

CHAPTER 4 - SUMMARY OF FINDINGS

DE FACTO POPULATION

On Census Day, May 12, 1980, Bermuda's total de facto population (i.e., all persons who had spent the previous night in Bermuda) numbered 67,761. This total consisted of 33,621 males and 34,140 females. Thus there were 985 males for every 1,000 females living in Bermuda on Census Day. (See Table 1.1 in Chapter 5.)

The total de facto population was made up of three major categories of persons: the Civilian Population, including

inmates of hospitals and prisons, numbering 54,670 or 81%; the Armed Forces and their dependents living on bases numbering 2,173 or 3%; and Visitors and Transients numbering 10,918 or 16%.

By comparison with the 1970 Census figures, the de facto population in 1980 was only 1,275 greater. Of the three major groups, the Civilian population was up 1,694, Visitors and Transients were up 5,467 and Foreign Armed Forces residing on bases were down 821.

TABLE (1) SUMMARY OF MAJOR COMPONENTS OF THE DE FACTO POPULATION  
FOR 1980 AND 1970 (Derived from Table 1)

Category of Population	De Facto Population				
	Number (2)		Percentage Distribution (1)		Percentage Change 1970 to 1980
	1980	1970	1980	1970	
TOTAL	67,761	66,486	100	100	2%
Civilian Population	54,050 (3)	52,330	80	79	3%
Hospitals and Prisons	620	646	1	1	-4%
Armed Forces and Dependents	2,173	2,994	3	5	-27%
Visitors and Transients					
Civilian	10,918	5,451	16	8	100%
Military	0	5,065 (4)	0	8	-100%

- (1) Any apparent discrepancies between sums of constituent items and totals are due to rounding of figures.
- (2) 1980 totals include Foreign Armed Forces Personnel and their dependents living off bases. These were not expected to exceed 500.
- (3) As was the practice in 1970, the resident population excludes persons whose age or sex was not stated. This figure is 371 persons for 1980.
- (4) In 1970, there were 5,065 visiting military personnel in NATO exercises.

It is notable that between 1970 and 1980 the most significant change in the total de facto population is the growth in the number of visitors and transients. This group consists of two categories of persons:

- visitors living in tourist establishments licensed to have 5 or more beds, as well as passengers on cruise ships or yachts
- visitors living in smaller guest houses or private dwellings such as visiting relatives or persons on business assignments expected to last for a period less than 3 months.

These two groups of visitors numbered 9,724 and 1,194, respectively. This marked rise in what constitutes "tourists" was associated with a comparatively small increase in the size of the resident civilian population. This finding indicates that the island experienced a significant improvement over the past decade in the return from tourism per head of population.

The implication that the welfare of Bermudians improved materially over the last decade is substantiated by an analysis of the main demographic, economic and housing characteristics of Bermuda's resident civilian, non-institutional population.

This is the subject of the remainder of this analysis. The aforementioned population consists of the resident civilian population including Foreign Armed Forces Personnel and their dependents living off bases, but it excludes inmates of prisons, asylums and hospitals.

#### DISTRIBUTION AND COMPOSITION OF THE CIVILIAN NON-INSTITUTIONAL POPULATION

The civilian non-institutional population - hereinafter referred to as "the population" - rose from 52,330 in 1970 to 54,050 in 1980, a rise of only 1,720 or 3%. The absolute change in population was the smallest recorded since the period 1911-1921 when the gain was 1,133. As a result of this small growth, population density per square mile rose slightly from 2,829 per square mile to 2,922. (Tables ii, iii, iv)

The population increase was due to a substantial slowing down in the rate of natural increase and a net outflow of residents. The population gain due to natural increases (excess of births over deaths) was 4,800 between 1970 and 1980, down 2,500 from the 1960 to 1970 increase of 7,300. Since the recorded increase from 1970 to 1980 was only 1,720, it can be assumed that there was a net outflow of 3,080 between 1970 and 1980. This net

outflow is in stark contrast with the net inflow of approximately 2,400 estimated for the 1960 to 1970 decade.

The declining rate of natural increase was noted first during the decade of the sixties at which time it was attributed to a highly successful family planning programme. There can be little doubt that similar considerations continue to apply even more positively in the seventies.

The net outflow in population probably reflects a slowing down in the rate of economic growth in the seventies following a period of substantial growth in the latter half of the sixties. It was noted in the 1970 Census Report that the "high net in migration was in response to marked industrial expansion which greatly exceeded the capacity of the local labour market both in terms of numbers and skills". While it continues to be true in 1980 that the local economy is dependent upon a foreign labour supply, the net outflow of residents implies either that this dependence has lessened during the recent decade or that Bermudians are emigrating or some combination of events.

All parishes except Pembroke and Paget experienced population gains between census dates. In fact, the parishes reporting increases had gains at least twice as large as the national

average of 3%. However, the parish gains reflected not only natural increase but also some net inflow from Pembroke which recorded significant losses.

Southampton with a 19% increase recorded the largest relative gain. As a result, its share of the population rose from 7% to 9% and its rank in terms of size from the eighth to the fifth largest parish. Gains of between 13% and 14% were noted for St. George's and Hamilton respectively, while Smith's, Devonshire, Warwick and Sandys increased by between 7% and 10%.

The decrease in Pembroke continued a trend which became apparent in the decade of the fifties. Since that period, when the Pembroke population rose 8%, it decreased by 3% between 1960 and 1970 and suffered an even sharper decline in the recent decade.

The movement out of Pembroke is related to the past continued exodus to less populous parishes from the eastern half of Pembroke. However the sharp reversal in Paget would appear to be more related to the net outflow of residents than from internal shifts.

TABLE (ii) - DISTRIBUTION AND RATE OF GROWTH OF POPULATION FROM  
1970-1980 - TOWN, CITY AND PARISH

AREA	Population at Census Dates				
	Number		Percentage Distribution		Percentage Change
	1980	1970	1980	1970	1970 to 1980
All Bermuda	54,050*	52,330	100	100	3%
Town of St. George	1,647	1,604	3	3	3%
City of Hamilton	1,617	2,060	3	4	-22%
Parish (including Town and City)					
St. George's	4,587	4,055	8	8	13%
Hamilton	3,784	3,314	7	6	14%
Smith's	4,463	4,158	8	8	7%
Devonshire	6,843	6,251	13	12	9%
Pembroke	12,060	13,757	22	26	-12%
Paget	4,497	4,627	8	9	-3%
Warwick	6,948	6,489	13	12	7%
Southampton	4,613	3,881	9	7	19%
Sandys	6,255	5,798	12	11	8%

\* Population total of 54,050 excludes inmates of prisons and hospitals as well as those who did not report age or sex. (See Table 1.1 in Chapter 5.)

TABLE (iii) - HISTORIC RATES OF GROWTH OF BERMUDA'S CIVIL POPULATION -  
1911-1980

Period	Population at End of Period		Increase		Annual Rate of Growth Per Thousand Population
	Number	Number	Number	Percent	
1911 - 1921	18,860	1,133	6.4		6.2
1922 - 1931	26,522	7,662	40.6		34.8
1932 - 1939	29,547	3,025	11.4		13.6
1940 - 1950	36,136	6,589	22.3		18.5
1951 - 1960	42,640	6,504	18.0		16.7
1961 - 1970	52,976	10,336	24.2		21.9
1971 - 1980	54,670	1,694	3.2		3.2

Population densities varied considerably among the parishes. Despite a decline over the decade, Pembroke continued well in front of the rest with a density per square mile of 5,743 while Hamilton Parish, with a density of 1,921 continued as the parish

with the lowest number of persons per square mile. In addition to Pembroke, only Devonshire (3,621), Sandys (3,224) and Warwick (3,144) had densities greater than the national average of 2,922.

TABLE (iv) - POPULATION BY DENSITY AND AS A PERCENTAGE OF TOTAL - TOWN, CITY AND PARISH - 1970 and 1980

Area	Population Density per Square Mile		Percentage Distribution of Parish Population		Area in Square Miles*
	1980	1970	1980	1970	1980
All Bermuda	2,922	2,829	100	100	18.5
Town of St. George	3,108	3,026	3	3	0.53
City of Hamilton	5,989	7,630	3	4	0.27
Parish (including Town and City)					
St. George's	2,048	1,810	8	8	2.24
Hamilton	1,921	1,682	7	6	1.97
Smith's	2,361	2,200	8	8	1.89
Devonshire	3,621	3,307	13	12	1.89
Pembroke	5,743	6,551	22	26	2.10
Paget	2,204	2,268	8	9	2.04
Warwick	3,144	2,936	13	12	2.21
Southampton	2,078	1,748	9	7	2.22
Sandys	3,224	2,989	12	11	1.94

\* Source: Department of Planning  
Excludes U.S. Naval Air Station 1.61 square miles and U.S. Naval Annexe 0.41 square mile.

Typical of countries experiencing low fertility, the median age of Bermuda's population increased over the decade from 25 years, 11 months in 1970 to 28 years, 10 months in 1980 and whereas in 1970 persons under 20 years of age represented 38% of the population, in 1980 their share has fallen to 31%. (See Table v.)

Table v, illustrates the change in structure of the population by broad age bands between 1970 and 1980. The striking feature in the table is the marked fall in the numbers of persons under the age of 5 and between the ages of 5 to 14. This trend first emerged in the decade of the sixties when family planning got fully underway. It is clear that this trend accelerated in the seventies as the pre-school group declined by 20% from 4,664 to 3,733 and the primary and secondary school populations as represented by children aged 5 to 14 fell by 22% from 10,856 to 8,514. While the fall in the numbers of the latter group may to some extent reflect the incidence of overseas education, it is also undoubtedly related to the decline in fertility begun in the sixties. Certainly these marked declines among the school-age population have important implications for staff and investment in education plant.

Among the older age groups, persons aged 65 and older recorded a gain of 1,129 or 34% over the decade, thereby increasing their share of the population from 6 percent to 8 percent. Needless to say, this event implies vastly increased expenditure on the care of the aged by both private households and the national government.

All other age groups in the interval 15 to 64 recorded increases of from 10% to 13%. (Thus it can be inferred that the potential labour force grew faster than the population, creating the potential for improved living standards assuming full employment and constant or higher labour force participation rates.)

The age/sex structure of the population is also worthy of brief comment, particularly with respect to its implications for the labour force and fertility. With respect to the labour force, the increases shown for females aged 15-29 and 30-34 are substantially larger than that for males both in absolute and percentage terms. This finding implies much greater pressure on the labour market for jobs by women than by men in the coming decade.

By the same token, the fact that women in the child-bearing age groups have recorded an increase over the decade substantially greater than the national average suggests that there will be

some increases in the annual number of children born over the coming decade, assuming of course that continued declines in fertility does not offset this trend.

TABLE (v) - DISTRIBUTION OF POPULATION BY SEX AND SELECTED AGE GROUPS - 1980 AND 1970

AGE GROUP	Population at Census Date				
	Number		Percentage Distribution		Percentage Change
	1980	1970	1980	1970	1970 to 1980
Both Sexes	54,050	52,330	100	100	3%
Under 5	3,733	4,664	7	9	-20%
5-14	8,514	10,856	16	21	-22%
15-29	14,886	13,500	28	26	10%
30-44	12,014	10,706	22	20	12%
45-64	10,432	9,262	19	18	13%
65 and Over	4,471	3,342	8	6	34%
MALES	26,350	26,293	100	100	0
Under 5	1,862	2,405	7	9	-23%
5-14	4,362	5,375	17	20	-19%
15-29	7,299	7,004	28	27	4%
30-44	6,001	5,567	23	21	8%
45-64	5,003	4,538	19	17	10%
65 and Over	1,823	1,404	7	5	30%
FEMALES	27,700	26,037	100	100	6%
Under 5	1,871	2,259	7	9	-17%
5-14	4,152	5,481	15	21	-24%
15-29	7,587	6,496	27	25	17%
30-44	6,013	5,139	22	20	17%
45-64	5,429	4,724	20	18	15%
65 and Over	2,648	1,938	10	7	37%

## RACE AND NATIVITY

The racial composition of the civilian population in 1980 was 33,158 black (61%) and 20,892 white and other races (39%). In 1970 comparable proportions were 59% black and 41% white and other races.

Viewed in terms of nativity, the Bermuda-born population at 39,880 was up only 2,046 or 5% over the decade indicating a substantial out-migration since it has already been noted that the balance of births and deaths was 4,800. In addition, foreign-born residents decreased by 326 or 2% during the same period, thereby reinforcing the trend towards population stabilisation.

TABLE (vi) - DISTRIBUTION AND RATE OF GROWTH OF POPULATION CLASSIFIED BY RACE AND NATIVITY - 1980 AND 1970

RACE and NATIVITY	Population at Census Dates				
	Number		Percentage Distribution		Percentage Change
	1980	1970	1980	1970	1970 to 1980
All Bermuda	54,050	52,330	100	100	3%
Black	33,158	30,897	61	59	7%
White and Other	20,892	21,433	39	41	-3%
Bermuda Born	39,880	37,834	74	72	5%
Black	30,722	28,707	57	55	7%
White and Other	9,158	9,127	17	17	0
Foreign Born	14,170	14,496	26	28	-2%
Black	2,436	2,190	5	4	11%
White and Other	11,734	12,306	22	24	-5%

The main country of origin of the foreign born was the United Kingdom with 34% followed by the United States with 20% and Azores/Portugal with 12%. Canada and the Commonwealth Caribbean each contributed 10%.

Given the overall decline in the size of the foreign-born population, it comes as no surprise that three of the countries of origin sent fewer people to reside here than in the previous decade (see Table vii). In fact, only the foreign-born residents from Canada and the United States increased their numbers since 1970, and this resulted to some extent from the inclusion of previously excluded Armed Forces Personnel living off bases in the resident population count.

TABLE (vii) - DISTRIBUTION AND RATE OF GROWTH OF FOREIGN-BORN POPULATION BY COUNTRY OF ORIGIN - 1980 AND 1970

Country or Region of Origin	Foreign-Born Population				
	Number		Percentage Distribution		Percentage Change
	1980	1970	1980	1970	1970 to 1980
All Foreign Born	14,170	14,496	100	100	-2%
United Kingdom	4,840	5,234	34	36	8%
Canada	1,421	1,221	10	8	16%
Commonwealth Caribbean	1,419	1,621	10	11	-12%
United States	2,795	2,363	20	16	18%
Azores/Portugal	1,759	2,350	12	16	-25%
Other and Not Stated	1,935	1,707	14	12	13%



It is well to point out here that the foreign born are not to be equated as non-Bermudians. Many of the foreign born have acquired Bermuda Status either by grant or through marriage. This is revealed in special tabulations on nativity and citizenship not included in this volume but scheduled to be made available in due course. These information sources indicate that 68% of the foreign born are without Bermuda status, roughly the same proportion as in 1970.

One of the explanations for the high proportion of the foreign born who are without Bermuda Status is the high turnover rates for this group of residents. Again, information contained in tabulations not included in this set point out that some 40% of the foreign born have resided in Bermuda for 5 years or less, the minimum time necessary to apply for status. In addition, over 40% are citizens of non-Commonwealth countries and are, therefore, not eligible for citizenship without first becoming naturalised as British Subjects.

#### RELIGION

The religious denomination with the largest number of adherents continues to be the Church of England. In fact, despite a significant decline in the number claiming to follow

that faith, the reported figure of 20,163 in May 1980 was substantially greater than the 7,458 reported for the next largest denomination, the Roman Catholic Church. (See Table ix.)

In addition to the above named churches, the African Methodist Episcopal and the Methodists continue their claim to being among the four largest denominations in Bermuda. However, all four experienced declines in their share of persons claiming these faiths.

Significant gains in adherents were experienced for the Seventh Day Adventist, Pentecostal and Church of God denominations. Also of importance is the emergence of new religious groups as indicated by the marked growth in the Other, None and Not Stated Group.

The increases in what is often termed the fundamentalist Christian faiths as well as the emergence of non-Christian faiths and cults have been reported widely in the United States over the past decade. In anticipation that such trends would emerge in Bermuda, tabulations have been prepared by which the demographic economic and housing characteristics of the population within broad categories of religions have been prepared. It is expected that these reports will be of immense interest to institutions

and individuals whose concern is the spiritual well-being of the community as well as to those interested in the influence of religious attitudes on fertility.

TABLE (viii)- DISTRIBUTION AND RATE OF GROWTH OF MAJOR RELIGIOUS DENOMINATIONS AT CENSUS DATES - 1980 AND 1970

	Major Religious Groups				
	Number		Percentage Distribution		Percentage Change
	1980	1970	1980	1970	1970 to 1980
All Denominations	54,050	52,330	100	100	3%
Church of England	20,163	23,687	37	45	-15%
Roman Catholic	7,458	7,629	14	15	-2%
African Methodist					
Episcopal	5,531	5,503	10	11	1%
Methodist	3,306	3,591	6	7	-8%
Seventh Day					
Adventist	2,731	1,861	5	4	47%
Presbyterian/					
Congregational	1,783	1,759	3	3	1%
Pentecostal	1,774	1,245	3	2	42%
Salvation Army	1,135	na	2	na	na
Brethren	1,094	1,093	2	2	0%
Church of God	896	701	2	1	28%
Baptist	740	668	1	1	11%
Other, None and					
Not Stated	7,439	4,593	14	9	62%

#### FERTILITY

It was noted in chapter three that fertility is the actual bearing of children by women as they pass through the child-

bearing age 15-44 years. Also noted was that the type of union which resulted in children is an important determinant of risk of pregnancy. Census 80 deals extensively with fertility and some of the key findings are highlighted below.

In the discussion of the age structure of the population, it was noted that the number of women aged 15-44 increased significantly between 1970 and 1980 to the extent that their relative share in the population stood at 50%, up 4 percentage points from their 1970 proportion of 46%.

The question arises, what are the implications of this increase for population growth? Does more fertile women mean more children and a reversal of past trends in falling birth rates? While explicit answers to these questions must await further study the following facts are of interest.

Table (ix) provides summary statistics of the child-bearing activity for broad ages of women. Notably, although the number of women rises substantially over the decade, the number of children born to all women increases by only 1%. Thus, the average number of children born per 1,000 women falls from 2,119 to 1,854. The fall in average children per woman is even more marked in the child-bearing age group where lower average

children per woman more than offset increasing averages for women whose fertility cycle has ended. Nor is this phenomenon explained by higher numbers of women with no children. The 1980 findings reveal that women who have borne at least one child--designated mothers--also record a decline in the average number of children. Further, for mothers of all ages, the averages fell.

An important factor in determining the probability that a woman will have a child is the probability of her proximity to

a mate. Thus, married women can be expected to be at greater risk than unmarried women, improved contraceptive techniques notwithstanding. Table (xi) summarises the union status of women aged 15 to 64 not attending school. The key finding is that since 1970 relatively more women have opted for a life unattached to a male, a factor which would reinforce the falling fertility rates noted earlier.

TABLE (ix) - SUMMARY MEASURES FOR ALL WOMEN (1) AGED 15 TO 64 NOT ATTENDING SCHOOL AND ALL CHILDREN BORN TO THESE WOMEN FOR SELECTED AGE GROUPS - 1980 AND 1970 COMPARED

Age Group	All Women		All Women With Children		All Children Ever Born to Women		Mothers per 1,000 Women		Children per 1,000 Women		Children per 1,000 Mothers	
	1980	1970 <sup>(2)</sup>	1980	1970 <sup>(2)</sup>	1980	1970 <sup>(2)</sup>	1980	1970	1980	1970	1980	1970
All Women	17,700	15,318	12,223	10,915	32,820	32,464	691	713	1,854	2,119	2,685	2,974
Women 15-29 years	6,356	5,504	2,715	2,830	4,224	5,210	427	514	665	947	1,556	1,841
Women 30-44 years	5,956	5,108	4,896	4,353	12,367	13,894	822	852	2,076	2,720	2,526	3,192
Women 45-64 years	5,388	4,706	4,612	3,732	16,229	13,360	856	793	3,012	2,839	3,519	3,580

(1) Excludes women who did not state whether or not they had children.

(2) Data for 1970 were derived from Volume 8, Fertility, 1970 Population Census of the Commonwealth Caribbean.

Table (x) shows that since 1970 the proportion of women married and living with their husbands has fallen from 63% to 55%. Further, those who no longer live with their husbands or who never have had a husband or partner have increased as a percentage of the population.

Of special significance is the increase in the women categorised as "Other". Most of these women were reported as

being in common-law relationships and, as a group, they have shown a marked rise.

Much of the trend against marriage reflects behaviour patterns of women of child-bearing age. In 1970, 59% of these women reported they were married and living with their husbands. Since 1970, many of these women have exited from the 15 to 44 group and have been replaced by a younger group who show more reluctance either to enter into or remain in the married state.

TABLE (x) - DISTRIBUTION OF WOMEN NOT ATTENDING SCHOOL IN SELECTED AGE GROUPS BY UNION STATUS AT THE TIME OF CENSUS OR AT AGE 45 - 1980 AND 1970

Age Group	All Women		Married		No Longer Living With Husband		Never Had Husband or Partner		Other	
	No.	%	No.	%	No.	%	No.	%	No.	%
All Women	20,525	100	11,347	55	2,642	13	4,839	24	1,697	8
1980 15-44 years	12,451	100	5,949	48	1,234	10	4,018	32	1,250	10
45 years and over	8,074	100	5,398	67	1,408	17	821	10	447	6
All women	280	100	10,836	63	2,060	12	3,681	21	703	4
1970 15-44 years	10,633	100	6,313	59	830	8	2,926	28	564	5
45 years and over	6,647	100	4,523	68	1,230	19	755	11	139	2

Data for 1970 were derived from Volume 8, Union Status, 1970 Population Census of the Commonwealth Caribbean.

Further insight on the reasons for declining fertility are obtained from the tabulations of age of mothers at the birth of their first and last live-born child. According to Table (xi), it would appear that the age of mothers at the birth of first live-born child has not changed. Further, the age at birth of last live-born child has fallen only marginally. (See Tables xii and xiii.)

In 1980 the proportion of women who had live births before the age of 20 declined slightly by one percentage point. However, the median age of mothers at the initial live birth was unchanged from 1970 at 21.8. These data suggest that fertility has been relatively unaffected by changes in the age for commencing child-bearing.

When the age at birth of last live-born child is considered, the data point to a slightly lower median age for ceasing child-bearing activity. It may be concluded therefore that a summary inspection of the fertility tabulations do not indicate a significant impact on child-bearing due to variations in the ages at which women begin and end their child-bearing cycle.

The object here is merely to note some of the more obvious trends in fertility. More definitive statements must await a full analysis of fertility tabulations included in this publication as well as a consideration of the influence of race, nativity and religion in future studies devoted to this topic.

TABLE (xi) - MEDIAN AGE OF MOTHERS AT BIRTH OF FIRST AND LAST LIVE-BORN CHILD - 1980 AND 1970

Census Date	Total Mothers	Median Age	
		Age at Birth of First Live-born Child	Age at Birth of Last Live-born Child
1980	12,100	21.8	27.7
1970	10,900	21.8	28.0
Difference			
1970-1980	1,200	0	0.3

TABLE (xii) - FEMALE POPULATION AGED 15-64 NOT ATTENDING SCHOOL  
BY AGE OF MOTHER AT BIRTH OF FIRST LIVE-BORN  
CHILD - 1980 AND 1970

Mothers Age at First Live birth	Number		Percentage Distribution		Percentage Change
	1980	1970	1980%	1970%	1970/1980
Total	17,880	15,355	100	100	16%
Under 20	4,410	3,933	25	26	12%
20-24	4,453	4,103	25	27	9%
25-29	2,257	1,916	13	12	18%
30-34	752	686	4	4	10%
35-39	194	222	1	2	-13%
40-44	39	38	0	0	3%
45 or older	0	0	0	0	0%
Not applicable	5,775	4,455	32	29	30%

TABLE (xiii) - FEMALE POPULATION AGED 15-64 NOT ATTENDING SCHOOL  
BY AGE OF MOTHER AT BIRTH OF LAST LIVE-BORN  
CHILD - 1980 AND 1970

Mothers Age at Last Live birth	Number		Percentage Distribution		Percentage Change
	1980	1970	1980%	1970%	1980/1970
Total	17,880	15,355	100	100	16%
Under 20	1,280	1,090	7	7	17%
20-24	2,850	2,582	16	17	10%
25-29	3,453	2,938	19	19	18%
30-34	2,671	2,322	15	15	15%
35-39	1,279	1,402	7	9	-9%
40-44	384	509	2	3	-25%
45 or older	39	57	0	0	-32%
Not applicable	5,924	4,455	33	29	33%

What is strongly indicated at this point is that fertility rates are continuing to fall, and this fall seems likely to offset the impact of substantial increases in the numbers of women of child-bearing ages. This finding deserves additional study since future trends in births have important implication not only for education policy but for economic policy, since changes in fertility levels influence the number of women who will be working in the coming decade and the kind of work they will do.

#### EDUCATION

The 1980 Census looks in depth at education for its own sake and also for its influence on other population characteristics. This section looks at educational attainment in terms of the highest level of institution attended as well as the highest exam passed at the secondary level or higher.

Table (xiv) indicates that between 1970 and 1980, the proportion of the population aged 5 or older who had attended a college or university had risen from 5% to 16%. In terms of actual numbers, this was an increase of from 2,322 to 8,036--a substantial gain.

TABLE (xiv) - DISTRIBUTION OF POPULATION AGED 5 OR OLDER BY SEX AND HIGHEST LEVEL OF EDUCATIONAL ATTAINMENT

Highest Level of Educational Attainment	Population Age 5 or Older			Percentage Distribution		
	Total	Male	Female	Total %	Male %	Female %
1980						
All Bermuda	50,317	24,488	25,829	100	100	100
Nursery/Infant,						
Primary	16,316	8,343	7,973	32	34	31
Secondary	22,725	10,656	12,069	45	44	47
University/ College (1)	8,036	4,004	4,032	16	16	16
None	808	440	368	2	2	1
Other and Not Stated	2,432	1,045	1,387	5	4	5
1970 (2)						
All Bermuda	47,665	23,882	23,778	100	100	100
Nursery/Infant,						
Primary	21,516	11,244	10,272	45	47	43
Secondary	22,721	10,666	12,055	48	45	51
University/ College	2,322	1,335	987	5	6	4
None	638	417	221	1	2	1
Other and Not Stated	468	225	243	1	1	1

(1) All references to Bermuda College in the Chapter 5 tabulations include any other colleges as well.

(2) Data for 1970 were derived from Volume 6, Part 3, 1970 Population Census of the Commonwealth Caribbean.

Table (xv), which looks only at the population not attending school, shows that of those who had attended college or university, 6,494 obtained a diploma or a degree compared with 2,213 in 1970. Thus by 1980, 17% of Bermuda's adult population had

obtained a degree or diploma compared with 6% a decade ago. Clearly Bermudians are meeting the challenge of preparing themselves for the increased skill requirements currently demanded.

TABLE (xv) - DISTRIBUTION OF POPULATION AGED 16 YEARS AND OVER NOT ATTENDING SCHOOL BY SEX AND EXAMINATION PASSED -  
1970 AND 1980 COMPARED

	Population Aged 16 Years and Over 1980						Population Aged 16 Years and Over 1970					
	Total	Number		Percentage Distribution			Total	Number		Percentage Distribution		
		Male	Female	Total	Male	Female		Male	Female	Total	Male	Female
All Bermuda	38,893	18,751	20,142	100	100	100	35,887	18,053	17,834	100	100	100
No Exams Passed	21,465	10,866	10,599	55	58	53	25,068	13,025	12,043	70	72	68
School Leaving Certificate (inc. BSSC)	4,422	1,933	2,489	11	10	12	3,925	1,729	2,196	11	10	12
G.C.E. "O" 1 to 4 passes	2,781	1,084	1,697	7	6	8	2,051	901	1,150	6	5	6
G.C.E. "O" 5 passes, G.C.E. "A" one or more passes	1,944	897	1,047	5	5	5	2,404	1,087	1,317	7	6	7
Diploma or Degree	6,494	3,143	3,351	17	17	17	2,213	1,211	1,002	6	7	6
Other and Not Stated	1,787	828	959	5	4	5	226	100	126	1	1	1



## ECONOMIC ACTIVITY

### Introduction

The impact of changes in the economy of Bermuda on the labour force can now be measured with reasonable precision since both the 1970 and 1980 censuses utilised the Standard Industrial Classification System (S.I.C.) to categorise economic activity. However, because the S.I.C. system used for 1980 was a revised version of that used in 1970, some adjustment had to be made to the 1970 figures to ensure consistency.

Similar considerations forced an adjustment to the grouping of occupations used in 1970 to ensure comparability with the Bermuda Classification of Occupation. The major adjustment here was to reclassify managers in retail, wholesale, and catering industries to the occupational group, "Administrators and Managers".

However, no adjustment was made to the 1970 figures to take account of the fact that the definition of the labour force and components used for Census 80 is based upon a reference period of one week and not 12 months as in 1970. Despite these crude modifications to the 1970 data, it was possible to reveal the fundamental changes taking place in the size and composition of Bermuda's labour force with a high degree of accuracy.

## Economically Active Population

As implied by the analysis of population change over the decade, the growth of Bermuda's economically active population reflected the increases noted in the resident population aged 15 years or older. Although the population used in the analysis of the labour force for 1980 is slightly different from that used for 1970 (including only persons aged 16 years old and not attending primary or secondary school), it was not expected to behave any differently than did the somewhat larger group. This expectation was realised since the population not attending primary or secondary school increased by 4,570 or 13% over the decade, a change similar to that for the larger population.

The economically active population is so defined because it is based upon the main activity of respondents during the 12 months prior to the enumeration date as was the 1970 data. Thus, the economically active population consists of persons who worked or looked for work or were available for work.

The economically active population increased by 3,353 or 12% between 1970 and 1980 to 30,889. This advance was slightly smaller than that recorded for the entire adult population and, as a result, the percentage of economically active people in the adult population fell slightly. (See Table xvi.)

The increase in the economically active population resulted from an increase of 11% in the number of persons who worked and an almost threefold increase in the ranks of those who looked for work. As a result, job seekers increased their relative share of the adult population at the expense of the working members.

When sex is considered, changes over the decade are quite dramatic. The number of men in the work-force rose by only 404 or 2%, even though the number of adult males rose by 1,444 or 8%. As a result, the proportion of males economically active fell from 94% in 1970 to 89% in 1980.

As a consequence of the relatively slow growth of the number of males economically active, the proportion of employed males in the male population fell from 93% to 87%. However, the proportion of those unemployed doubled.

On the other hand, women reported as economically active increased by 2,949 or 27% over the decade. This growth was relatively greater than that recorded for all adult women. As a result, the proportion of women economically active rose 5 full percentage points to 68% from 1970 to 1980.

It is important to note that the significant gains in labour force participation for women indicate that not only were more women available for work, but also that significant numbers opted to become economically active in preference to the more traditional role of home duties. To the extent that this influence is true, it follows that the increased desire of women to participate in the work-force will reinforce already ingrained attitudes toward smaller families and suggests that low fertility levels will be a continuing feature of Bermuda's demographic profile in the immediate future.

TABLE (xvi) - DISTRIBUTION OF POPULATION NOT ATTENDING SCHOOL (PRIMARY/SECONDARY)  
BY SEX AND BY ECONOMIC ACTIVITY - 1970 AND 1980\*

Economic Activity	Population Aged 16 Years and Over				
	Number		Percentage Distribution		Percentage Change
	1980	1970 (1)	1980	1970 (1)	1980 to 1970 (1)
Both Sexes	39,549	34,979	100	100	13%
Economically Active	30,889 (2)	27,536	78	79	12%
Worked	30,282	27,271	77	78	11%
Looked for Work	607	265	2	1	129%
Not Economically Active	8,660	7,443	22	21	16%
Males	19,050	17,606	100	100	8%
Economically Active	16,930	16,526	89	94	2%
Worked	16,619	16,369	87	93	2%
Looked for Work	311	157	2	1	98%
Not Economically Active	2,120	1,080	11	6	96%
Females	20,499	17,373	100	100	18%
Economically Active	13,959	11,010	68	63	27%
Worked	13,663	10,902	67	63	25%
Looked for Work	296	108	1	1	174%
Not Economically Active	6,540	6,363	32	37	3%

(1) Original figures for 1970 referred to population aged 14 years and over. These figures have been adjusted to bring them in line with the 1980 totals.

(2) This figure becomes 31,436 when the definition of "economically active" is based on one week rather than one year. (See Table xvii on following page.)

### Trends in Labour Force

Bermuda's labour force includes only those people who worked or looked for work during the week prior to enumeration. In this respect it differs in concept to the economically active population which is defined in terms of what a person did during most of the year. Only persons who qualified as members of the labour force were required to provide information on work status, occupation, industry, and hours worked. A report of the key findings follows. (See Table xvii.)

Bermuda's labour force numbers 31,436 in 1980 up 4,117 or 15% over 1970. The increase reflected a rise of 3,287 in the number of women employed as against an increase of only 830 in the number of men.

Overall, 81% of the work-force was engaged a full year, a proportion which was unchanged from 1970. Typically, relatively more men than women worked a full year. However, the proportion of women engaged a full year rose by 3 percentage points to 79%, while that for men fell slightly by 1 percentage point to 83%.

TABLE (xvii) - LABOUR FORCE BY SEX AND NUMBER OF MONTHS WORKED DURING 12 MONTHS PRECEDING CENSUS

Number of Months Worked	Working Population 1980					
	Total		Male		Female	
	No.	%	No.	%	No.	%
Total	31,436	100	17,232	100	14,204	100
Under 2 Months	782	2	344	2	438	3
2-5 Months	948	3	452	3	496	3
6-11 Months	3,653	12	1,798	10	1,855	13
Full Year	25,510	81	14,339	83	11,171	79
Not Stated	543	2	299	2	244	2

  

Number of Months Worked	Working Population 1970					
	Total		Male		Female	
	No.	%	No.	%	No.	%
Total	27,319	100	16,402	100	10,917	100
Under 2 Months	673	2	351	2	322	3
2-5 Months	1,187	4	583	4	604	6
6-11 Months	3,336	12	1,656	10	1,680	15
Full Year	22,123	81	13,812	84	8,311	76
Not Stated	-	-	-	-	-	-

The 1980 figures show a shift in the occupational status of the work-force towards increased employment by government. Persons employed by government increased 45% over the decade, thereby increasing government's share of the work-force from 12%

to 15%. Both men and women shared in this shift to the same extent.

The gains recorded by government were at the expense of employment by non-government institutions, a phenomenon reported for both men and women at approximately the same rate.

TABLE (xviii) - LABOUR FORCE BY SEX AND TYPE OF WORKER

Occupational Status	Labour Force 1980					
	Total		Male		Female	
	No.	%	No.	%	No.	%
Total	31,436	100	17,232	100	14,204	100
Worked for Others						
Government	4,829	15	2,751	16	2,078	15
Non-Government	23,180	74	12,033	70	11,147	78
Have Own Business or Farm						
With Paid Help	1,171	4	951	6	220	2
Without Paid Help	1,250	4	986	6	264	2
Did Not Work	771	2	390	2	381	3
Not Stated	235	1	121	1	114	1
Occupational Status	Labour Force 1970					
	Total		Male		Female	
	No.	%	No.	%	No.	%
Total	27,319	100	16,402	100	10,917	100
Worked for Others						
Government	3,341	12	2,065	13	1,276	12
Non-Government	21,766	80	12,510	76	9,256	85
Have Own Business or Farm						
With Paid Help	1,146	4	993	6	153	1
Without Paid Help	1,012	4	817	5	195	2
Did Not Work	0	0	0	0	0	0
Not Stated	54	1	19	0	37	0

The increased labour supply was absorbed by expanding employment opportunities in all service industries except personal and household services which declined. In fact, job creation in the expanding industries was sufficiently large to utilise workers released from those industries showing reduced employment levels.

Although virtually all the service industries experienced marked advances in employment, the most important gains occurred in hotels, restaurants and clubs; this category increased its share of the work-force by 2 percentage points. Other industries substantially increasing their share of the work-force were public administration and defence, other community/social services, education, health and international companies, although the extent to which the last group expanded is unknown since no special classification existed for it in 1970.

Of the industries experiencing declines in relative strength, personal and household services was down 5 percentage points to 7% of the work-force and construction was lower by 4 percentage points to 9% of the work-force.

TABLE (xix) - LABOUR FORCE BY MAJOR INDUSTRIAL GROUP -  
1970 AND 1980

Industrial Group (1)	Number		Percentage Distribution		Percentage Change
	1980	1970	1980	1970	1970 to 1980
ALL BERMUDA	31,436	27,319	100	100	
Agriculture, Fishing and Quarrying	402	431	1	2	-7%
Manufacturing	930	981	3	4	-5%
Electricity, Gas and Water	385	419	1	2	-8%
Construction	2,746	3,562	9	13	-23%
Wholesale and Retail Trade	4,601	4,312	15	16	7%
Hotels, Restaurants and Clubs	5,457	4,123	17	15	32%
Transport and Storage	1,886	2,121	6	8	-11%
Communications	679	649	2	2	5%
Banks, Insurance and Real Estate	2,013	1,628	6	6	24%
Business Services	1,233	1,060	4	4	16%
Public Administration and Defence	2,536	1,916	8	7	32%
Education	1,140	886	4	3	29%
Health	1,186	937	4	3	27%
Other Community/ Social Services	506	350	2	1	45%
Recreational and Cultural Services	630	508	2	2	24%
Personal and Household Services	2,336	3,166	7	12	-26%
International Companies	1,473	-	5	-	na
Other Classifications	1,307	270	4	1	384%

(1) See following page

(1) The 1970 information displayed in Table xix had to be modified from the original to take into account changed industrial classifications in 1980. These changes involved the following industry groups:

Manufacturing  
Electricity, gas and water  
Other community/social services  
Personal and household services  
Other classifications

Two sets of data were used from the Bermuda Census Report; these were Table 30--Detailed Industrial Tabulation--and Table 35c.

As far as was feasible the control totals for the industrial groupings were derived from Table 35c. Finer breakdowns were obtained from Table 30.

The total for manufacturing was obtained by removing the following industry sub-groups (see Table 30).

Manufacture of machinery products and repairs (148).  
Manufacture of transports equipment and repairs (574).  
Miscellaneous manufacturing industries and repairs (57) i.e., 1,760 from Table 35c and 779 from Table 30.

The total for electricity, gas and water was obtained by removing sanitation services (30) from the total in 35c.

Other community/social services was the sum of non-profit institutions (320) and sanitation services (30), both from Table 30.

Personal and household services included personal services (2,062), miscellaneous services (302), and the total of the repairs industries previously included under manufacturing (779).

In addition, 23 employees from other industry groups were added as a balancing item.

The total for other classifications and not stated (270) was repeated from Table 35c. All other industry groups were repeated unmodified from Table 30.

Since industrial expansion or decline determines the demand for particular types of workers, it follows that those occupations which are used in relatively high proportion by expanding industries will themselves expand. Accordingly, the number of professional, technical, administrative, managerial and clerical workers required increased in response to the demand in the service industries. Thus in 1980 these groups of workers accounted for 43% of the labour force compared with 38% in 1970.

(See Table xx.)

All other occupational groups lost ground in 1980 with respect to their share of the work-force even though only production and related workers actually reported fewer numbers than in 1970. Sales and service workers both suffered declining shares of the labour market despite expansion in the trade, hotel and restaurant industries.

The most important decline occurred among production and related workers who bore the brunt of the declining importance of manufacturing, construction, and transport and storage industries as a source of employment.

TABLE (xx) - LABOUR FORCE BY OCCUPATIONAL GROUP

Occupational Group (1)	Economically Active Population				
	Number		Percentage Distribution		Percentage Change
	1980	1970	1980	1970	1980 to 1970
All Occupations	31,436	27,319	100	100	15%
Professional, Technical and Related Workers	4,643	3,603	15	13	29%
Administrative and Managerial	2,587	1,994	8	7	30%
Clerical and Related	6,219	4,702	20	17	32%
Sales Workers	1,999	1,866	6	7	7%
Service Workers	7,030	6,170	22	23	14%
Production and Related Workers, Transport Equipment Operators	6,111	7,107	19	26	-14%
All Other Occupations	2,847	1,877	9	7	52%

(1) See following page.

It is planned at some later stage of analysis of the census findings to look in depth at the implications of the overall changes in the economy for various population sub-groups such as blacks, whites, foreign born, citizens and so on. However, in 1970 some comments were made about the distribution of occupational groups by race and nativity and this discussion is repeated below.

Comparisons of the data for major occupational groups by race and nativity for 1980 with 1970 data adjusted for definitional changes reveals that the rise in the work-force over the decade took place almost entirely among blacks and the



(1) It was necessary to modify the information displayed in Table xx to take into account changed occupational classifications introduced by the Bermuda System of Occupational Classifications. Wherever possible control totals were obtained from Table 35b in the Bermuda Report of the 1970 Census and occupational detail were obtained from Table 29 of that same publication.

Occupational Groups affected were the following:

Administrative and Managerial  
Sales Workers  
Service Workers  
Production, Processing and Related Workers  
All Other Classifications

To the total of 982 for managers and administrators in Table 35b was added the following groups of managers reported in Table 29:

From sales workers:	
- Managers in wholesale and retail trade	412
- Working proprietors, wholesale and retail trade	231
From service workers:	
- Managers, catering and lodging services	234
- Working proprietors, catering and lodging services	126
From agricultural workers:	
- Farm managers	<u>9</u>
Total	1,012

The total for sales workers in Table 35b (2,509) was reduced by the total for the two sets of workers transferred to the administrative and managerial group (643).

The total for service workers in Table 35b (6,530) was reduced by the total for the two sets of workers transferred to the Administrative and managerial group (360).

To the total for production, processing and related workers in Table 35b was added the total for workers in transport and communications (215).

All other occupational classifications in Table 35b were combined to form the final group - all other classifications.

Bermuda born. As a result both categories of the population increased their share of total jobs. (See Tables xxi and xxii.)

The share of jobs held by blacks in all occupational groups rose over the decade. However, the most important gains in terms of earning power were in the professional, technical, administrative and managerial positions. Blacks' share of jobs in these categories rose by 6 percentage points for the former and 7 percentage points for the latter. Despite these gains, however, the share of white collar occupations held by blacks did not approach their share of total jobs except in the case of clerical and related positions.

In the face of the gains made by blacks, the share of whites in all major occupational groups fell with the largest decrease occurring in the clerical and sales occupations. However, although significant decreases were reported for professional, technical and management positions, whites still dominated these positions with 62% and 69% respectively of jobs in these categories.

When occupations are analysed by nativity, it is apparent that the Bermuda born accounted for all of the increase in the

work-force since 1970 and improved their share of jobs in all categories except sales workers. (See Table xxii).

As noted for blacks, the Bermuda born recorded their largest gains in the clerical and related positions. However, unlike blacks, the Bermuda born experienced a decrease in their share of sales positions.

The Bermuda born also made significant advances in the professional, technical and related field but are yet to match the share of these positions held by the foreign born.

The Bermuda born are gradually becoming dominant in the administrative and managerial fields with 59% of these positions held in 1980 as against 55% in 1970. However, in this case their present share of these jobs is substantially below their share of the work-force of 71%.

TABLE (xxi) - LABOUR FORCE BY OCCUPATIONAL GROUP AND RACE - 1970 AND 1980 (1)

Occupational Group	Labour Force by Race 1980			Labour Force by Race 1970			Percentage Change 1970 to 1980		
	Total	Black	White	Total	Black	White	Total	Black	White
All Occupations	31,436	19,189	12,247	27,319	15,390	11,929	15%	25%	3%
Professional, Technical and Related Workers	4,643	1,770	2,873	3,603	1,149	2,454	29%	54%	17%
Administrative and Managerial	2,587	795	1,792	1,994	477	1,517	30%	67%	18%
Clerical and Related	6,219	3,762	2,457	4,702	2,047	2,655	32%	84%	-7%
Sales Workers	1,999	1,029	970	1,866	929	937	7%	11%	4%
Service Workers	7,030	5,390	1,640	6,170	4,513	1,657	14%	19%	-19%
Production and Related Workers, Transport Equipment Operators	6,111	4,736	1,375	7,107	5,360	1,747	-14%	-12%	-21%
All Other Occupations	2,847	1,707	1,140	1,877	915	962	52%	87%	19%

PERCENTAGE DISTRIBUTION OF THE MAJOR OCCUPATIONAL GROUPS OF THE LABOUR FORCE BY RACE - 1970 AND 1980

	Labour Force by Race 1980			Labour Force by Race 1970		
	Total	Black	White	Total	Black	White
All Occupations	100	61	39	100	56	44
Professional, Technical and Related Workers	100	38	62	100	32	68
Administrative and Managerial	100	31	69	100	24	76
Clerical and Related	100	60	40	100	44	56
Sales Workers	100	51	49	100	50	50
Service Workers	100	77	23	100	73	27
Production and Related Workers, Transport Equipment Operators	100	77	23	100	75	25
All Other Occupations	100	60	40	100	49	51

(1) Note follows Table xxii.

TABLE (xxii) - LABOUR FORCE BY OCCUPATIONAL GROUP AND NATIVITY - 1970 AND 1980 (1)

Occupational Group	Labour Force by Nativity 1980			Labour Force by Nativity 1970			Percentage Change 1970 to 1980		
	Total	Bermuda	Foreign	Total	Bermuda	Foreign	Total %	Bermuda	Foreign
		born	born		born	born %		born %	
All Occupations	31,436	22,399	9,037	27,319	18,174	9,145	15%	23%	-1%
Professional, Technical and Related Workers	4,643	2,092	2,551	3,603	1,402	2,201	29%	49%	16%
Administrative and Managerial	2,587	1,520	1,067	1,994	1,060	934	30%	43%	14%
Clerical and Related	6,219	4,717	1,502	4,702	3,038	1,664	32%	55%	-10%
Sales Workers	1,999	1,522	477	1,866	1,493	373	7%	2%	28%
Service Workers	7,030	5,268	1,762	6,170	4,342	1,828	14%	21%	-4%
Production and Related Workers, Transport Equipment Operators	6,111	5,319	792	7,107	5,851	1,256	-14%	-9%	-37%
All Other Occupations	2,847	1,961	886	1,877	988	889	52%	98%	0%

PERCENTAGE DISTRIBUTION OF THE MAJOR OCCUPATIONAL GROUPS BY THE NATIVITY - 1970 AND 1980

	Labour Force by Nativity Percentage Distribution 1980			Labour Force by Nativity Percentage Distribution 1970		
	Total %	Bermuda	Foreign	Total %	Bermuda	Foreign
		born %	born %		born %	born %
All Occupations	100	71	29	100	67	33
Professional, Technical and Related Workers	100	45	55	100	39	61
Administrative and Managerial	100	59	41	100	53	47
Clerical and Related	100	76	24	100	65	35
Sales Workers	100	76	24	100	80	20
Service Workers	100	75	25	100	70	30
Production and Related Workers, Transport Equipment Operators	100	87	13	100	82	18
All Other Occupations	100	69	31	100	53	47

(1) Adjustment of the occupational classifications for all Bermuda, made necessary similar adjustments for the classifications by race and nativity (Tables xxi and xxii). For both sets of data the adjustments involved modifications of the reported totals in Tables 36b and 39b of the Bermuda Report of the 1970 Population Census. The adjustments involved the following occupational groups:

Administrative and managerial  
Sales workers  
Clerical workers  
All other occupations

In the previous note on occupational classifications it will be recalled that the administrative and managerial group were augmented by 643 managers previously classified as sales workers, 260 managers previously classified as service workers and 9 managers previously classified as farm workers.

Using the proportion of blacks in the managerial group prior to adjustment (0.2393), these three groups of workers were split as follows:

Managers, wholesale and retail - 154 black, 489 white.  
Managers, catering and lodging - 86 black, 274 white.  
Farm managers - 2 black, 9 white.

These modified totals were added to and subtracted from the major occupational groups as appropriate.

Using the proportion of foreign born in the managerial group prior to adjustment (0.4684), the above occupational sub-groups of workers were split as follows:

Managers, wholesale and retails - 301 foreign born and 342 Bermuda born.  
Managers, catering and lodging services - 169 foreign born and 191 Bermuda born.  
Farm managers - 4 foreign born and 5 Bermuda born

These sets of adjustments have introduced some error in the race and nativity breakdowns affected in the 1970 figures. The error is expected to have greatest impact on the estimates of percentage change for the following occupational groups: administrative and managerial, sales workers, and service workers. Except for sales workers, the impact on the distribution of these workers should be minimal.

For sales workers, the removal of managers in catering and lodging services imparted substantially on the total of foreign workers in this category.

The foregoing analysis is intended to point the way to more fruitful areas of investigation as the census results are studied in depth. Thus, the observation that women are becoming of increased importance as a component of the labour force has important implications for manpower planning as does the continued expansion of the service and catering sectors of the economy. Further, there is evidence that blacks are participating more at the decision making level in the economy, although the extent of this participation is considerably below that which their overall share of the work-force would suggest. Similar considerations apply for the Bermuda born although the proportion of the decision making positions held are substantially higher, indicating that Bermuda-born whites are more successful in acquiring these positions than are blacks. Certainly the variations noted for women, blacks, and the Bermuda born are of sufficient importance to warrant an intensive study at the earliest opportunity.

#### INTERNAL MIGRANTS

Internal migrants have been defined as Bermuda-born residents who on Census Day declared their parish of birth as other than that in which they reside. Information on internal migrants enables planners to anticipate the size and direction of internal movements of the population.

Data on internal migrants was collected for the first time in 1970. Hence 1980 provides the first opportunity to make real use of this information. No attempt will be made here to analyse this information other than to note the direction of major population movements. In order to achieve this, parishes have been grouped as Eastern (St. George's, Hamilton and Smith's), Central (Devonshire, Pembroke and Paget), and Western (Warwick, Southampton and Sandys). In so doing we have reduced the total of internal migrants substantially in both periods since shifts in adjacent parishes constitute a move only when such a shift is equivalent to moving into a different region. (See Table xxiii.)

When internal migration is viewed on a regional basis, it turns out that 12,352 out of a total of 39,880 or 31% of the Bermuda-born population were internal migrants. In 1970, internal migrants defined regionally were 26% of the population.

Although the proportion of the population classified as internal migrants rose in 1980, the direction and relative size of the movement did not change substantially. The Western parishes with 42% of the internal migrants continued to be the major gainer followed by the Central parishes. However, the percentages of internal migrants moving to the Eastern parishes increased by 3 percentage points to close on the Central parishes as a final stopping place for internal migrants.

Most internal migrants (55%) originate in the Central

parishes. In fact this proportion continues unchanged from 1970. Significantly, the Eastern parishes have been increasing their share of internal migrants at the expense of the Central and Western parishes.

These findings suggest that the Eastern parishes may be on the verge of entering into the kind of population expansion which occurred in the Western parishes over the past decade. Should further study confirm this trend, there are important implications for land use and business strategic planning.

TABLE (xxiii) - ALL INTERNAL MIGRANTS BY REGION OF BIRTH AND REGION OF RESIDENCE - 1980 AND 1970

Region of Residence	Internal Migrants by Region of Birth				Regional Totals as a Percentage of Total Internal Migrants			
	Total	Eastern Region	Central Region	Western Region	Total	Eastern Region	Central Region	Western Region
						%	%	%
1980					1980			
All Internal Migrants	12,352	2,741	6,821	2,790	100	22	55	23
Eastern Region	3,388	-	2,666	722	27	-	22	6
Central Region	3,854	1,786	-	2,068	31	14	-	17
Western Region	5,110	955	4,155	-	41	7	34	-
1970					1970			
All Internal Migrants	9,949	2,294	5,472	2,183	100	23	55	22
Eastern Region	2,343	-	1,861	482	24	-	19	5
Central Region	3,196	1,495	-	1,701	32	15	-	17
Western Region	4,410	799	3,611	-	44	8	36	-

## HOUSEHOLDS

In 1980 Bermuda's households numbered 18,449, up 2,865 or 18% from 1970. All households with from one to four persons shared in the general rise to the extent that each size household increased its share of total housing except 3-person households which retained the same share. (See Table xxiv.)

The most substantial increases occurred amongst single-person households whose share of total households advanced 6 percentage points to 25% of all households. Households larger than 4 persons experienced a substantial drop in importance from 23% of all households in 1970 to 13% in 1980.

TABLE (xxiv) - HOUSEHOLDS BY NUMBER OF PERSONS PER DWELLING - 1980 AND 1970

Persons per Dwelling	Number		Percentage Distribution		Percentage Change
	1980	1970	1980	1970	1970 to 1980
All Bermuda	18,449	15,584	100	100	18%
1 Person	4,529	2,953	25	19	53%
2 Persons	4,973	3,861	27	25	29%
3 Persons	3,387	2,741	18	18	24%
4 Persons	2,999	2,400	16	15	25%
5 Persons	1,369	1,565	7	10	-13%
6 or More Persons	1,192	2,064	6	13	-42%

Associated with the tendency for households to be small was a shift towards occupying smaller dwellings. Households living in dwellings of two rooms or less increased by over 50% over the decade. As a result, these kinds of households rose from 18% to 23% of the total. (See Table xxv.)

Households occupying dwellings with 3 or more rooms also increased in number but not at the same rate as the households living in small dwellings. Since all categories of this type of household either experienced no change in their numbers or declined over the decade, their share of the housing market declined substantially.

TABLE (xxv) - HOUSEHOLDS BY NUMBER OF ROOMS IN DWELLING - 1980 AND 1970 (Excludes Bathrooms and Kitchens)

Rooms per Dwelling	Number		Percentage Distribution		Percentage Change
	1980	1970	1980	1970	1970 to 1980
All Households	18,449	15,584	100	100	18%
Bedsitters and/ One Room Dwellings	1,401	915	8	6	53%
2 Rooms	2,787	1,890	15	12	47%
3 Rooms	4,182	3,542	23	23	18%
4 Rooms	4,430	4,057	24	26	9%
5 Rooms	2,890	2,775	16	18	4%
6 or More Rooms	2,448	2,384	13	15	3%
Rooms Not Stated	311	21	2	0	1,380%



These findings imply that the demand for small dwellings continues strong and is being met in part by the splitting up of larger dwellings.

Households owning their own dwellings rose at a rate faster than the increase in the rate of growth of all households. However, households leasing and renting furnished housing grew even more rapidly. Households renting unfurnished dwellings increased at a substantially slower rate than the rate of household formation, whereas households living rent-free were fewer in 1980. (See Table xxvi.)

The outcome of these trends was that home owners increased their share of housing stock as did households leasing or renting furnished premises. Households renting unfurnished dwellings or residing rent-free gave up 5 percentage points of their share of occupied dwellings.

TABLE (xxvi) - HOUSEHOLDS BY TYPE OF TENURE -  
1980 AND 1970

Tenure	Number		Percentage Distribution		Percentage Change
	1980	1970	1980	1970	1970 to 1980
All Households	18,449	15,584	100	100	18%
Owner Occupied	7,308	6,087	40	39	20%
Leased	481	284	3	2	69%
Rent Furnished	2,998	2,323	16	15	29%
Rent Unfurnished	6,717	6,022	36	39	12%
Rent-free	741	868	4	6	-15%
Other and Not Stated	204	0	1	0	na

Census 80 reveals that the trend towards apartment dwelling first identified in 1970 continued although 75% of all Bermuda households lived in detached houses with one apartment. Eleven percent of all households occupied apartments in buildings with three dwelling units while 13% had taken up residence in buildings with four or more units.

Between 1970 and 1980, the number of households occupying single detached houses actually declined by 352 while the number of households residing in multi-unit buildings increased. Thus in 1980 the proportion of Bermuda households living in single detached houses had fallen from 54% in 1970 to 44% in 1980.

Households residing in all other types of dwellings increased their share of the total housing stock by one to three percentage points.

TABLE (xxvii) - HOUSEHOLDS BY TYPE OF BUILDING -  
1980 AND 1970

Type of Building	Number		Percentage Distribution		Percentage Change
	1980	1970	1980	1970	1970 to 1980
All Households	18,449	15,584	100	100	18%
1 Unit	8,042	8,394	44	54	-4%
2 Units	5,960	4,612	32	30	29%
3 Units	1,942	1,197	11	8	62%
4-6 Units	1,596	896	9	6	78%
7 or more units	670	409	4	3	64%
Other Type					
Dwelling	74	75	-	-	-1%
Not Stated	165	1	1	-	-

There is evidence that the rate of construction of dwelling units was far lower than was the case for the previous decade. Since October 25, 1970 only 2,458 households reported that their dwelling units had been created over that period. In 1970, 3,292 households reported that their living quarters had been created during the previous decade. (See Table xxviii.)

Of interest here is the fact that during the more recent decade only 1,720 persons were added to the resident civilian population compared with over 10,000 between 1960 and 1970. Yet new households formed by 1980 numbered 2,865 compared with 3,068 between 1960 and 1970. This finding supports widely held views that the demand for housing was resulting from the breaking up of the traditional household as a result of youngsters setting up on their own, marriage breakups whereby the separated partners opt to live on their own, and a reduction in the number of family members--particularly parents--residing with the nuclear family.

TABLE (xxviii) - HOUSEHOLDS BY YEAR WHEN DWELLING BUILT  
1980 AND 1970

Year Dwelling Built	Number		Percentage Distribution		Percentage Change
	1980	1970	1980	1970	1970 to 1980
All Households	18,449	15,584	100	100	18%
Under 1 year	41	176	-	1	-77%
1 to 2 years	208	248	1	2	-16%
2 to 3 years	207	214	1	1	-3%
3 to 10 years	2,002	2,654	11	17	-25%
10 years or longer	15,587	12,088	84	78	29%
Not Stated	404	204	2	1	98%

It would appear that the high standard of housing recorded in 1970 was improved upon, but this cannot be asserted because the level of non-response to the question "material of outer walls" was actually higher than the number of houses which could be categorised as having been constructed of standard materials. However, the findings indicate that households residing in dwellings of wood or some combination of wood and other materials declined by 30% between 1970 and 1980. (See Table xxix.)

Of interest also is the substantial drop in households residing in dwellings built of Bermuda stone and the correspondingly marked rise in the number of dwellings constructed of cement block and a combination of stone and cement block. Since Bermuda stone has not been an important source of building material except for roofing over the past decade, it follows that the demand for housing has been met as much by additions to existing houses as by the creation of new ones.

TABLE (xxix) - HOUSEHOLDS BY MATERIAL OF OUTER WALLS

Material of Outer Walls	Number		Percentage Distribution		Percentage Change
	1980	1970	1980	1970	1970 to 1980
All Households	18,449	15,584	100	100	18%
Bermuda stone	11,932	13,060	65	84	-9%
Cement Block	3,386	1,806	18	12	87%
Bermuda stone and Cement Block	2,231	238	12	2	837%
Wood	131	232	1	1	-44%
Wood and other materials	181	214	1	1	-15%
Other and Not Stated	588	34	3	0	1,629%

Evidence that the already high standard of water supply and toilet facilities has improved is irrefutable. Between 1980 and 1970 the 802 households who reported that they obtained water by dipping from a tank or from an outdoor pump had fallen to 502 or 3% of all households. On the other hand, households who reported that they not only had water piped indoors but could make use of a supplementary supply obtained from a well, Watlington water works or sea water had increased from 7% of all households to 16%. (See Table xxx.)

TABLE (xxx) - HOUSEHOLDS BY WATER SUPPLY

Water Supply	Number		Percentage Distribution		Percentage Change
	1980	1970	1980	1970	1970 to 1980
All Households	18,449	15,584	100	100	18%
Piped Indoors With Supple- mentary Supply	2,860	1,131	16	7	153%
Piped Indoors Without Supple- mentary Supply	14,839	13,613	80	87	9%
Piped Outdoors or Dipped	502	809	3	5	-38%
Other	10	17	0	0	-41%
None	8	14	0	0	-43%
Not Stated	230	0	1	0	na

Another significant improvement in housing was the finding that households using an outhouse had declined from 662 to 271, a mere 1% of the household total. Further, the number sharing toilet facilities declined from 772 to 320 which constituted 2% of all households. (See Table xxxi.)

TABLE (xxx1) - HOUSEHOLDS BY TOILET FACILITIES  
AND DEGREE OF PRIVACY

Toilet Facilities	Number		Percentage Distribution		Percentage Change
	1980	1970	1980	1970	1970 to 1980
All Households	18,449	15,584	100	100	18%
<u>Type of Facility</u>					
Flush Toilet	17,849	14,922	97	96	20%
Pit or Other					
Means of Disposal	271	662	1	4	56%
Not Stated	329	0	2	0	na
<u>Degree of Privacy</u>					
Shared or None	320	772	2	5	56%
Not Shared	17,932	14,812	97	95	65%
Not Stated	197	0	1	0	na

Efforts by households to improve their housing standards have not been without cost. Examination of median rents and the rent level at which 10% and 5% of the population obtain living quarters, reveals that rent levels almost tripled at the three points of measurement. Thus in 1970 median rent--the rent level matched or exceeded by 50% of rent paying households--stood at \$90. By 1980 this level had increased more than 2 1/2 times to \$237. For persons occupying high cost rental units--classified as the top 5%--rents rose from \$239 in 1970 to \$686 in 1980. (See Tables xxxi and xxxii.)

TABLE (xxxii) - MEDIAN RENTS AND RENTS AT THE HIGHEST 5% and 10% FOR ALL BERMUDA HOUSEHOLDS - 1970 AND 1980

Census Date	Number of Household Reporting	Monthly Rent Paid /		
		Top 5% \$	Top 10% \$	Median \$
1980	9,746	\$686	\$484	\$237
1970	7,850	239	185	90
Percentage Change		187%	162%	163%

Rents may also be viewed in terms of the proportion of households paying rent at fixed intervals. Thus in 1970 more than half of households renting paid less than \$100 monthly. However, by 1980 this proportion had fallen to 6%. The number of households paying between \$100 and \$200 per month continues high at 30% although this proportion is lower by 4 percentage points than was the situation in 1970. Thus 93% of all household paid less than \$200 per month in 1970 compared with only 36% in 1980. (See Table xxxiii.)

While in 1970 only 7 households paying rent were charged \$300 a month or more, by 1980 this proportion had risen to 64%. Of particular interest is the fact that 10% of all households faced rents of an excess of \$500 monthly at the date of the latest census.

TABLE (xxxiii) - ONLY HOUSEHOLDS REPORTING RENTS BY AMOUNT OF MONTHLY RENT REPORT

Monthly Rent Paid	Number		Percentage Distribution		Percentage Change 1970 to 1980
	1980	1970	1980	1970	
All Households	9,746	7,850	100	100	
Under \$100	589	4,631	6	59	-87%
\$100 - \$199	2,910	2,636	30	34	10%
\$200 - \$299	3,244	381	33	5	751%
\$300 - \$499	2,094	121*	21	2	1,631%
\$500 - \$699	438	55*	5	1	696%
\$700 - \$999	224	26*	2	0	762%
\$1000 or higher	247	0	3	0	na

\* Figures obtained by interpolation.

#### Some Other Aspects of Households

The 1980 Census has provided considerable information on household types and the characteristics of heads of household. Analyses of these are best suited to a study limited to households. Three aspects of households not presented in 1980 are mentioned here:

- Occupancy Rates
- Household Types
- Headship Rates

Occupancy rates in 1980--number of persons per room--are described in Table (xxxiv), 14,856 or 82% of all Bermuda house-

holds occupy dwellings which allow at least one room for every occupant. There were 2,999 or 17% of all households in dwellings in which there are more than one and as high as two persons per room. To the extent that this group consists of large households--over half have 5 or more persons per household--these dwellings are potentially overcrowded.

The final groups of households are those with more than two persons per room which number 283 in 1980 or 2% of the total. These dwellings are overcrowded.

TABLE (xxxiv) - HOUSEHOLDS REPORTING ROOMS PER DWELLING CLASSIFIED BY PERSONS PER HOUSEHOLD AND SELECTED AVERAGES OF PERSONS PER ROOM:

Persons per Household	Total		Persons per room					
			1 or Less		Greater than 1 to 2		Greater Than 2	
	No.	%	No.	%	No.	%	No.	%
All								
Households	18,138*	100	14,856	100	2,999	100	283	100
1 person	4,417	24	4,417	30	-	-	-	-
2 persons	4,893	27	4,661	31	232	8	-	-
3 persons	3,335	18	2,928	20	348	12	59	21
4 persons	2,963	16	2,067	14	867	29	29	10
5 persons	1,353	8	620	4	678	23	55	19
6 persons	615	4	138	1	468	16	9	3
7 or more persons	562	3	25	-	406	14	131	46

\* Excludes 311 households who did not state the number of rooms in the dwelling.

Five types of household were classified for analysis. These were Nuclear--some combination of the head, spouse/partner and children of the union; Related--nuclear plus another relative other than the offspring of the head or spouse; Non-related--single person; Mixed--all others not defined above.

Nuclear households made up 58% of all households. These were followed in importance by single person households (25%) and mixed (12%).

When age is considered as a factor of analysis, Bermuda's most typical household is nuclear and the head is aged 25 to 44. These constitute 30% of all households. Next in importance are nuclear households whose heads are aged 45 to 64. These constitute 19% of the population. The only remaining group of any significance are single-person households whose heads are aged 25 to 44.

TABLE (xxxv) - PRIVATE HOUSEHOLDS BY SELECTED AGE OF HEAD AND TYPE OF HOUSEHOLD

Type of Household	Total	Selected Age of Head			
		Under 25	25 to 44	45 to 64	65 and over
All Households	18,449	970	8,542	6,072	2,865
Nuclear	10,661	373	5,569	3,522	1,197
Related	805	72	240	248	245
Non-Related	184	34	96	34	20
Single Person	4,529	453	1,889	1,164	1,023
Mixed	2,270	38	748	1,104	380

TABLE (xxxvi) - PRIVATE HOUSEHOLDS BY SELECTED AGE OF HEAD AND TYPE OF HOUSEHOLD SHOWN AS A PERCENTAGE OF TOTAL HOUSEHOLDS

Type of Household	Total	Selected Age of Head			
		Under 25	25 to 44	45 to 64	65 and over
All Households	100	5	46	33	16
Nuclear	58	2	30	19	7
Related	4	-	1	2	1
Non-Related	1	-	1	-	-
Single Person	25	3	10	6	6
Mixed	12	-	4	6	2

Households headed by women rose from 3,559 in 1970 to 5,324 in 1980 thus increasing their share of total households by 6 percentage points to 29% of all households.

The proportions of women heading households were equally divided between nuclear type households and single person households. However, almost two thirds of women heading nuclear households were under the age of 45 while for single person households the reverse was true.

TABLE (xxxvii) - PRIVATE HOUSEHOLDS HEADED BY WOMEN BY SELECTED AGE OF HEAD AND TYPE OF HOUSEHOLD

Type of Household	Total	Selected Age of Head			
		Under 25	25 to 44	45 to 64	65 and over
All Households	5,324	333	2,040	1,674	1,277
Nuclear	1,945	108	1,085	563	189
Related	436	20	72	146	198
Non-Related	76	14	34	13	15
Single Person	1,973	172	561	529	711
Mixed	894	19	288	423	164

TABLE (xxxviii) - PRIVATE HOUSEHOLDS HEADED BY FEMALES BY  
SELECTED AGE OF HEAD AND TYPE OF HOUSEHOLD  
SHOWN AS A PERCENTAGE OF ALL HOUSEHOLDS

Type of Household	Total	Selected Age of Head			
		Under 25	25 to 44	45 to 64	65 and over
All Households	100	6	38	31	24
Nuclear	37	2	20	11	4
Related	8	0	1	3	4
Non-Related	1	0	1	0	0
Single Person	37	3	11	10	13
Mixed	17	0	5	8	3

#### SUMMARY

The 1980 Census reveals that life in Bermuda has improved materially since 1970. A small and slowly growing resident population now services a tourist industry which has nearly doubled in size even though the de facto population - the entire population - found on the island on Census Day - has changed very little.

The population has aged - the median age in 1980 at 28 years was up by almost 3 years from 1970. However, this aging has not resulted from a large influx of foreign workers as in 1970 but rather from a continued fall in birth rates as evidenced by the fall in the proportion of the population under 15 from 30% to 23%.

The demographic profile of women has undergone interesting changes. The number of women of aged 15-45--child-bearing age--has risen by 17%, considerably greater than that recorded for males in the same age group.

Expectedly, the marked increase in the number of women meant an equally substantial rise in the labour force participation rate of women. However this factor only partly accounted for the increased proportion of women in the work force. Of significance also was the tendency of women of child-bearing age to have fewer children and also to forego marital union.

Perhaps an additional incentive for women to get more involved in economic activity has been the growth of service industries which traditionally employ large numbers of women. Thus the increasing importance of government as an employer, and the marked growth of financial institutions, the international community and the hotel and restaurant industry have all provided ample opportunity for women to enter the job market.

On a broader scale, the increase in the service industries and the reduction in manufacturing, construction, and other industries which use large proportions of men has meant that many men have had either to be retrained in order to obtain



suitable employment or else function at a level below their skill potential. The implications of male dissatisfaction due to this factor together with the increased competition for jobs by women at all levels needs to be explored.

The expansion in employment has seen substantial gains by blacks in all major occupational groups. However, these gains still leave their share of the high prestige, high earning occupations substantially below the proportion their share of the work-force would imply.

White and other races increased their numbers in the work-force only slightly in 1980 and this was reflected in declining shares of the jobs in virtually all major occupational categories. Nonetheless, despite a significant decrease in their share of the professional, technical and managerial occupations, they still controlled a substantially higher share of these jobs than did blacks.

Bermudianisation was well in evidence over the decade as the number of foreign-born workers actually declined. Nonetheless, foreign-born workers continue to hold the majority of the professional, technical and related occupations and a little over 40% of all administrative and managerial positions.

Certainly residents are making a serious effort to cope with the demand for skills. The 1980 results reveal that the proportion of residents who have obtained a diploma or degree has almost tripled since 1970.

Smaller families together with substantial shifts into the high-paying occupations, particularly for women, has meant more discretionary income for Bermudians. Much of this income undoubtedly has been used not only to improve skills but also housing standards.

The number of residents living in Bermuda's version of substandard housing was reduced substantially in 1980 from already low levels existing in 1970. Further, it is clear that occupancy levels have fallen in the face of ever decreasing household size.

This drive for better housing however has forced more and more residents into apartment living and has made the single detached dwelling somewhat of a luxury.

Residents have paid dearly for this improvement. Since 1970 median rents have advanced more than two and a half times the

1970 level and now stand at \$237, some \$147 over the 1970 median rent. Further, households in the top 5% of rent payers were faced with rents of \$686 or higher for accommodation.

The difficulties associated with satisfying an increased desire to live in one's own "pad" probably has accounted for the continued high rates of internal migration. Certainly, the fact that most internal migration is from the densely populated central parishes to the outer parishes supports this view.

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Census Superintendent

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