard 3	7	2,286	3	3,000	15	2,133	2	2,000
Elementary Std. 4+	71	1,535	72	1,514	96	1,615	26	1,654
Secondary +	75	520	56	518	20	450	15	400
25 – 29 years								
None-Standard 3	5	3,400	3	5,333	44	4,068	5	3,600
Elementary Std. 4+	68	2,662	60	2,883	66	2,924	16	2,625
Secondary +	36	1,694	33	1,576	7	1,714	15	1,733
30 – 34 years								
None-Standard 3	9	7,556	8	4,375	42	5,119	6	6,500
Elementary Std. 4+	66	4,061	63	4,238	32	4,375	21	5,143
Secondary +	31	2,806	20	2,500	2	2,500	1	3,000
35 – 44 years								
None-Standard 3	20	5,950	16	4,688	86	7,047	13	8,231
Elementary Std. 4+	102	5,392	108	4,917	33	5,727	24	4,833
Secondary +	25	2,880	16	2,500	2	3,500	3	3,333

in some reduction in the fertility differentials between the religious groups, despite the fundamental differences in attitudes to contraception and family size that undoubtedly exist.

Ethnic Origin and Religion

Braithwaite (1957) has expressed the view that the fertility differences observed between Indians and non-Indians in Trinidad and Tobago reflect differences between the religious groups (Christian on the one hand, and Hindu and Muslim on the other). If this is so, then in a cross-classification of CEB fertility rates by ethnic origin and religion, we would expect to find

(a) that among Indians the fertility rate of non-Christians is significantly higher than that of Christians; and

(b) that among Christians the fertility of Indians is not significantly higher than that of Africans.

From the figures in Table 6K it will be seen that the statement is in part substantiated. For all age-cohorts, Indians who are Christians have a lower fertility rate than those who are non-Christians. On the other hand, despite a lower Indian fertility rate among Christians 25–29 years old, the figures suggest that for women 20 years old and over, the fertility of Indians remain higher than that of Africans even among Christians.

TABLE 6K: CHILDREN EVER BORN, FERTILITY RATES PER 1,000 WOMEN BY ETHNIC ORIGIN AND RELIGION FOR ALL AGE GROUPS

Religion	Age (years) 15–19		20–24		25–29		30–34		35–44	
	African	Indian	African	Indian	African	Indian	African	Indian	African	Indian
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Christian	128	70	1,120	1,150	2,472	2,069	3,920	4,217	4,752	5,630
Non-Christian	–	142	–	1,435	–	3,150	–	4,938	–	6,563

TABLE 6L. CHILDREN EVER BORN PER 1,000 WOMEN AND PER 1,000 MOTHERS BY AGE AND ECONOMIC ACTIVITY

Age/activity	Number of cases	CEB per 1,000 women	CEB per 1,000 mothers
	(1)	(2)	(3)
15–19 Years			
Works for pay	69	174	387
Does not work for pay	331	193	542
20–24 Years			
Works for pay	140	693	1,032
Does not work for pay	314	1,487	1,922
25–29 Years			
Works for pay	111	1,541	1,879
Does not work for pay	248	3,266	3,447
30–34 Years			
Works for pay	90	3,067	3,172
Does not work for pay	212	4,773	4,842
35–44 Years			
Works for pay	158	4,804	5,060
Does not work for pay	296	5,699	5,758

These figures appear to support the view that religious differences do explain part, but not all, of the observed fertility differences between Indians and non-Indians. It is possible, however; that this again reflects differential levels of educational attainment, as the level of education of Christian Indians is believed to be higher than that of non-Christian Indians.

Economic Activity

Data from the 1970 survey show that, among women of child-bearing age, the level of fertility is appreciably lower for women who worked for pay than for others, (Table 6L). Moreover, this appreciable differential is maintained when we keep constant factors which have been discussed earlier such as ethnic origin (Table 6M) and education (Table 6N).

TABLE 6M: CHILDREN EVER BORN PER 1,000 WOMEN BY AGE, ETHNIC ORIGIN AND ECONOMIC ACTIVITY

Age/ethnic origin	Economic activity			
	Works for pay		Does not work for pay	
	Number of cases	CEB per 1,000 women	Number of cases	CEB per 1,000 women
	(1)	(2)	(3)	(4)
15–19 Years				
African Descent	28	296	202	119
Indian Descent	26	–	257	136
Other	19	211	66	76
20–24 Years				
African Descent	68	721	110	1,391
Indian Descent	36	750	185	1,476
Other	34	588	26	1,462
25–29 Years				
African Descent	56	1,714	77	3,013
Indian Descent	32	1,156	136	3,412
Other	23	1,652	34	3,353
30–34 Years				
African Descent	44	3,045	74	4,514
Indian Descent	32	3,500	111	5,054
Other	14	2,143	27	4,333
35–44 Years				
African Descent	93	4,118	104	5,269
Indian Descent	40	6,625	166	6,277
Other	26	4,269	26	4,115

TABLE 6N: CHILDREN EVER BORN PER 1,000 WOMEN BY AGE, EDUCATION AND ECONOMIC ACTIVITY

Age/education	Economic activity				
	Works for pay		Does not work for pay		Index (works for pay = 100)
	Number of cases	CEB per 1,000 women	Number of cases	CEB per 1,000 women	
	(1)	(2)	(3)	(4)	(5)
15–19 Years					
None – Standard 3	2	–	51	137	–
Elementary Standard 4+	43	190	249	197	104
Secondary +	28	143	191	42	–
20–24 Years					
None – Standard 3	3	1,667	5	2,240	134
Elementary Standard 4+	67	1,060	202	1,723	163
Secondary +	71	296	96	656	222
25–29 Years					
None – Standard 3	2	2,500	55	4,091	164
Elementary Standard 4+	51	2,000	157	3,115	156
Secondary +	58	1,103	34	2,618	237
30–34 Years					
None - Standard 3	17	4,882	48	5,708	117
Elementary Standard 4+	46	3,087	137	4,701	152
Secondary +	27	1,889	27	3,481	184
35–44 Years					
None – Standard 3	29	7,759	107	6,486	84
Elementary Standard 4+	95	4,642	173	5,462	118
Secondary +	33	2,424	13	3,231	133

Place of Residence

As would be expected, the level of fertility differs from one part of the country to another. In Table 6P which shows the fertility rate (children ever born per 1,000 women) by county in 1970 (Harewood*) it is seen that the counties with the highest fertility are Eastern Counties and St. Patrick, for women under 25 years of age, and Eastern Counties and Caroni for women 25 years and over. On the other hand, the counties with the lowest level of fertility are Port of Spain/St. George and Caroni for women under 25 years of age, and Port of Spain/St. George and St. Patrick for women 25 years and over. Caroni therefore has a low level of fertility among young women but a high level among older women, while the reverse is true for St. Patrick.

TABLE 6P: CHILDREN EVER BORN PER 1,000 WOMEN BY AGE AND COUNTY OF RESIDENCE

Age/county of residence	Number of cases	CEB per 1,000 women
	(1)	(2)
15–19 Years		
Port of Spain/St. George	162	222
San Fernando/Victoria	88(69)	217
Caroni	73	151
Eastern Counties	24	292
St. Patrick	54	278
Tobago	8	125
20–24 Years		
Port of Spain/St. George	196	1,049
San Fernando/Victoria	102(80)	1,095
Caroni	64	1,244
Eastern Counties	29	1,324
St. Patrick	50	1,848
Tobago	15	1,067
25–29 Years		
Port of Spain/St. George	156	2,509
San Fernando/Victoria	71(58)	3,040
Caroni	48	3,208
Eastern Counties	27	3,952
St. Patrick	50	2,506
Tobago	9	4,033
30–34 Years		
Port of Spain/St. George	126	3,713
San Fernando/Victoria	64(48)	4,277
Caroni	37	4,808
Eastern Counties	22	5,309
St. Patrick	37	4,419
Tobago	16	3,769
35–44 Years		
Port of Spain/St. George	196	5,621
San Fernando/Victoria	94(71)	5,863
Caroni	58	6,425
Eastern Counties	39	5,920
St. Patrick	54	5,637
Tobago	14	3,828

TABLE 6Q. CHILDREN EVER BORN PER 1,000 WOMEN AND PER 1,000 MOTHERS BY AGE AND URBAN–RURAL RESIDENCE

Age (Years)	CEB per 1,000 women				CEB per 1,000 mothers			
	Urban		Rural		Urban		Rural	
	No. of cases	CEB/ 1,000 women	No. of cases	CEB/ 1,000 women	No. of cases	CEB/ 1,000 mothers	No. of cases	CEB/ 1,000 mothers
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
15–19	342	143	254	106	44	1,114	22	1,227
20–24	275	1,047	183	1,486	140	2,066	112	2,429
25–29	211	2,441	148	3,122	165	3,121	128	3,610
30–34	173	3,902	128	4,766	161	4,192	121	5,041
35–44	265	4,958	188	6,101	242	5,429	178	6,444

On the basis of a simple urban-rural dichotomy, taking as urban Port of Spain/St. George and San Fernando/Naparima/Pointe-a-Pierre (Table 6Q), it is clear that apart from the case of very young women under 20 years of age, the fertility rate of rural areas is higher than that of urban areas. In this respect the situation in Trinidad and Tobago is similar to that in most countries.

Mating Patterns

Among the variables considered to have the greatest influence on the level of fertility in a society are: the proportion of women who enter into sexual unions; the age of the entry into such unions; and the amount of the reproductive period spent in such unions. In many countries, this mating aspect of fertility is based entirely on the study of marriage since virtually all births occur in wedlock. This is not so in the Caribbean, where, a large proportion of births is recorded as illegitimate. For example, 61 per cent of all births in Trinidad and Tobago in the period 1941–45 were illegitimate. In the period 1880 to 1940 illegitimate births varied between 65 and 75 per cent. At that time, all births occurring to partners whose marriage had not been legally registered were classified as illegitimate.

In 1946 this classification was amended so that children born to parents married according to Hindu or Muslim custom were recorded as legitimate whether the marriage of the parents was legally registered or not. On this basis, the proportion of births recorded as illegitimate has been 41–42 per cent since 1962. With so large a proportion of births

recorded as illegitimate it is clear that the simple dichotomy of the population into married and not-married is inadequate for a serious study of the influence of mating patterns on fertility.

For this reason, at the census of 1946, the classification of the population according to marital status was extended to include the group "common law", which represented the case where a man and woman were living together as man and wife, though not married to each other.

At the 1960 and 1970 Censuses of Population this approach was greatly improved. In addition to classifying each adult according to his/her legal marital status, adult women were classified by union status. According to this latter classification, women are classified as married only if they are living with their legally married partner (or with a partner married according to Hindu or Muslim rites even if not registered). Women sharing a household and living as married with a partner are classified as *common law*. Women who have a partner but do not share the same household with him are classified as "visiting". To minimise the interviewing problems with the "visiting" unions, persons have been put in this category at the two censuses only if they had a child during the twelve months preceding the census but were neither in a married or common law union. At the 1970 census it is possible, because of the more detailed tabulation, to add to this group all women who have ever had a child and who claim that they were never in a married or a common law union. This classification is similar in effect, to that used in fertility surveys in the country. See, for example, Harewood (*).

Table 6R shows the distribution of women of child-bearing age by age and union status for 1960 and 1970. The proportion of women ever in a union is very low for women 15–19 years old, but is over 50 per cent for women 20–24 years of age, 80 per cent or higher for the next older age-group, and 90 per cent or higher for women 30 years old and over. The proportion ever in a union is somewhat lower among women under 25 years of age in 1970 than it was in 1960; for women 30–49 years old the proportion is slightly higher in 1970 in every age group.

For women 25 years old and over, those in a married union comprise more than 50 per cent of each age group, being highest for women 30–34 years of age. Women in a common law union are considerably lower in every age group. These two groups together comprise 73 per cent of women 25–29 years old and about 80 per cent of those 30–44 years old in 1970. The proportion of women in a visiting union is in turn much smaller than the proportion in a common law union, even using the wider

TABLE 6R: WOMEN (PROPORTIONS) BY AGE AND UNION STATUS, 1960 AND 1970

Union status	Age						
	15–19	20–24	25–29	30–34	35–39	40–44	45–49
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Never in a Union							
1960	78	37	18	12	10	10	12
1970	88(87)	48(43)	20(15)	10(6)	8(4)	7(4)	7(4)
Ever in a Union							
1960	22	63	82	88	90	90	88
1970	12(13)	52(57)	80(85)	90(94)	92(96)	93(96)	93(96)
Married							
1960	13	40	53	56	56	53	50
1970	7	34	57	64	65	63	62
Common Law							
1960	5	16	20	22	22	22	20
1970	3	12	16	17	17	16	14
Visiting							
1960	4	4	3	2	1	0	0
1970	2(3)	3(8)	2(7)	1(5)	1(5)	0(3)	0(3)
No longer in a Married or Common Law Union							
1960	1	3	5	7	11	15	18
1970	0	3	5	7	9	14	16

definition in 1970 (figures shown in brackets in the table), the proportion varying only between 3 and 8 per cent.

As is shown in Table 6S, the fertility of married women, as measured at the population censuses in terms of children ever born, is somewhat higher than that of women in a common law union. For both of these types of union there has been some increase in the average number of children per women between 1960 and 1970 at the older ages, while the average is slightly lower for women under 35 years of age in the case of married women, and under 25 years of age for common law wives. The census figures suggest a decline throughout the life-bearing span in the average number of children per woman in a visiting union. However, because of the indirect way in which data for this group must be obtained

TABLE 6S: CHILDREN EVER BORN PER 1,000 WOMEN IN A MARRIED OR A COMMON LAW UNION BY AGE 1960 AND 1970

Union status	Age (years)						
	15–19	20–24	25–29	30–34	35–39	40–44	45–49
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Married							
1960	993	2,381	3,639	4,736	5,383	5,364	5,055
1970	833	1,911	3,185	4,516	5,448	5,926	5,902
Common Law							
1960	1,063	2,283	3,258	4,000	4,162	3,791	3,582
1970	1,023	2,149	3,522	4,563	5,128	4,962	4,625

TABLE 6T: CHILDREN EVER BORN PER 1,000 WOMEN AND PER 1,000 MOTHERS BY UNION STATUS AND AGE. 1970 FERTILITY SURVEY

Union status	Age (years)				
	15–19	20–24	25–29	30–34	35–44
	CEB per 1,000 women				
	(1)	(2)	(3)	(4)	(5)
Married	738	1,976	3,181	4,532	5,929
Common law	786	2,269	3,667	4,565	5,747
Visiting	367	855	1,683	3,450	4,429
No present partner ...	429	1,233	2,250	3,231	4,136
	CEB per 1,000 mothers				
Married	1,348	2,303	3,459	4,681	6,183
Common law	1,692	2,565	3,793	4,716	6,038
Visiting	1,000	1,756	2,379	3,632	5,166
No present partner ...	1,126	2,120	2,739	4,000	4,550

in the censuses, this information is not shown here; instead, data by union status for all union types as derived from the Fertility and Family Planning Survey (Females) of 1970 are given in Table 6T.

Table 6T and Diagram 6.4 show that the CEB fertility rates per 1,000 women is slightly higher for common law wives than for married women and that these two types of unions have appreciably higher levels of fertility than visiting unions or those covering women no longer living with a partner. Understandably the union status analysis greatly simplifies

DIAGRAM 6.4 CHILDREN EVER BORN PER 1,000 WOMEN AND PER 1,000 MOTHERS BY AGE AND UNION STATUS

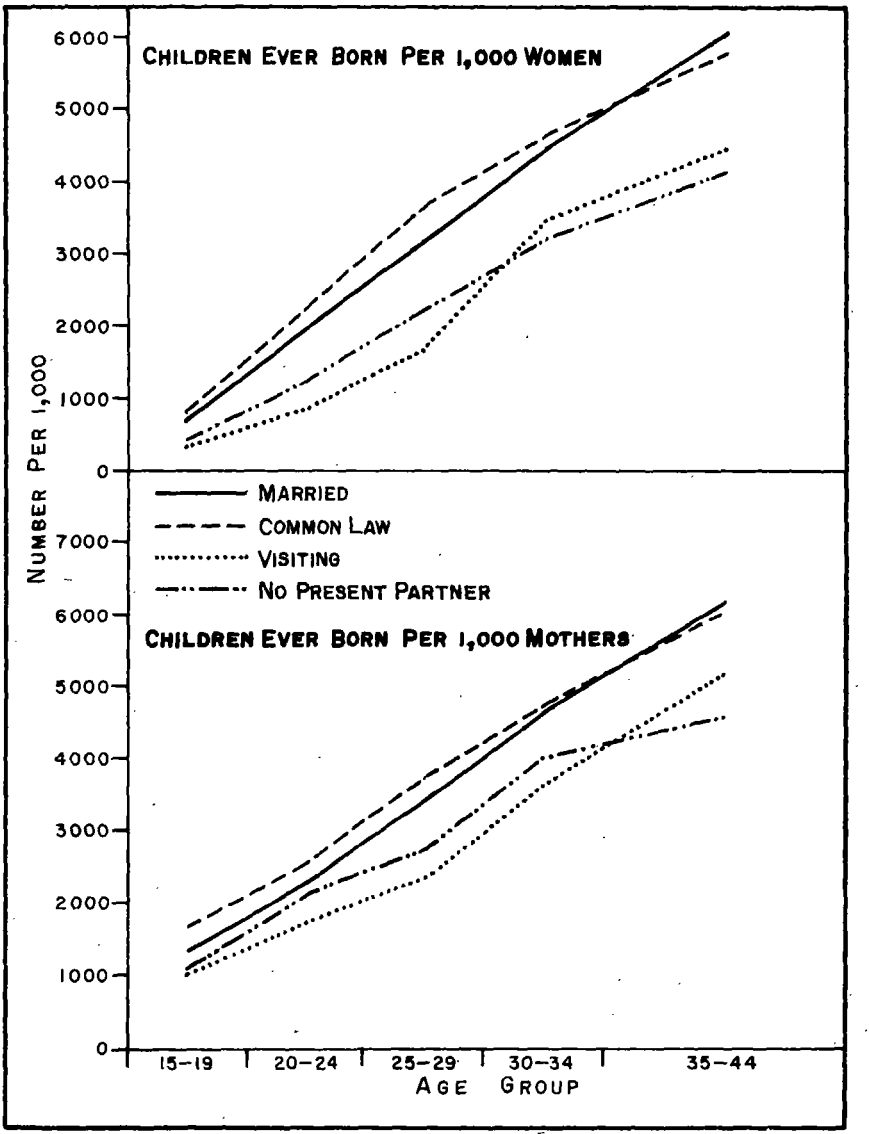


TABLE 6U: WOMEN EVER IN A UNION (PROPORTIONS) BY DATE OF FIRST UNION, UNION STATUS AND CHILDREN EVER BORN

Date of first union/ union status	Number of cases	Number of children ever born			CEB/ 1,000 women
		None	1–3	4+	
	(1)	(2)	(3)	(4)	(5)
1966–70					
Married	161	29	70	—	1,050
Common Law ...	45	44	56	—	889
Visiting	106	63	37	—	406
No present partner ...	50	60	40	—	580
1961–65					
Married	201	6	68	26	2,761
Common Law ...	47	2	77	21	2,745
Visiting	54	39	54	7	1,222
No present partner ...	36	19	67	14	1,833
1956–60					
Married	173	5	36	59	4,150
Common Law ...	64	5	41	55	3,953
Visiting	23	4	74	22	2,652
No present partner ...	24	17	67	17	2,250
1951–55					
Married	148	5	18	78	5,142
Common Law ...	64	2	30	69	4,844
Visiting	22	—	59	41	3,364
No present partner ...	24	8	50	42	3,833
Before 1951					
Married	167	2	15	83	6,982
Common Law ...	62	7	19	74	6,129
Visiting	18	28	17	56	5,389
No present partner ...	43	7	26	68	5,047

the very complex situations that exist in fact. Thus, while it is known that a fair proportion of women enter into more than one union during their reproductive period, the above tables relate only to the status at the time of the survey (or census).[2]

A rough indicator of the amount of their reproductive period spent by women in a union can be obtained by cross-classifying data on union type by date of entry into the first union the woman has had. Table 6U shows the CEB per 1,000 women thus cross-classified. The general pattern

[2]Roberts and Braithwaite (1960) includes a useful and interesting discussion of some of the more complex situations.

remains the same though here it is seen that the fertility rate of married women is slightly higher than that of common law wives, instead of slightly lower as when based on present age of woman.

Harewood (*) has also found that the fertility differentials, such as those discussed at the beginning of this chapter, in part reflect differences in the age of mother at first birth and age at entry into the first union. For example, in comparing the fertility of women of African and of Indian descent, it is shown that of the age-cohort 30–34 and 35–44 years old, 70 per cent of the women of Indian descent who have ever been in a union started their first union before they reached 20 years of age, as compared with only about 45 per cent of women of African descent. Further, the tendency for Indians to join in their first union at a lower average age than women of African descent is also associated with the lower level of childlessness among the former ethnic group, since there is evidence that the likelihood of becoming a mother is appreciably higher for women who first join in a union before they are 25 years old.

It is to be expected that changes in the level of fertility over time will also reflect changes in mating patterns such as briefly discussed above, and there is evident need for a great deal more information and analysis in this aspect of fertility.

Contraception

The appreciable decline in the period fertility rates during the 1960's which was discussed in Chapter 2, has led a number of persons to question: (a) whether this decline is the result of greater and more effective use of contraception, and if so, (b) whether the greater contraceptive practice is an effect of the national family planning programme. Even where relevant data are abundant these questions are extremely difficult to determine. Trinidad and Tobago lacks the information on which a scientific attempt at answering such questions could be made. Moreover, it has been pointed out that it is still too early to be sure whether the decline in the period rates are indicative of a reduction in the completed fertility of women and whether any observed decline may not in fact be temporary. (Chapter 2).

While the questions posed above cannot be answered at the present time, because of the obvious potential effect of both contraceptive practice and the National Family Planning Programme on fertility, these are discussed briefly.

The National Family Planning Programme[3]

George W. Cadbury (1962) writing in 1960 about the prospects for official action in family planning in Trinidad and Tobago referred to the large Roman Catholic population as being largely responsible for the fact that there had been no official action in favour of birth control. There had been, however, much political controversy on the issue, and Cadbury referred to arguments, in 1955, on whether sex education should be introduced into the schools. This was fairly generally opposed, although it had been recently accepted in Jamaica.

The year 1956 is an important one from the point of view of organized family planning in Trinidad and Tobago for two reasons. In this year, the People's National Movement, contesting its first general election, was opposed by many of the Roman Catholic hierarchy on the grounds that the party was in favour of birth control. The party perseveringly disclaimed this charge which, up to that time seemed likely to be unpopular with a fair proportion of the population. The leaders of the party insisted that birth control was a matter for private decision, not for Government, and that therefore as a party they were not concerned with the issue. The People's National Movement did win the general elections in that year and has won the three succeeding general elections in 1961, 1966 and 1971.

In the same year, indeed on the day before the general elections, the first family planning clinic was opened privately in Point Fortin, an oil field town in south Trinidad. Following this, small private clinics were opened in rural areas wherever premises could be obtained. But these small clinics all operated for a short time and then died for lack of community support, and even the first clinic at Point Fortin became inactive when the founders were transferred out of the area.

Organized family planning first moved into the major urban areas in 1959 when a clinic was started in Port of Spain. By 1961 a Family Planning Association was set up, its constitution being approved at the Western Hemisphere Regional Conference of the IPPF in Barbados (April 1961).

In 1962 a clinic was opened by the Family Planning Association in San Fernando, the second town of the country.

[3]This section is very largely taken from: Jack Harewood (*).

While the outcry against the Family Planning Association and its work had died down by 1966, the Association was badly handicapped by lack of funds. In the meanwhile, however, the People's National Movement had had a change of heart, and following recommendations of an Ad Hoc Committee which had been set up to look into the matter, decided to recommend that the Government take an active part in, as well as give every encouragement to voluntary bodies engaged in family planning. In 1967 the Government accepted the proposals and agreed to the institution of a National Family Planning Programme with one of its main objectives being to reduce the crude birth rate to under 20 per 1,000 in 10 years time.[4] Responsibility for the Programme was given to the Minister of Health, and Government also set up the Population Council of Trinidad and Tobago to advise on family planning matters and to co-ordinate all family planning activities in the country. The members of the Council include representatives of the Family Planning Association and the Catholic Marriage Advisory Council (CMAC), as well as representatives of various Government departments and interested private organizations.

The CMAC established its first formal clinic in Port of Spain in 1968. This was still its only clinic at the end of 1970, services having been started at the General Hospital in 1969 but discontinued. The CMAC was primarily concerned with advice on marriage and family life. The family planning service provided was for the most part limited to the rhythm method, particularly the temperature method.

There was appreciable expansion in the work of the two voluntary organizations during 1968 partly because of Government's support, especially the free supply of contraceptive devices and supplies. But a further reason was that the Family Planning Association received assistance from US–AID, the IPPF and the Pathfinder Fund and other sources, while the country was selected as one of the areas to have special attention in 1968 from IPPF in the Western Hemisphere.

As a result of this encouraging government and other support, the family planning programme has increased its momentum appreciably since 1968.

At the end of 1967, there were six Family Planning Association clinics in operation, while a further two had not been in operation since 1963 and 1967 respectively. By the end of 1968, the Family Planning

[4]The crude birth rate had been nearly 40 per thousand in the early 1960's but by 1967 had already fallen to 28 per thousand.

Association had increased its clinics to eight, while eight Government Family Planning Clinics were established. The total number at the end of 1968, including the Catholic Marriage Advisory Council (CMAC) clinic started in 1968, was therefore 17 or almost three times as many as the preceding year.

By the end of 1970 the Family Planning Association were still operating eight clinics but three of these were new ones while three of the older ones were handed over, by agreement, to the Government Programme. In the meanwhile, the Government Programme had increased its clinics from 8 in 1968 to 19 in 1969 and 28 in 1970, so that by the end of 1970 there were 37 clinics in operation.

By the end of 1972, there were 42 family planning clinics being run by the Government, in 16 of these family planning services were integrated with the Maternal and Child Health Service. In addition, the Family Planning Association was providing services in 10 clinics and the Catholic Marriage Advisory Council was giving advice on the rhythm method in 3 centres. Family Planning services were therefore available in 55 centres throughout the country. Associated with the Family Planning Programme, a very active community education programme has been carried out since the start of the official population programme. (For further details see Harewood (1968), Harewood and Abdulah (1971), Andrews (*).

A better indicator of the growth of the Family Planning Programme is the number of new acceptors each year. According to Jack Harewood (1968) from its small beginnings in 1956, the number of new acceptors grew slowly during the first four years to reach 450 in 1960, remained unchanged during the next two years, 1961 and 1962, and then increased rapidly to a very high record in 1965 of 7,870, before falling back in 1966 and 1967. The number of new patients in 1967 (2,770) was only slightly higher than in 1964. The very large increase in new patients, particularly from 1964, coincides with the introduction of the Birth Control pills and the IUD as contraceptive methods offered by the Family Planning Association clinics.

The enlarged programme in 1968 resulted in the number of new patients to Family Planning Association clinics increasing from 2,770 the year before to 7,900 or more than the record of 1965. In the same year, the number of new patients attending the Government clinics was 4,760, so that the total for the year (excluding those attending the Catholic Marriage Advisory Council clinic for which information is not available to the author) was 12,650.

In 1969 the number of new patients was 7,690 for the Family Planning Association and 7,930 for Government clinics, a total of 15,620 or about twice the 1965 'record' figure. In 1970 the number of new acceptors in Family Planning Association clinics slumped to 4,473 or less than one-half of the target. Dr. Yee (1970) gave as reasons for this:

(1) the State of Emergency and social unrest in the country from April 1970;

(2) adverse publicity in the press on oral contraceptives; and

(3) a near saturation point of contraceptive users in the groups who would seek service at clinics.

The number of new acceptors in the Government clinics increased from 7,930 in 1969 to 9,997 in 1970. This increase by about 25% may seem surprising at first, in comparison with the decline in the Family Planning Association clinics. It must be remembered, however, that the number of Government clinics had been increased from 19 to 28, one of them at the expense of the Family Planning Association. Moreover, the Government clinics, like the Family Planning Association clinics, only attained one-half of its 1970 target. The reason given for the low acceptance are the same as those given by the Family Planning Association, with the added comment that the 1970 acceptor target was set too high (Population Council of Trinidad and Tobago 1970).

The total number of new acceptors was therefore 14,470 in 1970 or 7 per cent less than the previous year. The above information is by no means adequate for a proper assessment of the growing efficiency of the National Family Planning Programme. It is adequate for our purpose, however, in indicating that there has been a considerable increase in Family Planning activity over the past eighteen years.

It is estimated that in 1970 there were about 24,000 women who were obtaining contraceptive supplies from the various family planning clinics and there were another 36,000 contraceptive users outside of the clinic system making a total of about 60,000 users in all. (Harewood (*)).

Knowledge, Approval and Practice of Contraception by Women

On the basis of a survey carried out in Trinidad and Tobago in 1970, there is available information about the extent of knowledge, approval and practice of contraception on the part of women of child-bearing age. (See Harewood and Abdulah (1971), Harewood and Abdulah (1972), and Harewood (*)). Only 5 per cent of the women in

the sample (i.e. women 15–44 years old but excluding full-time students in a primary or secondary school) did not know any method of birth control. More than one-half of these were young women 15–19 years old.

A survey on male fertility and family planning has recently been carried out by the Institute of Social and Economic Research for the Population Council of Trinidad and Tobago. Norma Abdulah, who directed that survey, is at present analysing the results and preparing the report. Results are not available for inclusion in this study.

Table 6V gives a cross-classification of the number of methods known by various characteristics of the respondents. The general pattern is that the number of methods known increases with age and with education; is higher for Christians than for non-Christian groups; is lowest for women of East Indian descent; and is much higher for women who worked, either at home or outside of the home, than for housewives and others.

The contraceptive method best known was the oral contraceptive or "pill". Of the women interviewed, 70 per cent mentioned this as a method they knew, while a further 18 per cent stated that they had heard about the method when they were asked specifically about it. The two other well-known methods were the condom and the IUD which were mentioned without probing by about 36 per cent of the women. A number of methods which were mentioned without probing by only a few persons had however at least been heard about by a great many more. For example, only 4 per cent of the women mentioned withdrawal, but after probing a further 40 per cent claimed to have heard of the method.

The significant point is that the more effective methods of contraception, particularly the pill, were very well-known. See Table 6W.

Only 4 per cent of the non-students in the sample disapproved of the use of contraception. Of the remaining 96 per cent, 84 per cent approved unconditionally, 8 per cent approved "depending on the circumstances" and 4 per cent were undecided. From Table 6X it will be seen that conditional approval was very high among the best educated women, while absolute approval was not as high for women with a secondary education as for those with less education. When the "absolute" and the "conditional" approvers are added together, however, the proportion increases steadily with education. The only groups among which approval was appreciably lower than the average are: (a) young women 15–19 years old; and (b) persons with little or no education.

Of all the women in the sample who had ever been in a union, 63 per cent had practised contraception at some time. Of these, 40 per cent were using some method at the time of the survey, and 23 per cent were

TABLE 6V: NON–STUDENTS (PROPORTIONS) SHOWING NUMBER OF CONTRACEPTIVE METHODS KNOWN BY VARIOUS CHARACTERISTICS

Characteristics	Number of methods known				
	None	1–3	4–6	7–9	10+
	(1)	(2)	(3)	(4)	(5)
ALL WOMEN	5	14	21	24	36
A – AGE (Years)					
15–19	14	32	24	17	12
20–24	3	12	22	28	35
25–29	3	7	20	25	44
30–34	2	6	20	23	49
35–44	3	9	20	24	44
B – RELIGION					
Roman Catholic	5	10	16	23	46
Other Christian	4	10	18	22	46
Hindu	6	22	30	26	16
All Other	8	14	22	23	34
C – ETHNIC ORIGIN					
African Descent	4	9	15	23	50
Indian Descent	6	20	26	24	22
All Other	5	8	18	21	48
D – EDUCATION					
None – Standard 3	6	18	33	24	18
Elementary Standard 4+	6	13	21	24	36
Secondary + ...	3	13	14	21	49
E – UNION STATUS					
Married	3	8	23	24	43
Common Law	3	8	22	28	38
Visiting	5	7	15	32	42
No present partner	3	13	15	22	47
Never in a union	13	33	25	16	14
F – MAIN ACTIVITY					
Works for pay	4	10	12	23	51
Does not work for pay	6	16	25	23	30
G – OCCUPATION					
Professional/Administrative/Clerical	3	9	9	17	62
Other Occupation	4	11	15	26	44
None	6	16	25	24	30
H – PLACE OF RESIDENCE					
Port of Spain/St. George	6	12	16	24	42
San Fernando/Victoria	4	14	28	24	30
Caroni	7	15	31	23	23
Eastern Counties	4	18	25	25	28
St. Patrick	6	18	19	22	35
Tobago	0	3	5	18	74

TABLE 6V: NON – STUDENTS (PROPORTIONS) SHOWING NUMBER OF CONTRACEPTIVE METHODS KNOWN BY VARIOUS CHARACTERISTICS (Continued)

Characteristics	Number of methods known				
	None	1–3	4–6	7–9	10+
	(1)	(2)	(3)	(4)	(5)
J – AWARENESS OF POPULATION PROBLEM					
Aware	4	13	21	25	78
Not Aware	8	15	22	22	32
Don't Know	9	19	23	17	32
K – NUMBER OF LIVE-BORN CHILDREN					
None	11	25	23	20	21
1 Child	2	9	17	30	42
2 Children	3	9	16	20	52
3 Children	1	6	20	26	46
4–5 Children	2	7	23	27	42
6+ Children	3	9	25	23	40
L – IDEAL NUMBER OF CHILDREN					
1 or 2 Children	8	19	26	21	26
3 Children	4	12	23	23	38
4 Children	3	12	20	27	38
5+ Children*	7	13	20	20	40
M – WAS LAST PREGNANCY PLANNED[1]					
Planned	2	18	18	24	49
Not planned but wanted ...	2	8	20	29	41
Made no difference ...	5	11	19	25	39
Unwanted	1	7	23	24	44

*Includes non-numeric answers e.g. "any number she wants" or "the number God gives her". Excludes "Don't know".

[1]This relates to women ever pregnant.

no longer using. Of those no longer using 4 per cent were no longer with a partner and 6 per cent were pregnant. If follows then that only 13 per cent of the ever-users who were living with a partner and were not pregnant had stopped using contraception. Since some of these would have stopped because they thought themselves unlikely to have a child or because they wanted a child, the drop-out rate is not as excessive as might at first appear.

Because most of the women no longer with a partner at the time of the survey would not be using contraception, it is preferable to restrict our attention here to women who, at the time of the survey, were in a union. This is done in Table 6Y. For all women in a union at the time of the survey, 65 per cent had practised contraception at some time and 44 per cent were still practising at the time of the survey.

TABLE 6W: NON-STUDENTS (PROPORTIONS) KNOWING EACH METHOD OF BIRTH CONTROL BEFORE AND AFTER PROBING BY AGE GROUP

Method of birth control	Knew your method before or after probing			Knew method before probing		
	All women	15–29 Years	30–44 Years	All women	15–29 Years	30–44 Years
	(1)	(2)	(3)	(4)	(5)	(6)
Pill	88	86	91	70	69	72
Condom	78	74	84	36	34	39
Abortion	74	72	76	4	4	4
I.U.D.	68	62	76	36	34	40
Sterilization-Female	51	45	60	5	4	7
Breast feeding	48	40	60	1	1	2
Diaphragm	46	39	58	15	12	21
Withdrawal	44	37	54	4	3	5
Douche	42	35	53	2	2	3
Foam tablets	38	34	44	12	10	15
Jelly/cream	36	31	44	11	10	13
Calendar (Rhythm) Method	36	33	40	8	6	10
Sterilization-Male	30	28	32	3	3	3
Abstinence	28	26	32	2	2	2
Aerosol	17	15	19	5	5	6
Temperature (Rhythm) Method	15	14	17	4	4	5
Suppository/Pessary	10	8	13	2	1	4
Sponge Tampon	4	4	4	1	1	1
Other method	11	10	12	7	6	7

The classification by age (Table 6Y(a)) shows that the proportion of ever-users increased with age up to age 30–34 but was comparatively low for women 35–44 years old, probably because the expanded use of contraception started too late to have as large an impact on this oldest group. However, while the proportion of current users is also highest among women 30–34 years of age, the proportion among women 35–44 years is as large as that for women 25–29 years of age.

TABLE 6X: NON-STUDENTS (PROPORTIONS) SHOWING ATTITUDE TO PRACTICE OF BIRTH CONTROL BY SEVERAL CHARACTERISTICS

Characteristics	Number of cases	Attitude to practice of Birth Control					Percentage-point differences between attitudes and knowledge[1]
		Approve			Object	Don't know	
		Total	Absolute	Conditional			
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
ALL WOMEN	1,985	92	84	8	4	4	− 3
A–AGE (Years)							
15–19	380	88	78	10	6	6	+ 1
20–24	446	93	86	7	5	3	− 4
25–29	357	96	89	7	2	2	− 1
30–34	298	94	85	8	4	3	− 4
35–44	449	93	83	10	3	4	− 4
B – RELIGION							
Roman Catholic ...	632	95	84	10	3	2	0
Other Christian	547	91	82	9	5	4	− 5
Hindu	548	91	86	5	4	5	− 3
AllOther	190	94	83	11	2	4	+ 2
C – ETHNIC ORIGIN							
African Descent	759	93	84	8	5	3	− 4
Indian Descent	913	92	85	6	4	5	− 2
All Other	253	97	80	17	2	1	+ 2
D – EDUCATION							
None – Standard 3 ...	301	89	83	6	4	7	− 5
Elementary Std. 4+ ...	1,163	92	86	7	4	3	− 2
Secondary + ...	460	96	82	15	2	1	− 1
E – UNION STATUS							
Married	853	95	87	8	3	2	− 2
Common Law	282	91	85	6	5	4	− 6
Visiting	223	94	86	8	4	2	− 1
No present partner ...	179	90	82	8	4	6	− 7
Never had a partner ...	395	88	77	11	6	6	+ 1
F – PLACE OF RESIDENCE							
Port of Spain/St. George	820	94	84	10	3	3	0
San Fernando/Victoria ...	401	90	84	6	4	6	− 7
Caroni	269	93	89	5	4	2	+ 1
Eastern Counties ...	140	88	84	4	9	4	− 8
St. Patrick	240	92	83	9	5	4	− 2
Tobago	62	98	76	23	2	0	− 2
G – MAIN ACTIVITY							
Works for pay	560	95	84	11	3	2	− 1
Does not work for pay ...	1,360	92	85	7	4	4	− 2

TABLE 6X: NON-STUDENTS (PROPORTIONS) SHOWING ATTITUDE TO PRACTICE OF BIRTH CONTROL BY SEVERAL CHARACTERISTICS – Continued

Characteristics	Number of cases	Attitude to practice of Birth Control					Percentage-point differences between attitudes and knowledge[1]
		Approve			Object	Don't know	
		Total	Absolute	Conditional			
	(8)	(9)	(10)	(11)	(12)	(13)	(14)
H – AWARENESS OF POPULATION PROBLEM							
Aware	1,457	95	88	7	3	2	– 1
Not aware	203	88	77	11	8	3	– 4
Don't know	262	82	71	11	5	13	– 9
J – NUMBER OF LIVEBORN CHILDREN							
None	637	89	77	12	6	5	0
1 Child	238	94	84	10	4	2	– 4
2 Children	215	93	86	7	3	4	– 4
3 Children	211	94	88	6	3	3	– 5
4–5 Children	287	96	89	7	2	1	– 2
6+ Children	344	94	89	5	3	3	– 3
K – NUMBER OF PREGNANCIES							
None	588	89	77	12	6	5	+ 1
1 Pregnancy	211	94	85	10	4	1	– 4
2 Pregnancies	182	94	86	9	3	3	– 3
3 Pregnancies	206	93	85	7	3	4	– 5
4–5 Pregnancies	279	96	89	8	1	2	– 2
6+ Pregnancies	466	94	89	5	3	3	– 4
L – IDEAL NUMBER OF CHILDREN							
1 or 2 Children	336	89	87	3	5	5	– 3
3 Children	328	96	90	6	2	2	0
4 Children	781	95	86	9	3	2	– 2
5+ Children**	471	89	75	14	5	6	– 4
M – WAS LAST PREGNANCY PLANNED?2							
Planned	263	97	88	8	2	2	– 1
Not planned but wanted	476	93	85	8	4	3	– 4
Made no difference	454	91	82	9	4	5	– 4
Not wanted	177	96	91	5	2	2	– 2
N – PREGNANT NOW?3							
Pregnant now	172	95	89	6	4	1	– 2
Not now pregnant	1,315	94	86	8	3	3	– 3

** Includes non-numeric answers e.g. "any number she wants" or "the number God gives her". Excludes "Don't know".

[1] The percentage-point differences between attitude and knowledge are obtained by subtracting the proportion who knew about contraception either before or after probing (Table 6V) from the proportion who approved of contraceptive use either absolutely or conditionally.

[2] This relates to women who have ever been pregnant.

[3] This relates to women who have ever been in a union.

TABLE 6Y: WOMEN AT PRESENT IN A UNION (PROPORTIONS) SHOWING THE PRACTICE OF CONTRACEPTION BY SELECTED CHARACTERISTICS OF THE WOMEN

Characteristics	No. of cases, no. of pregnancies	Practice of contraception: Ever practised				No longer practising		Drop-out rate*	
		Total	Now practising	All women	Of whom now pregnant	Never practised	All women	Of whom now pregnant
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
ALL WOMEN ...	1,374	65	44	21	6	35	33	26
(i) – AGE (YEARS)								
15–19	130	45	30	16	8	55	34	19
20–24	294	66	41	26	8	34	38	29
25–29	300	69	44	25	9	31	36	26
30–34	270	73	52	21	5	27	29	23
35–44	378	61	44	17	2	39	28	26
(ii) – RELIGION								
Roman Catholic ...	436	67	47	21	6	33	31	25
Other Christian ...	389	67	44	23	7	33	35	28
Hindu	407	59	38	21	6	41	35	28
All other	132	67	50	17	6	33	26	18
(iii) – ETHNIC ORIGIN								
African Descent	539	66	44	23	6	34	34	28
Indian Descent	652	62	42	20	6	38	32	25
All other	176	72	50	22	7	28	31	21
(iv) – EDUCATION								
None – Standard 3 ...	262	55	36	19	6	45	35	27
Elementary Standard 4+	849	64	43	21	5	37	32	27
Secondary + ...	256	78	52	26	12	22	33	23
(v) – UNION STATUS								
Married	864	68	48	19	6	32	28	21
Common Law	285	58	31	27	5	42	46	41
Visiting	225	61	40	21	12	39	35	29
(vi)– NUMBER OF PREGNANCIES								
None	159	43	29	14	..	57	32	..
1 Pregnancy	173	56	32	24	..	44	43	..
2 Pregnancies	165	67	44	23	..	33	35	..
3 Pregnancies	189	64	42	21	..	36	33	..
4–5 Pregnancies	263	72	50	22	..	28	30	..
6+ Pregnancies	425	71	50	21	..	29	30	..

*'No longer practising' as percentage of 'ever practised'.
.. Not Available.

TABLE 6Z: AVERAGE NUMBER OF CHILDREN PER WOMAN BY AGE, PRACTICE OF CONTRACEPTION AND UNION STATUS

Age/practice of contraception	Union Status							
	Married		Common law		Visiting		No present patrner	
	No. of cases	Average No. of children	No. of cases	Average No. of children	No. of cases	Average No. of children	No. of cases	Average No. of children
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
ALL WOMEN								
Now using	419	4.5	88	5.0	90	1.4	—	—
No longer using ...	167	3.6	76	3.9	48	2.5	67	2.7
Never used	278	3.4	120	3.7	87	1.1	95	2.4
15–19 YEARS								
Now using	10	1.0	4	1.2	24	0.2	—	—
No longer using ...	5	0.8	6	0.5	9	0.6	7	0.1
Never used	27	0.6	18	0.8	27	0.4	12	0.5
20–24 YEARS								
Now using	71	2.4	13	2.4	36	0.8	—	—
No longer using ...	36	1.9	21	2.4	18	1.3	18	1.4
Never used	59	1.6	18	2.0	22	0.6	18	0.9
25–29 YEARS								
Now using	78	3.2	19	3.5	15	1.5	—	—
No longer using ...	46	3.3	21	4.0	7	2.3	13	2.8
Never used	55	3.0	20	3.5	19	1.6	14	1.6
30–34 YEARS								
Now using	103	4.7	30	5.8	8	3.5	—	—
No longer using ...	39	4.0	11	4.3	7	3.6	12	3.7
Never used	46	4.5	21	4.1	5	3.2	11	3.2
35–44 YEARS								
Now using	137	6.7	22	7.4	7	6.1	—	—
No longer using ...	41	5.5	17	6.5	7	7.3	17	4.5
Never used	91	5.0	43	4.6	14	2.1	40	3.7

In the classification by religion (Table 6Y(b)) the proportion of ever-users and current users is lowest among Hindus. On the other hand, the residual group consisting mainly of Muslims, has the highest proportion, followed by Roman Catholics. There is not much difference between the two major ethnic groups, the proportion being slightly higher for women of African descent in each case. The rates of contraceptive use are appreciably higher among women in the residual ethnic group than among the two major groups. (Table 6Y(c)).

It is clear from the above that the rate of contraceptive use is low among Hindus, but must be relatively high for non-Hindu women of Indian descent, since the rate of use for Indians as a whole is virtually the same as for women of African descent. In fact, figures not reproduced here, show that among Christians, the rate of current contraceptive use is about the same for women of African and Indian descent, but for those who are Other Christians (non-Catholics) the rate is very mugh higher for Indians. It is, therefore, religion and not ethnic origin which is significant in this connection.

There is a very appreciable increase in the rate of contraceptive use with the level of education (Table 6Y (d)). Further analysis confirms that the low rate of contraceptive use among Hindus is closely associated with the relatively low level of education among this group of women, and one must conclude that to a large extent it is differences in the level of education rather than religious persuasion which is most relevant in explaining differences in the level of contraceptive practice.

The rate of contraceptive practice was highest among married women and lowest among those in a common law union, while women in a visiting union were in the intermediate position. (Table 6Y(e)).

In general, contraceptive use is higher among women with many children than among those with only 1 child or with no children. Trinidad and Tobago has not, therefore, reached the stage where on the whole women who practice contraception have fewer children; instead, the present pattern is that it is among women who already have large families that contraceptive practice is highest. (Table 6Y (f)).

The two most popular methods of contraception were the pill and the condom. Of women in a union at the time of the survey, 36 per cent had used the pill at some time, and 22 per cent had relied on the use of the condom by the partner as a means of avoiding contraception. The only other methods which have been used by more than 5 per cent of the women were withdrawal, foam tablets and the IUD.

Table 6Z sub-divides persons who have ever used each method into those who are now using it and those who are no longer using that particular method. Except for abstinence, there are more women who have stopped using each method than are still using it. It must be remembered, however, that some of those no longer using the particular method would have changed to another method. Harewood (1973) found that in so far as women change from one method of contraception to another, the net result is a shift towards the more efficient methods.

An attempt was made in the Survey to measure the extent to which induced abortion was resorted to prevent the birth of unwanted children.

It is believed that the figures reported in the survey greatly understate the incidence of abortion, and up to now no reliable figures are available from other sources. It is generally believed, however, that the growing incidence of induced abortion is extremely important in reducing the number of live births that would otherwise occur.

The view that the number of births in recent years has been greatly reduced by the practice of contraception and the use of induced abortion appear, therefore, to be supported. In addition, there appears to be scope for much greater reduction in births since as many as 33 per cent of the women who have ever been pregnant stated that their last pregnancy was unwanted, while one-third of these in turn claimed that they were in fact using some method of contraception when they became pregnant on that occasion.

A point to be borne in mind, however, is that the fact that a particular pregnancy was not wanted does not necessarily mean that the woman did not want any more children at any time. This appears to be borne out by the fact that while 52 per cent of the women who have ever used a contraceptive method gave as their reason that they wanted no more children, as many as 40 per cent wanted merely to postpone the next child. There is also evidence that a significant proportion of women had fewer children than they wanted, while more than one half of the women in the Survey reported 4 or more children as the ideal number per woman. (Harewood (*)).

In conclusion, then, in the absence of direct, measurable evidence, it does appear likely that the number of births has been kept down in recent years by the increased use of contraception (and induced abortion). However, much of this may reflect decisions of women to postpone the next pregnancy, and hence there may be a reversal in the downward trend in the period rates observed in the 1960's when these postponed births begin to occur.

SUMMARY

Data from the last three censuses of population, and fertility surveys carried out in 1958 and 1970 and other sources indicate the following: There is clear evidence of an inverse relationship between educational attainment and fertility of women: The fertility level of women of Indian descent is appreciably higher than that of women of African descent, or more generally, than that of non-Indian women. This differential has however, declined significantly between 1946 and 1970. The differentials by ethnic origin are shown to be associated with differences in the level of education. The level of fertility of the two large non-Christian groups – Hindu and Muslim – are both appreciably higher than that of the Christian groups. Among Christians, the level of fertility of Roman Catholics is slightly higher than that of other Christians. The higher fertility of non-Christians is also found to be associated with the differential levels of education. Furthermore, there is some support for the view that the fertility differentials observed between Indians and non-Indians largely reflects differences in the fertility level of the religious groups. Differences in fertility from area to area have also been observed, particularly the lower fertility level in urban as compared with rural areas.

Aspects of mating, such as the type of union to which the woman belongs (married, common law, visiting, etc), the length of time she has been in a union, and the age at birth of her first child are seen to have great influence on the level of fertility. Hence, fertility differentials between educational, ethnic, religious or other groups are in large measure reflections in the different mating patterns of the groups. Changes in the level of fertility over time, are also most often associated with changes in mating patterns.

The practice of contraception also appears to be associated with the declining period fertility rates since 1960. Threre has been a considerable increase in the activity of the family planning programme associated first with the availability of the IUD and the pill in 1965, and later with the institution of the official National Family Planning Programme in 1967. In a 1970 survey, two-thirds of women in a union stated that they had used contraception at some time, and 44 per cent claimed they were current users. However there is some evidence that much of this contraceptive use might be associated with the desire to postpone the next pregnancy rather than to have no more children at all. In spite of the high level of contraceptive use a high rate of unwanted pregnancies was reported.

CHAPTER 7

POPULATION PROJECTIONS

Introduction

An important objective of demographic research, is to provide knowledge on the basis of which reasonable projections of future population growth and structure can be made. Such projections can serve two important purposes. The first is that they indicate the probable future needs of the country, many of which must be planned long in advance. For example, the projection of the population of school age twenty or thirty years hence can be the basis on which the number of school places and the number of teachers are in turn projected and planned; the expected number of persons of working age is the basis for projecting the number of jobs that would be required; the projected total population indicates the quantity of food that would need to be produced and so forth.

The second main purpose of population projections is to indicate what would be the results of present or probable demographic trends as regards future population size and structure. In this connection, when a projection stipulates that, assuming given mortality, fertility and migration patterns for the future, the population twenty or thirty years ahead would be of a given size and structure, its principal usefulness might well be to draw attention to the need to seek to bring about a change in the mortality, fertility and/or migration patterns, in an effort to ensure a population size and structure more favourable than the one forecast. This approach has been used a great deal to draw attention to the need to reduce the level of fertility particularly in developing countries, and has been used specifically in Trinidad and Tobago for this reason, as well as for proposing the advantages of some emigration. If such a use is made of the population projections, then in a real sense, if the future population turns out to be nearer what is desired and less like the original projection, then the projection would have been effective and successful, though not accurate.

Population projections can be made by a variety of methods, one of the simplest methods being merely to use the compound rate of growth of population in the recent past to 'forecast' the population size at some future time. For example, Harewood (1963) stated that if the rate of growth of the inter-censal period 1946–1960 were to

continue, a population of one-and-a-half million would be exceeded by 1982 and that by the year 2000 the population would have reached two-and-a-half million. A similar exercise using the 1960–1970 intercensal rate of growth and the much lower 1970 population than was expected, would yield a population by the year 2000 of less than one-and-a-half million.

Such crude forecasts of future population based simply on the assumption of a fixed rate of future growth can be illustrative and have some limited usefulness, but are clearly not serious efforts at projecting the future population of the country on the basis of the available demographic information and analysis. The usual demographic approach is to make assumptions about future trends in each of the three components of growth: mortality, fertility and migration, based on an assessment of past trends and any other available and useful information. The exercise of projecting the population then resolves itself into the application of appropriate methods for deriving estimates of population at given periods in the future taking full account of the implications of each of the assumptions.

The United Nations Population Division has recently undertaken a series of projections of the population of most countries of the world using this approach. The U.N. projections start with the population in 1970 and project up to the year 2000. The author was associated with this project, being responsible for an assessment of the population statistics of 1970 and the recent past, and for recommending the assumptions that appeared appropriate for the English-French-and Dutch-speaking Caribbean. The projections given in this chapter are those prepared by the United Nations Population Division for Trinidad and Tobago in this exercise, and are reproduced here with their permission.

Assumptions on which Projections are Based

Assumptions on Mortality

It has been pointed out in Chapter 1 that the mortality situation in Trinidad and Tobago, as indicated by the average length of life at birth, was slightly better than that of Jamaica or Barbados according to the life tables prepared in connection with the censuses of population of 1921 and 1946. Prior to this, data from about 1891 suggests that the situation in Jamaica was slightly better and that in Barbados slightly worse than in Trinidad and Tobago. The average length of life in Guyana has always been lower than that of Trinidad and Tobago and Jamaica.

By 1960, the average length of life of males in Trinidad and Tobago was slightly lower than the corresponding figure for Barbados and Jamaica, and Trinidad and Tobago also lagged slightly behind these two countries as regards females, with the figure for Barbados being somewhat higher than that of Jamaica. Here again the average length of life for Guyana was behind the other three countries.

By 1970, however, the average length of life of Barbados and Jamaica were 2–3 years higher than that of Trinidad and Tobago.

In the light of the doubts expressed about the completeness of enumeration in this country in 1970 and the view that this might in part explain the apparent slow down in mortality improvement (Chapter 1), and since in any case the mortality levels of Trinidad and Tobago and Jamaica have been similar for some time, it was decided to use the slightly higher average length of life of Jamaica in projecting the first five years 1970–1975, and to assume that in the last five-year period this century (1995–2000) the average length of life would be 71.8 years for males and 76.0 years for females. This is about the highest level experienced in Europe in 1970. The "West" model life tables were used in projecting mortality.[1] (See Table 7.1).

Assumptions on Fertility

While it can be confidently assumed that, barring unforseen calamities which are not catered for in these projections, there will be continued though, a comparatively slow rate of improvement in the level of mortality during the remainder of the present century, there is no simple guide to the probable future trend in the level of fertility. For this reason, four separate projections have been prepared on the basis of four different assumptions about future fertility. These are:

(a) *The Constant Variant,* which assumes that the level of fertility will remain very similar to what it was in 1970. A Gross Reproduction Rate of 1.77 is assumed for this Constant Variant.

(b) *The High Variant* which assumes that the G.R.R. will be 1.70 in the period 1970–1975, will decline fairly rapidly to 1.08 in 1985–1990 and then slowly to 1.02 in 1995–2000.

(c) *The Medium Variant.* This assumes a decline in the G.R.R. from 1.65 in 1970–1975 to 1.05 in 1985–1990, and a further decline to 1.00 by 1995–2000.

[1]Coale and Demeny (1966).

TABLE 7.1: ASSUMED EXPECTATION OF LIFE AND GROSS REPRODUCTION RATE 1970–2000

Expectation of Life at Birth (Years):	1970–1975	1975–1980	1980–1985	1985–1990	1990–1995	1995–2000
	(1)	(2)	(3)	(4)	(5)	(6)
All Variants:						
Male	67.90	69.00	70.10	70.90	71.45	71.80
Female ...	71.20	72.60	73.60	74.60	75.40	76.00
Gross Reproduction Rate:						
High	1.71	1.41	1.23	1.08	1.04	1.02
Medium ...	1.65	1.37	1.19	1.05	1.02	1.00
Low	1.60	1.30	1.15	1.02	1.00	1.00
Constant ...	1.77	1.77	1.77	1.77	1.77	1.77

(d) *The Low Variant.* This assumes the most rapid decline in the G.R.R. to 1.02 in 1985–1990 and to 1.00 for the next decade. (See Table 7.2).

Assumptions on International Migration

The unexpectedly high level of emigration from Trinidad and Tobago, and indeed the whole Commonwealth Caribbean, during the last inter-censal period, stresses the extreme importance of this component for future population growth prospects. But it also re-emphasises how hazardous it is to project the future of migration as it is so much dependent on the population needs and the attitude towards migrants on the part of possible receiving countries. While the number of emigrants was very high in the period 1960–1970, it is not unlikely that unforseen changes in the world situation or in the attitudes of the receiving countries will lead to a drastic reduction in migration in the future. The fact that Trinidad has benefitted from recent spectacular increases in oil prices and from large new discoveries of petroleum and natural gas might hasten the reduction in emigration.

In the light of this uncertainty, it is assumed for all variants of the projections, that emigration from Trinidad and Tobago, which during the decade 1960–1970 averaged 12,700 per year, will be about 8,300 per year in the period 1970–1975 and will decline to about 3,200 per year in the decade 1990–2000. It is also assumed that the remarkable imbalance in the sex composition of net emigrants in the period 1965–

DIAGRAM 7.1. POPULATION GROWTH (PROJECTIONS)
1970–2000.– FOUR VARIANTS

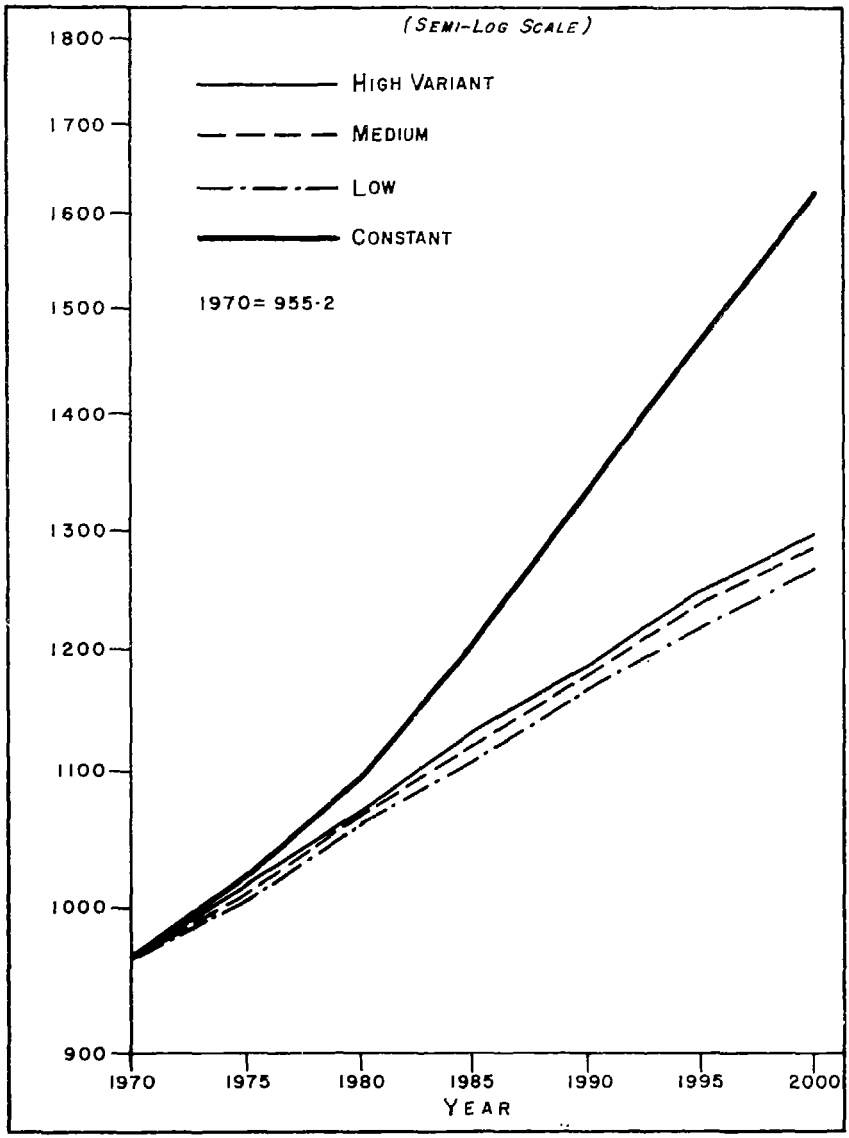


TABLE 7.2A: POPULATION (IN THOUSANDS) BY AGE AND SEX, 1970–2000
HIGH VARIANT

Age/Year	Males						
	1970	1975	1980	1985	1990	1995	2000
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
ALL AGES ...	471.6	503.8	534.5	566.7	597.4	628.2	654.9
0– 4 ...	67.5	61.5	59.5	60.5	57.7	56.6	54.8
5– 9 ...	74.0	66.0	60.3	58.5	59.7	57.1	56.0
10–14 ...	63.8	71.9	64.2	58.7	57.2	58.8	56.2
15–19 ...	51.8	59.9	68.4	61.2	56.4	55.7	57.3
20–24 ...	40.1	43.7	52.7	62.2	56.5	53.2	52.5
25–29 ...	28.9	36.2	40.3	49.7	59.8	54.8	51.6
30–34	23.7	24.8	32.6	37.1	47.2	58.0	53.1
35–39 ...	21.2	24.9	25.9	33.4	37.7	47.5	58.2
40–44 ...	19.9	22.6	26.0	26.9	34.1	38.0	47.7
45–49 ...	19.8	20.6	23.1	26.4	27.1	34.0	37.9
50–54	18.0	19.7	20.4	22.9	26.0	26.6	23.3
55–59 ...	14.1	17.3	18.9	19.7	22.0	25.0	25.6
60–64 ...	10.9	13.0	15.9	17.5	18.2	20.4	23.3
65–69 ...	8.5	9.5	11.3	14.0	15.4	16.1	18.1
70–74 ...	4.7	6.8	7.6	9.2	11.4	12.7	13.3
75–79 ...	2.9	3.3	4.8	5.5	6.7	8.3	9.3
80+ ...	1.9	2.2	2.6	3.5	4.3	5.3	6.6

1970 (females comprised about two-thirds of all emigrants – see Chapter 1 – and about 70 per cent for the shorter period 1967–1970) will be reduced and females are assumed to be about 60 per cent of all emigrants throughout the period 1970–2000.

The Projections

The projected population (by age and sex) derived according to each of the four sets of assumptions are given in Tables 7.2A to 7.2D. The Constant Variant, which assumes no decline in fertility, projects a

TABLE 7.2A: POPULATION (IN THOUSANDS) BY AGE AND SEX, 1970–2000
HIGH VARIANT – (Continued)

Age/Year	Females						
	1970	1975	1980	1985	1990	1995	2000
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
ALL AGES ...	483.6	506.7	530.3	556.5	583.9	613.7	640.1
0– 4 ...	66.9	60.0	58.1	59.0	56.2	55.2	53.5
5– 9 ...	73.2	65.3	58.6	56.9	58.1	55.6	54.6
10–14 ...	63.6	71.3	63.6	57.2	55.9	57.4	54.9
15–19 ...	53.9	59.6	67.7	60.6	55.0	54.4	55.9
20–24	42.0	46.4	53.0	62.0	56.3	52.1	51.5
25–29 ...	30.6	38.6	43.4	50.4	60.0	55.0	50.8
30–34 ...	25.4	27.8	36.1	41.2	48.7	58.8	53.8
35–39 ...	23.2	23.1	25.7	34.2	39.8	47.7	57.7
40–44 ...	21.0	21.4	21.6	24.3	33.1	39.0	46.8
45–49 ...	1[illegible].5	19.8	20.4	20.7	23.6	32.5	38.3
50–54 ...	1[illegible].0	18.4	18.4	19.4	19.9	22.9	31.7
55–59 ...	13.2	16.3	17.7	18.2	18.8	19.3	22.3
60–64 ...	10.8	12.4	15.4	16.8	17.3	18.0	18.5
65–69 ...	10.4	9.8	11.3	14.1	15.4	16.0	16.7
70–74 ...	5.7	8.7	8.3	9.7	12.1	13.4	13.9
75–79 ...	4.5	4.2	6.6	6.3	7.5	9.5	10.5
80+ ...	3.0	3.7	4.0	5.4	6.1	7.1	8.7

population in the year 2000 of 1,615,000. The three variants based on an assumption of declining fertility do not differ appreciably, varying from 1,258,300 to 1,295,000, a difference of only about 3 per cent.

The influence of a continued decline in fertility is quite marked as regards the age distribution of the projected populations (Table 7.3). As compared with 54 per cent of the total population under 20 years of age in 1970, and 45 per cent in 2000 if there is no decline in fertility, for the other three variants only about one-third of the population is under 20 years of age. At the other end of the age scale, as compared with 4.4 per cent of the population 65 years old and over in 1970,

TABLE 7.2A: POPULATION (IN THOUSANDS) BY AGE AND SEX, 1970–2000
HIGH VARIANT—(Concluded)

Age/Year	Both Sexes						
	1970	1975	1980	1985	1990	1995	2000
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
ALL AGES ...	955.2	1,010.4	1,064.8	1,123.2	1,181.3	1,241.9	1,295.0
0– 4 ...	134.3	121.4	117.6	119.5	113.9	111.8	108.2
5– 9 ...	147.2	131.2	118.9	115.4	117.8	112.7	110.6
10–14 ...	127.4	143.2	127.8	115.9	113.1	116.3	111.2
15–19 ...	105.7	119.5	136.1	121.8	111.4	110.1	113.2
20–24 ...	82.1	90.2	105.7	124.2	112.8	105.3	104.0
25–29 ...	59.4	74.8	83.7	100.1	119.8	109.8	102.4
30–34 ...	49.1	52.5	68.6	78.4	95.9	116.8	106.9
35–39 ...	44.3	48.0	51.6	67.7	77.5	95.2	116.0
40–44 ...	40.9	44.0	47.6	51.2	67.2	77.0	94.5
45–49 ...	39.3	40.4	43.5	47.1	50.7	66.5	76.2
50–54 ...	34.9	38.0	39.2	42.3	45.9	49.5	65.0
55–59 ...	27.4	33.6	36.6	37.8	40.8	44.3	47.9
60–64 ...	21.7	25.4	31.3	34.2	35.5	38.4	41.8
65–69 ...	18.9	19.2	22.6	28.0	30.9	32.1	34.8
70–74 ...	10.4	15.5	15.9	18.9	23.6	26.1	27.2
75–79 ...	7.4	7.6	11.4	11.8	14.1	17.8	19.8
80+	4.9	5.9	6.6	8.9	10.4	12.4	15.3

this group comprises 7–8 per cent of the total for the high, medium and low variants, and is 6 per cent for the constant variant. The median age of the population in 1970 was 18.25 years. By the year 2000 this would increase to about 23 years according to the constant variant, and about 30 years for each of the others. (See Diagram 7.1).

TABLE 7.2B: POPULATION (IN THOUSANDS) BY AGE AND SEX, 1970–2000
MEDIUM VARIANT

Age/Year	Males						
	1970	1975	1980	1985	1990	1995	2000
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
ALL AGES ...	471.6	502.9	533.0	563.2	592.7	622.3	647.2
0– 4 ...	67.5	60.6	58.9	58.5	56.4	55.3	53.0
5– 9 ...	74.0	66.0	59.4	57.8	57.7	55.8	54.7
10–14 ...	63.8	71.9	64.2	57.8	56.6	56.9	55.0
15–19 ...	5. .8	59.9	68.4	61.2	55.6	55.1	55.4
20–24 ...	40.1	43.7	52.7	62.2	56.5	52.4	51.9
25–29 ...	28.9	36.2	40.3	49.7	59.8	54.8	50.8
30–34 ...	23.7	24.8	32.6	37.1	47.2	58.0	53.1
35–39 ...	21.2	24.9	25.9	33.4	37.7	47.5	58.2
40–44 ...	19.9	22.6	26.0	26.9	34.1	38.0	47.7
45–49 ...	19.2	20.6	23.1	26.4	27.1	34.0	37.9
50–54 ...	18.0	19.7	20.4	22.9	26.0	26.6	33.3
55–59 ...	14.1	17.3	18.9	19.7	22.0	25.0	25.6
60–64 ...	10.9	13.0	15.9	17.5	18.2	20.4	23.3
65–69 ...	8.5	9.5	11.3	14.0	15.4	16.1	18.1
70–74 ...	4.7	6.8	7.6	9.2	11.4	12.7	13.3
75–79 ...	2.9	3.3	4.8	5.5	6.7	8.3	9.3
80+ ...	1.9	2.2	2.6	3.5	4.3	5.3	6.6

TABLE 7.2B: POPULATION (IN THOUSANDS) BY AGE AND SEX, 1970–2000
MEDIUM VARIANT'–(Continued)

Age/Year	Females						
	1970	1975	1980	1985	1990	1995	2000
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
ALL AGES:	**483.6**	**505.8**	**528.9**	**553.2**	**579.3**	**607.9**	**632.6**
0– 4 ...	66.9	59.1	57.5	57.1	55.0	54.0	51.7
5– 9 ...	73.2	65.3	57.8	56.3	56.2	54.4	53.4
10–14 ...	63.6	71.3	63.6	56.4	55.3	55.5	53.7
15–19 ...	53.9	59.6	67.7	60.6	54.1	53.8	54.0
20–24 ...	42.0	46.4	53.0	62.0	56.3	51.3	50.9
25–29 ...	30.6	38.6	43.4	50.4	60.0	55.0	49.9
30–34 ...	25.4	27.8	36.1	41.2	48.7	58.8	53.8
35–39 ...	23.2	23.1	25.7	34.2	39.8	47.7	57.7
40–44 ...	21.0	21.4	21.6	24.3	33.1	39.0	46.8
45–49 ...	19.6	19.8	20.4	20.7	23.6	32.5	38.3
50–54 ...	17.0	18.4	18.8	19.4	19.9	22.9	31.7
55–59 ...	13.2	16.3	17.7	18.2	18.8	19.3	22.3
60–64 ...	10.8	12.4	15.4	16.8	17.3	18.0	18.5
65–69 ...	10.4	9.8	11.3	14.1	15.4	16.0	16.7
70–74 ...	5.7	8.7	8.3	9.7	12.1	13.4	13.9
75–79 ...	4.5	4.2	6.6	6.3	7.5	9.5	10.5
80+ ...	3.0	3.7	4.0	5.4	6.1	7.1	8.7

TABLE 7.2B: POPULATION (IN THOUSANDS) BY AGE AND SEX, 1970–2000
MEDIUM VARIANT – (Concluded)

Age/Year	Both Sexes						
	1970	1975	1980	1985	1990	1995	2000
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
ALL AGES ...	955.2	1,008.7	1,061.9	1,116.4	1,172.0	1,230.2	1,279.8
0– 4 ...	134.3	119.7	116.4	115.6	111.4	109.3	104.7
5– 9 ...	147.2	131.2	117.2	114.2	113.9	110.3	108.1
10–14 ...	127.4	143.2	127.8	114.2	111.9	112.4	108.7
15–19 ...	105.7	119.5	136.1	121.8	109.7	108.8	109.3
20–24 ...	82.1	90.2	105.7	124.2	112.8	103.6	102.8
25–29 ...	59.4	74.8	83.7	100.1	119.8	109.8	100.7
30–34 ...	49.1	52.5	68.6	78.4	95.9	116.8	106.9
35–39 ...	44.3	48.0	51.6	67.7	77.5	95.2	116.0
40–44 ...	40.9	44.0	47.6	51.2	67.2	77.0	94.5
45–49 ...	39..	40.4	43.5	47.1	50.7	66.5	76.2
50–54 ...	34.9	38.0	39.2	42.3	45.9	49.5	65.0
55–59 ...	27.4	33.6	36.6	37.8	40.8	44.3	47.9
60–64 ...	21.7	25.4	31.3	34.2	35.5	38.4	41.8
65–69 ...	18.9	19.2	22.6	28.0	30.9	32.1	34.8
70–74 ...	10.4	15.5	15.9	18.9	23.6	26.1	27.2
75–79 ...	7.4	7.6	11.4	11.8	14.1	17.8	19.8
80+ ...	4.9	5.9	6.6	8.9	10.4	12.4	15.3

TABLE 7.2C: POPULATION (IN THOUSANDS) BY AGE AND SEX, 1970–2000
LOW VARIANT

Age/Year	Males						
	1970	1975	1980	1985	1990	1995	2000
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
ALL AGES ...	471.6	501.1	528.2	557.0	584.8	612.7	636.3
0– 4 ...	67.5	58.8	55.9	57.1	54.7	53.7	51.6
5– 9 ...	74.0	66.0	57.6	54.8	56.3	54.1	53.1
10–14 ...	63.8	71.9	64.2	56.0	53.6	55.5	53.3
15–19 ...	51.8	59.9	68.4	61.2	53.7	52.1	54.0
20–24 ...	40.1	43.7	52.7	62.2	56.5	50.6	48.9
25–29 ...	28.9	36.2	40.3	49.7	59.8	54.8	49.0
30–34 ...	23.7	24.8	32.6	37.1	47.2	58.0	53.1
35–39 ...	21.2	24.9	25.9	33.4	37.7	47.5	58.2
40–44 ...	19.9	22.6	26.0	26.9	34.1	38.0	47.7
45–49 ...	19.8	20.6	23.1	26.4	27.1	34.0	37.9
50–54 ...	18.0	19.7	20.4	22.9	26.0	26.6	33.3
55–59 ...	14.1	17.3	18.9	19.7	22.0	25.0	25.6
60–64 ...	10.9	13.0	15.9	17.5	18.2	20.4	23.3
65–69 ...	8.5	9.5	11.3	14.0	15.4	16.1	18.1
70–74 ...	4.7	6.8	7.6	9.2	11.4	12.7	13.3
75–79 ...	2.9	3.3	4.8	5.5	6.7	8.3	9.3
80+ ...	1.9	2.2	2.6	3.5	4.3	5.3	6.6

TABLE 7.2C: POPULATION (IN THOUSANDS) BY AGE AND SEX, 1970–2000
LOW VARIANT—(Continued)

Age/Year	Females						
	1970	1975	1980	1985	1990	1995	2000
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
ALL AGES ...	483.6	504.0	524.1	547.1	571.6	598.6	622.0
0– 4 ...	66.9	57.3	54.5	55.7	53.3	52.3	50.4
5– 9 ...	73.2	65.3	56.0	53.4	54.8	52.8	51.8
10–14 ...	63.6	71.3	63.6	54.6	52.3	54.1	52.1
15–19 ...	53.9	59.6	67.7	60.6	52.4	50.8	52.6
20–24 ...	42.0	46.4	53.0	62.0	56.3	49.5	48.0
25–29 ...	30.6	38.6	43.4	50.4	60.0	55.0	48.2
30–34 ...	25.4	27.8	36.1	41.2	48.7	58.8	53.8
35–39 ...	23.2	23.1	25.7	34.2	39.8	47.7	57.7
40–44 ...	21.0	21.4	21.6	24.3	33.1	39.0	46.8
45–49 ...	19.6	19.8	20.4	20.7	23.6	32.5	38.3
50–54 ...	17.0	18.4	18.8	19.4	19.9	22.9	31.7
55–59 ...	13.2	16.3	17.7	18.2	18.8	19.3	22.3
60–64 ...	10.8	12.4	15.4	16.8	17.3	18.0	18.5
65–69 ...	10.4	9.8	11.3	14.1	15.4	16.0	16.7
70–74	5.7	8.7	8.3	9.7	12.1	13.4	13.9
75–79 ...	4.5	4.2	6.6	6.3	7.5	9.5	10.5
80+ ...	3.0	3.7	4.0	5.4	6.1	7.1	8.7

TABLE 7.2C: POPULATION (IN THOUSANDS) BY AGE AND SEX, 1970–2000
LOW VARIANT – (Concluded)

Age/Year	Both Sexes						
	1970	1975	1980	1985	1990	1995	2000
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
ALL AGES ...	955.2	1,005.1	1,052.3	1,104.0	1,156.4	1,211.3	1,258.3
0– 4 ...	134.3	116.1	110.4	112.8	108.1	106.0	102.0
5– 9 ...	147.2	131.2	113.6	108.2	111.2	106.9	104.9
10–14 ...	127.4	143.2	127.8	110.6	106.0	109.6	105.4
15–19 ...	105.7	119.5	136.1	121.8	106.1	102.9	106.6
20–24 ...	82.1	90.2	105.7	124.2	112.8	100.0	96.9
25–29 ...	59.4	74.8	83.7	100.1	119.8	109.8	97.1
30–34 ...	49.1	52.5	68.6	78.4	95.9	116.8	106.9
35–39 ...	44.3	48.0	51.6	67.7	77.5	95.2	116.0
40–44 ...	40.9	44.0	47.6	51.2	67.2	77.0	94.5
45–49 ...	39.3	40.4	43.5	47.1	50.7	66.5	76.2
50–54 ...	34.9	38.0	39.2	42.3	45.9	49.5	65.0
55–59 ...	27.4	33.6	36.6	37.3	40.8	44.3	47.9
60–64 ...	21.7	25.4	31.3	34.2	35.5	38.4	41.8
65–69 ...	18.9	19.2	22.6	28.0	30.9	32.1	34.8
70–74 ...	10.4	15.5	15.9	18.9	23.6	26.1	27.2
75–79 ...	7.4	7.6	11.4	11.8	14.1	17.8	19.8
80+ ...	4.9	5.9	6.6	8.9	10.4	12.4	15.3

TABLE 7.2D: POPULATION (IN THOUSANDS) BY AGE AND SEX, 1970–2000
CONSTANT VARIANT

Age/Year	Males						
	1970	1975	1980	1985	1990	1995	2000
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
ALL AGES ...	471.6	506.3	551.0	606.6	671.5	742.2	816.7
0– 4 ...	67.5	64.0	73.5	84.0	91.9	96.8	102.8
5– 9 ...	74.0	66.0	62.8	72.3	83.1	91.2	96.1
10–14 ...	63.8	71.9	64.2	61.2	71.1	82.2	90.3
15–19 ...	51.8	59.9	68.4	61.2	58.9	69.5	80.6
20–24 ...	40.1	43.7	52.7	62.2	56.5	55.7	66.3
25–29 ...	28.9	36.2	40.3	49.7	59.8	54.8	54.1
30–34 ...	23.7	24.8	32.6	37.1	47.2	58.0	53.1
35–39 ...	21.2	24.9	25.9	33.4	37.7	47.5	58.2
40–44 ...	19.2	22.6	26.0	26.9	34.1	38.0	47.7
45–49 ...	19.8	20.6	23.1	26.4	27.1	34.0	37.9
50–54 ...	18.0	19.7	20.4	22.9	26.0	26.6	33.3
55–59 ...	14.1	17.3	18.9	19.7	22.0	25.0	25.6
60–64 ...	10.9	13.0	15.9	17.5	18.2	20.4	23.3
65–69 ...	8.5	9.5	11.3	14.0	15.4	16.1	18.1
70–74 ...	4.7	6.8	7.6	9.2	11.4	12.7	13.3
75–79 ...	2.9	3.3	4.8	5.5	6.7	8.3	9.3
80+ ...	1.9	2.2	2.6	3.5	4.3	5.3	6.6

TABLE 7.2D: POPULATION (IN THOUSANDS) BY AGE AND SEX, 1970–2000
CONSTANT VARIANT—(Continued)

Age/Year	Females						
	1970	1975	1980	1985	1990	1995	2000
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
ALL AGES ...	483.6	509.2	546.4	595.5	656.2	725.1	798.3
0– 4 ...	66.9	62.4	71.7	81.9	89.7	94.4	100.4
5– 9 ...	73.2	65.3	61.1	70.5	81.0	89.0	93.8
10–14 ...	63.6	71.3	63.6	59.7	69.4	80.3	88.3
15–19 ...	53.9	59.6	67.7	60.6	57.4	67.9	78.7
20–24 ...	42.0	46.4	53.0	62.0	56.3	54.5	65.0
25–29 ...	30.6	38.6	43.4	50.4	60.0	55.0	53.2
30–34 ...	25.4	27.8	36.1	41.2	48.7	58.8	53.8
35–39 ...	23.2	23.1	25.7	34.2	39.8	47.7	57.7
40–44 ...	21.0	21.4	21.6	24.3	33.1	39.0	46.8
45–49 ...	19.6	19.8	20.4	20.7	23.6	32.5	38.3
50–54 ...	17.0	18.4	18.8	19.4	19.9	22.9	31.7
55–59 ...	13.2	16.3	17.7	18.2	18.8	19.3	22.3
60–64 ...	10.8	12.4	15.4	16.8	17.3	18.0	18.5
65–69 ...	10.4	9.8	11.3	14.1	15.4	16.0	16.7
70–74 ...	5.7	8.7	8.3	9.7	12.1	13.4	13.9
75–79 ...	4.5	4.2	6.6	6.3	7.5	9.5	10.5
80+ ...	3.0	3.7	4.0	5.4	6.1	7.1	8.7

TABLE 7.2D: POPULATION (IN THOUSANDS) BY AGE AND SEX, 1970–2000
CONSTANT VARIANT– (Concluded)

Age/Year	Both Sexes						
	1970	1975	1980	1985	1990	1995	2000
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
ALL AGES ...	955.2	1,015.4	1,097.3	1,202.1	1,327.7	1,467.4	1,615.0
0– 4 ...	134.3	126.5	145.2	165.9	181.6	191.2	203.2
5– 9 ...	147.2	131.2	123.9	142.8	164.1	180.2	189.8
10–14 ...	127.4	143.2	127.8	120.9	140.5	162.5	178.6
15–19 ...	105.7	119.5	136.1	121.8	116.4	137.4	159.4
20–24 ...	82.1	90.2	105.7	124.2	112.8	110.3	131.3
25–29 ...	59.4	74.8	83.7	100.1	119.8	109.8	107.3
30–34 ...	49.1	52.5	68.6	78.4	95.9	116.8	106.9
35–39 ...	44.3	48.0	51.6	67.7	77.5	95.2	116.0
40–44 ...	40.9	44.0	47.6	51.2	67.2	77.0	94.5
45–49 ...	39.3	40.4	43.5	47.1	50.7	66.5	76.2
50–54 ...	34.	38.0	39.2	42.3	45.9	49.5	65.0
55–59 ...	27.4	33.6	36.6	37.8	40.8	44.3	47.9
60–64 ...	21.7	25.4	31.3	34.2	35.5	38.4	41.8
65–69 ...	18.9	19.2	22.6	28.0	30.9	32.1	34.8
70–74 ...	10.4	15.5	15.9	18.9	23.6	26.1	27.2
75–79 ...	7.4	7.6	11.4	11.8	14.1	17.8	19.8
80+ ...	4.9	5.9	6.6	8.9	10.4	12.4	15.3

DIAGRAM 7.2. AGE PYRAMIDS YEAR 1970 AND FOUR (4) VARIANTS FOR YEAR 2,000

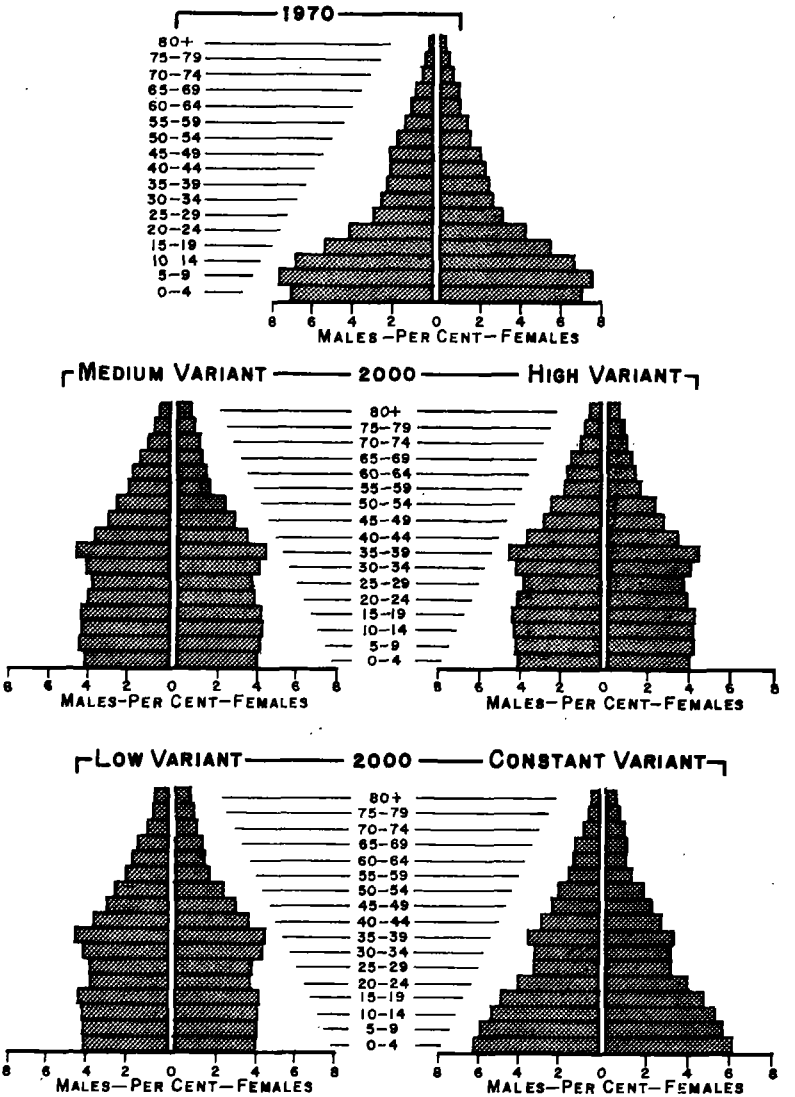


TABLE 7.3: AGE DISTRIBUTION OF THE POPULATION (BOTH SEXES) 1970 AND 2000

Age Group	1970	2000 Variants			
		High	Medium	Low	Constant
	(1)	(2)	(3)	(4)	(5)
0– 4	14.06	8.36	8.18	8.11	12.58
5– 9	15.41	8.54	8.45	8.33	11.75
10–14	13.33	8.58	8.50	8.37	12.06
15–19	11.06	8.74	8.54	8.47	9.87
20–24	8.59	8.03	8.03	7.70	8.13
25–29	6.22	7.91	7.87	7.72	6.64
30–34	5.14	8.25	8.35	8.49	6.62
35–39	4.64	8.95	9.06	9.22	7.18
40–44	4.28	7.30	7.39	7.51	5.85
45–49	4.12	5.88	5.95	6.05	4.72
50–54	3.65	5.02	5.08	5.17	4.03
55–59	2.86	3.70	3.74	3.81	2.96
60–64	2.27	3.22	3.26	3.32	2.59
65–69	1.98	2.69	2.72	2.77	2.16
70–74	1.09	2.10	2.13	2.16	1.69
75–79	0.77	1.53	1.55	1.57	1.23
80+	0.51	1.18	1.20	1.22	0.95
Median Age (Years) ...	18.25	29.90	30.26	30.76	22.91

A summary indicator of the age structure of the population is given by the dependency ratio which is derived as the ratio (per 1,000) of the population under 15 years old (young dependents) plus those 65 years old and over (old dependents) to the population 15–64 years old (i.e. the normal working age). Table 7.4 shows the dependency ratio for each of the four projections. Starting at 892 per 1,000, the dependency ratio would decline to between 482 and 492 per 1,000 according to the projections assuming declining fertility, as compared with over 700 if there were no fertility decline.

TABLE 7.4: DEPENDENCY RATIOS FOR PROJECTIONS 1970–2000

Year	High Variant	Medium Variant	Low Variant	Constant Variant
	(1)	(2)	(3)	(4)
1970	892	892	892	892
1975	784	781	775	793
1980	684	649	634	704
1985	594	584	567	706
1990	559	551	537	741
1995	528	519	513	736
2000	492	486	482	707

The sex ratios of the medium variant are shown in Table 7.5. For the population as a whole this variant shows the number of males per 1,000 females increasing from 975 in 1970 to 1,023 in 2000. For most age groups, also, the sex ratio in the year 2000 would, according to this projection, be higher than in 1970 though in some cases a maximum is reached much earlier. A good example of this is the age group 40–44 which has its highest sex ratio in the year 1980. But of more interest for many purposes is to consider how the sex ratio of a given age cohort is expected to change over time. The cohort showing the greatest change is that aged 30–34 years in 1970 (and hence 60–64 years old in 2000), which shows an increase in the sex ratio from 933 in 1970 to 1,294 in 1995 before falling slightly to 1,258 in 2000. The sex ratios for the high and low variants do not differ significantly from the medium and are not shown here.

The implied growth rates of the projections are given in Table 7.6. From a compound rate of growth of 1.29 per cent per annum in the

TABLE 7.5. SEX RATIOS (MALES PER 1,000 FEMALES) 1970–2000

Age/Year	Males per 1,000 females						
	1970	1975	1980	1985	1990	1995	2000
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
ALL AGES ...	975	994	1,008	1,018	1,023	1,024	1,023
0– 4	1·009	1,025	1,025	1,026	1,026	1,025	1,025
5– 9	1,012	1,011	1,028	1,027	1,027	1,026	1,026
10–14	1,003	1,009	1,008	1,025	1,024	1,025	1,024
15–19	960	1,005	1,010	1,009	1,026	1,025	1,026
20–24	956	942	995	1,003	1,003	1,022	1,020
25–29	945	939	929	985	997	998	1,016
30–34	933	893	903	900	968	987	987
35–39	914	1,081	1,006	977	948	995	1,009
40–44	947	1,053	1,206	1,103	1,028	975	1,018
45–49	1,010	1,037	1,132	1,278	1,147	1,047	990
50–54	1,059	1,070	1,087	1,176	1,309	1,160	1,053
55–59	1,069	1,060	1,066	1,082	1,167	1,294	1,146
60–64	1,010	1,043	1,033	1,040	1,054	1,135	1,258
65–69	823	971	1,002	993	999	1,012	1,089
70–74	833	782	922	952	942	926	956
75–79	654	783	733	865	891	880	881
80+	654	608	650	652	710	748	757

decade 1960–1970, the medium variant shows a growth of 1.10 per-cent per annum in the period 1970–1975 falling to 0.79 per cent in the period 1995–2000. By comparison, the annual rate of growth in the period 1995–2000 according to the high variant is 0.84 per cent and for the low variant 0.76 per cent. If there were no decline in the level of fertility, however, (the constant variant) the rate of growth would be about 2.0 per cent per annum from 1885 onwards.

The crude birth rate, estimated at 25 per thousand in 1965–1970, is down to 17 per thousand by the year 2000 in the case of the three variants which assume declining fertility as compared with 27 per thou-sand in the case of the constant variant.

TABLE 7.6: RATES OF GROWTH, VITAL RATES, FERTILITY RATES

Variant/Period	Annual rate of growth	Vital Rates			Fertility Rates		
		Natural increase	Crude birth	Crude death	Net reproduction	Total fertility	General fertility
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
HIGH							
1970 – 1975	1.13	19.67	25.61	5.94	1.613	3,454	111.3
1975 – 1980	1.05	17.55	23.36	5.81	1.353	2,955	96.1
1980 – 1985	1.07	16.47	22.42	5.95	1.191	2.504	87.5
1985 – 1990	1.01	14.22	20.21	6.00	1.052	2,199	76.4
1990 – 1995	1.01	12.62	18.81	6.19	1.017	2,118	69.5
1995 – 2000	0.84	10.88	17.38	6.50	1.000	2,077	63.5
MEDIUM							
1970 – 1975	1.10	19.34	25.27	5.93	1.567	3,353	109.7
1975 – 1980	1.03	17.35	23.17	5.82	1.318	2,789	95.1
1980 – 1985	1.01	15.83	21.79	5.96	1.152	2.423	84.5
1985 – 1990	0.98	13.89	19.92	6.03	1.019	2,129	74.8
1990 – 1995	0.97	12.32	18.55	6.23	0.994	2,068	68.2
1995 – 2000	0.79	10.43	16.99	6.56	0.977	2,028	61.9
LOW							
1970 – 1975	1.02	18.63	24.55	5.92	1.519	3,251	106.4
1975 – 1980	0.9?	16.30	22.13	5.82	1.251	2,647	90.2
1980 – 1985	0.9	15.48	21.48	6.00	1.109	2,332	82.5
1985 – 1990	0.93	13.47	19.56	6.08	0.990	2,068	72.8
1990 – 1995	0.9ɔ	15.95	18.26	6.31	0.974	2,028	66.8
1995 – 2000	0.76	10.18	16.83	6.65	0.977	2,028	61.3
CONSTANT							
1970 – 1975	1.23	20.64	26.59	5.96	1.680	3,597	115.9
1975 – 1980	1.56	22.45	28.31	5.86	1.698	3,597	118.5
1980 – 1985	1.84	23.73	29.61	5.88	1.708	3,597	121.3
1985 – 1990	2.01	23.62	29.34	5.72	1.719	3,597	121.2
1990 – 1995	2.02	22.26	27.89	5.63	1.726	3,597	115.6
1995 – 2000	1.94	21.22	26.84	5.62	1.731	3,597	110.5

The average annual number of births, deaths, natural increase and net emigration according to the medium and constant variants are set out in Table 7.7. According to the assumptions of the medium variant, the average annual number of births will fall slowly but steadily from 24,800 at the beginning of the period under review to 21,300 in the last five-year period this century. The average number of deaths will increase from 5,800 to 8,200 per year. According to the assumption of constant fertility, however, the number of births each year will increase by nearly 60 per cent from 26,200 at the beginning to 41,400 at the end of the period. The number of deaths, however, will be only slightly higher than in the medium variant so that by the end of the century natural

TABLE 7.7: PROJECTED ANNUAL AVERAGE BIRTHS, DEATHS, NET EMIGRATION FOR MEDIUM AND CONSTANT VARIANTS

Projection/Period	Births	Deaths	Natural increase	Net Emigration (—)	Total increase	Net emigration as % of natural increase
	(1)	(2)	(3)	(4)	(5)	(6)
MEDIUM VARIANT						
1970 – 1975 ...	24,800	5,800	19,000	8,300	10,200	44
1975 – 1980 ...	24,000	6,000	18,000	7,300	10,600	41
1980 – 1985 ...	23,700	6,500	17,200	6,400	10,900	37
1985 – 1990 ...	22,800	6,900	15,900	4,800	11,100	30
1990 – 1995 ...	22,300	7,500	14,800	3,200	11,600	21
1995 – 2000	21,300	8,200	13,100	3,200	9,900	24
CONSTANT VARIANT						
1970 – 1975 ...	26,200	5,900	20,300	8,300	12,000	41
1975 – 1980 ...	29,900	6,200	23,700	7,300	16,400	31
1980 – 1985 ...	34,000	6,800	27,300	6,400	20,900	23
1985 – 1990 ...	37,100	7,200	29,900	4,800	25,100	16
1990 – 1995 ...	39,000	7,900	31,100	3,200	27,900	10
1995 – 2000 ...	41,400	8,700	32,700	3,200	29,500	10
ESTIMATED TOTAL NUMBERS FOR PERIOD 1970–2000						
Medium Variant ...	694,600	204,600	489,900	165,500	324,400	33
Constant Variant ...	1,038,000	212,900	825,100	165,500	659,600	25

increase will be two and a half times as large as for the medium variant. The assumptions on net emigration would result in this component falling from 44 per cent of natural increase in 1970–1975 to 24 per cent in 1995–2000 according to the medium variant, and from 41 per cent to 10 per cent according to the constant variant.

The estimated total number of births, deaths and net migration during the whole of the period 1970–2000 are also shown in Table 7.7. The number of births in the 30–year period would be 695,000 according to the medium variant and 1,038,000 according to the constant variant. With little difference in the number of deaths (205,000 for the medium and 213,000 for the constant variant), natural increase during the whole period would be about 70 per cent higher in the constant variant. Net emigration (166,000 in all variants) would average 33 per cent of natural increase in the medium variant and 25 per cent in the constant variant.

Summary

The principal conclusion to be drawn from the projections obtained using the varying assumptions on fertility, along with an assumption of moderate gains in mortality and a decline in the volume of emigration, is that if the fertility declines observed in the period 1960–1970 continue the population would be considerably smaller, at the end of this century, than if no further declines occur. This point is emphasised by the fact that the difference between the high and low projections is small as compared with the difference between these and the population projected on the assumption that there is no further fertility decline. The impact that declining fertility would have on the age structure is clear: with declining fertility, about 33 per cent of the total population would be under 20 years of age by the year 2000; with constant fertility this proportion would be 45 per cent.

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