

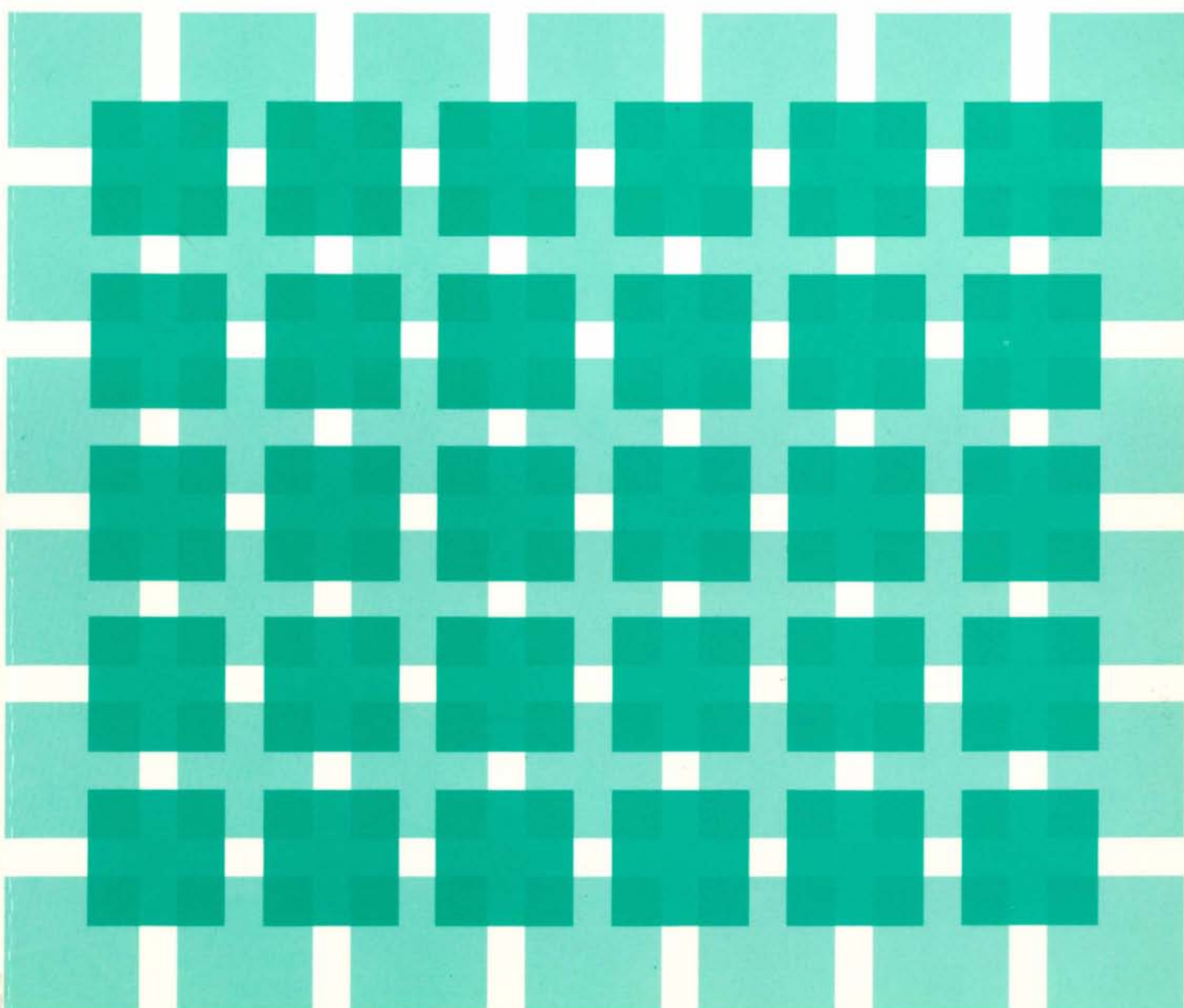
HONG KONG 1981 CENSUS

Main Report

Volume 1 : Analysis



Census and Statistics Department, Hong Kong



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Volume 1

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Foreword

The main report on the Population Census of 1981 consists of two volumes. Volume 2 contains a comprehensive set of tables covering population size, sex and age structure, fertility, mortality and migration – the demographic variables or characteristics. Detailed tables are included on education, households and housing, manpower, income distribution, internal population movements, and the locational distribution of the population – the social and economic variables or characteristics of the population. Volume 2 also includes a list of tabulations which have not been published but are available from the department.

Volume 1 is an analysis of the data in Volume 2. This analysis entailed the preparation of a large number of additional tables showing comparative figures from earlier censuses and giving the proportional or percentage changes which had taken place over time in the various demographic and social and economic variables. These tables are given in full at the end of the volume.

Volume 1 is a departure from previous census reports in that an attempt has been made to explain the causes of change over time or, where this was not possible, to give a description of the events associated with the change. There is no claim that the analyses are deep or thorough, the aim was to stimulate interest and provide some insight or understanding without becoming involved in lengthy and complicated discussion.

Statistics are for use and are not an end in themselves. They help us in understanding and appreciating what has happened in the past and the present. They enable the public and private sectors and other institutions to evaluate and monitor past programmes and policies. Planning and looking ahead to the future require good judgement, common sense, and above all knowledge of past and current trends; good statistical data, and particularly the census data provide this information. Without some estimate, or estimates, of the future population and its age structure, planning for education, health, housing, transport, manpower, and so on would be hazardous, if not impossible; looking ahead would be mere guesswork. The report has, therefore, included some illustrations of how statistical data are or can be used in planning educational and housing needs.

The purpose of the report is to present an analysis of the results of the Census in a way that also demonstrates that statistics are useful and necessary and, even stronger, that they are indispensable to an organisation, public or private, or to any individual who wishes to evaluate or monitor past performance or to plan ahead.

December 1982

C. C. Greenfield
Commissioner for Census and Statistics

PART A

DEMOGRAPHIC CHARACTERISTICS

Chapter 1

Demographic Characteristics, Trends and Projections

Summary

This is a summary review of the size, structure and growth of the population over the past decades with the main emphasis on the period 1961 to 1981. Reference is also made to the population projections for the years up to 2001. After this summary each of the main demographic variables, age and sex structure, fertility, mortality and migration will be dealt with in turn.

Census Counts and Population Growth

A census count of the number of persons present in a country or territory on a given date is referred to as a 'de-facto' count; a census count of persons usually resident in a territory on the given date is called a 'de-jure' count. The figures for both counts are set out in Table 1.1 below:

Table 1.1 De-facto and de-jure counts; 1981 Census

	<i>Present on census date (de-facto)</i>	<i>Usually resident on census date (de-jure)</i>
Resident population enumerated	4 986 560	4 986 560
Transients	13 906	—
Vietnamese refugees pending resettlement overseas	20 600	—
Residents away from Hong Kong	—	123 252
Total	5 021 066	5 109 812

Notes:

- (1) The reference date for the census was 9th March 1981.
- (2) Transients are defined as persons who had been in Hong Kong for less than 20 days, and were not usual residents.

Henceforth in this report, unless otherwise stated, the population discussed and analysed will be the figure 4 986 560, the population recorded at the census as being resident and present in Hong Kong on 9th March 1981.

Because of the large and sporadic immigrations from China the population of Hong Kong has grown rapidly but erratically. The increases in the population between the census years are given in Table 1.2 below, and it is obvious they cannot be accounted for by natural increase alone.

Table 1.2 Census counts for the years 1921–1981

<i>Year</i>	<i>Population</i>	<i>Increase</i>	<i>Average annual growth %</i>
1921	625 166	—	—
1931	840 473	215 307	3.0
1961	3 129 648	2 289 175	—*
1971	3 936 630	806 982	2.3
1976	4 402 990	466 360	2.1
1981	4 986 560	583 570	2.8

* The percentage growth rate is not shown because during the period the population changed erratically.

In the pre-war years fertility and mortality were high and net inward migration mainly accounted for the increase in the population. Immigration from China was particularly high in the years 1937–1941. A count made in connection with air-raid precautions in 1941 indicated a population of approximately 1.64 million. By 1945 this had fallen to an estimated low figure of 600 000, explained by the large-scale exodus to China. At the end of the period of occupation a massive influx of immigrants took place and by 1951 the population was estimated to have reached 2 million.

The first post-war census was held in 1961 and recorded a population of 3.1 million, and a very high annual rate of increase of 4.6% between 1951 and 1961. During this period fertility remained high, mortality low and declining, and immigration was a significant factor in the population growth.

The next ten years saw a marked fall in the rate of population growth; 2.3% growth between 1961–1971 as against the 4.6% for 1951–1961. The decade was the beginning of a substantial decline in fertility rates and a relatively low rate of migration as compared with the previous period.

In 1976 a 10% sample survey, referred to as the By-census, was undertaken and the population was estimated to be 4.4 million, a 2.1% growth since 1971; a rate of growth which was almost the same as that for the period 1966–1971. In these five years immigration remained roughly at the 1966–1971 level, but fertility showed a further decline and there was a reduction in the rate of natural increase.

The recorded de-facto count at the 1981 Census fell just short of 5 million, but if residents temporarily abroad are included the population exceeded the 5 million mark at 5.1 million. The annual rate of growth between 1976–1981 had risen to 2.8%, and this in spite of further marked falls in fertility. But whereas net immigration in 1971–1976 was only 102 000, in 1976–1981 it was as high as 400 000.

This brief review of the period 1921–1981 shows that in the pre-war period inward migration was the significant factor in population growth with natural increase playing a lesser role and a high death rate largely offsetting a high fertility rate. In the post-war period both natural increase and immigration were important factors in growth with immigration the major factor up to 1961, natural increase playing the major role to 1976 and net immigration taking over again in the last five years.

Table 1.3 Components of population growth; 1951–1981

<i>Period (Mid-year)</i>	<i>Natural Increase</i>		<i>Net Migration</i>		<i>Population Growth*</i>	
	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>
1951–1961	730 600	63.4	422 200	36.6	1 152 800	100
1961–1971	761 800	86.8	115 400	13.2	877 200	100
1971–1976	296 600	74.4	101 900	25.6	398 500	100
1976–1981	290 000	42.0	400 000	58.0	690 000	100

* Population growth here differs a little from that in Table 1.2 because census dates were not mid-year.

The rapid decline in fertility which began in the 1960's, and the influx of illegal immigrants, especially in the age group 15–34, has had a significant impact on the age structure. This will be commented on in more detail later. Table 1.4 below shows that the population was becoming older.

Table 1.4 Percentage distribution of population by age group; 1961, 1971 and 1981

<i>Age Group</i>	<i>1961 %</i>	<i>1971 %</i>	<i>1981 %</i>
Under 15	40.8	35.8	24.8
15–64	56.4	59.7	68.6
65 and over	2.8	4.5	6.6
Population (mill.)	3.130	3.937	4.987

What will the future population be? Estimates are needed because education, housing, medical facilities, transport and other public needs will depend on the size and age and sex structure of the population. Full employment or unemployment will depend on the demand and the supply of labour, and the supply will be partly determined by the numbers by sex in the age group 15–64.

Past trends in fertility and mortality rates are our best guides in estimating future rates. These trends suggest that fertility and, to a lesser extent, mortality will continue along their present downward paths. Net migration is however a difficult variable to estimate. It depends upon public policy in regard to legal immigrants and the success of the authorities in halting illegal immigration. The best guess is that net migration will be about 44 000 in the

future years. Given these assumptions on fertility, mortality and migration the population is projected to grow to 6.2 million in 1991 and 7.1 million in 2001. At present, these figures are considered to be reasonable projections and denote a 2.0% growth between 1981–1991 and a 1.3% growth between 1991–2001. However, as new data become available the projections will be revised.

This completes the summary but the sections which follow review at some length the main demographic variables such as sex and age structure, fertility, mortality and migration.

Age and Sex Distribution

The sex and age distributions of a population are, perhaps, the most basic of all demographic characteristics. They influence the rate of growth and are important determinants of manpower supply and the demand for education, health, special services for the old, household formation and the demand for housing. The distributions are also of interest because they are the result of past trends in other demographic variables such as fertility, mortality and net migration.

Hong Kong is a territory of low fertility and very low mortality – the expectation of life at birth exceeds 70 years – and, if no migration occurred its population would tend in the long run to have an age structure such that 20% of the population would be under 15 years of age, and 60% and 20% respectively would be in the age groups 15–64, and 65 and over. With fertility fixed, the effects on age structure of a fall in mortality diminish at high expectations of life. The effects of a decline in fertility over time are more complex. Studies have shown that in Western countries and Japan, a declining fertility rate had a greater effect on the age structure than a declining mortality rate and resulted in the ageing of the population. This latter statement would surely apply to Hong Kong except that the size and age structure of the territory have been substantially modified by the effect of high inward migration.

Table 1.5 Percentage distribution of population by age and sex; 1961, 1971 and 1981

Age Group	1961			1971			1981		
	Male %	Female %	Total %	Male %	Female %	Total %	Male %	Female %	Total %
Under 15	21.3	19.5	40.8	18.3	17.5	35.8	12.9	11.9	24.8
15–34	15.3	13.0	28.3	15.6	14.1	29.7	21.6	19.1	40.7
35–64	14.0	14.1	28.1	15.4	14.6	30.0	15.0	12.9	27.9
65 and over	0.8	2.0	2.8	1.5	3.0	4.5	2.7	3.9	6.6
Total	51.4	48.6	100.0	50.8	49.2	100.0	52.2	47.8	100.0

The age and sex distribution is important in many ways. For example if the population is a young one – a large proportion of the population in the age group 0 to 14 – the demand for education will be high. If the population is an old one – a high proportion over 65 years of age – more resources will be needed to provide them with a reasonable standard of living and adequate services for the elderly, especially the disabled and senile. Given same set of fertility rates, the higher the proportion of women in the age group 15–49, especially in the age group 25–34, the larger the number of births. The greater the proportion of the population in the age group 15–64 the larger the potential labour force, and so on.

In the past two decades the census data have revealed significant changes in the age structure of the population. In 1961 approximately 41% of the population were under 15 years of age, in 1971 the figure had fallen to 36% and by 1981 it was 25%. During the same period the proportion of those aged 65 and over increased from 2.8% in 1961, to 4.5% in 1971, and to 6.6% in 1981. A most interesting change relates to the age group 15 to 34; in 1961 and 1971 the group accounted for about 30% of the population, but in 1981 the figure had risen to 41%. The population in the age group 15–34 in 1961 and in 1971 were determined by the number of births in the years 1927–1946 and 1937–1956 respectively, the deaths occurring to these births, and net immigration. In the pre-war and immediate post-war periods although fertility was high so was infant mortality, and this together with the substantial migration to China during the war years resulted in a relatively low number of survived births born before 1950 and population in the age group 15–34 in 1961 and 1971. The population in the age group 15–34 in 1981 were born between 1947 and 1966. Infant mortality in this period fell rapidly, and the substantial decline in fertility only occurred late in the 1960's, there was also a rapid increase in the female population at child-bearing ages. Thus a relatively high number of births occurred resulting in a higher percentage of the population in 1981 in the age group 15–34. This percentage figure was then enhanced by the substantial influx of immigrants towards the end of the 1970's, of whom 60% were in the age bracket 15–34.

The so-called working age group of 15 to 64 is of particular interest because it is the main source of labour for industry, commerce, the services and government. In 1961, 56% of the population was in this age group, by 1971 it had risen to 60% and in 1981 to 69%. These percentages applied to the growing population produced a much larger potential labour force. More will be said about this when manpower is discussed.

Table 1.6 Dependency ratio per 1 000 of population aged 15–64; 1961, 1971 and 1981

	1961	1971	1981
Overall dependency ratio	774	675	457
Dependency ratio of under 15 only	724	599	362
Dependency ratio of 65 and over only	50	76	95

As a result of the changes in the age distribution of the population the overall dependency ratio, a much quoted rate, has declined between 1961 and 1981. This ratio is defined as the proportion of the population aged 0–14 and 65 and over divided by the population in the age group 15–64. In 1961 the ratio was 0.774, or more easily understood as 774 per 1 000; in 1971 and 1981 the figures were respectively, 675 and 457 per 1 000. This conventional measure of dependency is intended to show the economic burden of these dependent groups on the age group 15–64, the group which is the main supply of labour; the higher the ratio the greater the burden. But even as a rough measure of economic dependency it seems inadequate, and a more reasonable one would be the ratio of those economically inactive to those economically active. However this latter measure can, in turn, be criticised. If the ratio of the economically inactive to the economically active remained unchanged between two periods, but in the later period the output per man increased, or better the value added per man increased, then the burden would be less. Returning to the overall dependency figures, a further difficulty arises. Whereas the dependency ratios in 1961, 1971 and 1981 for the age group 0–14 declined from 724 to 599 to 362, the ratios for the older age group, 65 and over, increased from 50 to 76 to 95. Since the economic costs, or so-called economic burdens, of the young and the old are very different and their dependency ratios move in opposite directions, it is better to be aware of the several different ratios than have a single dependency ratio which hides the divergent trends.

The trends in the age structure show that the population is ageing. Taking the estimates of the population projections we find that the population under 15 years of age will fall from 25% in 1981 to 21% by the year 2001. In contrast the proportion aged 65 and over will increase from 7% to 10%. These figures leave the proportion in the working age group, 15–64, unchanged at approximately 69%. These percentages include the effects of the assumed annual inward migration of 44 000 until 2001.

Since the census in 1921 the sex structure has changed significantly. In 1921 there were 1 580 males per 1 000 females; this was largely the result of inward migration. This imbalance, because of the growing importance of natural increase, was reduced in 1961 to 1 056 per 1 000, and in 1971 to 1 033. The substantial immigration in the 1970's, especially towards the end of the decade, of males from China raised the figure to 1 093. The population projections suggest a slight downward movement to 1 074 per 1 000 in 2001. The figures for the years 1921 to 2001 are given in Table 1.7.

Table 1.7 Sex ratios, males per 1 000 females; 1921–2001

	1921	1931	1961	1966	1971	1976	1981	2001
Males per 1 000 females	1 580	1 348	1 056	1 029	1 033	1 046	1 093	1 074

Fertility

Fertility rates, levels and trends are discussed in some detail in this section. Rates encapsulate a comprehensive and complicated set of data into a single figure. This is useful because too much data can confuse and it is easy to get lost in detail. But the drastic summary of a whole set of information in a single rate can often mislead, and the rate needs qualifying or an improved or better rate needs to be found. In the text below several rates are quoted, each well-known, and each is scrutinised and challenged. It might well be asked, why calculate and publish a rate which it is thought might be misleading; the answer is partly that these rates are conventional and often quoted and evaluation of them in the context of Hong Kong data is useful and salutary. Furthermore these rates, if suitably qualified, can be useful in analysis.

Crude Birth Rates and General Fertility Rates

In Hong Kong the high crude birth rates up to the early 1960's were such that the territory was classified as a high fertility area: such areas according to the United Nations publications were areas with a crude rate over 30 per 1 000 or a gross reproduction rate above 2. In the 1960's fertility began to fall, and from a crude rate of 35 per 1 000 in 1961 it fell quickly to 19.7 by 1971. For a short period in the early 1970's it remained unchanged only to fall again to a level of 16.9 per 1 000 in 1981.

Table 1.8 Estimated mid-year population and birth rates; 1961–1981

<i>Year</i>	<i>Mid-year population (in 000s)</i>	<i>Crude birth rate (per 1 000 population)</i>	<i>Women aged 15 to 49 (in 000s)</i>	<i>General fertility rate (per 1 000 women aged 15 to 49)</i>
1961	3 168.1	35.0	714.9	155.1
1971	4 045.3	19.7	919.8	86.7
1976	4 443.8	17.7	1 077.1	72.9
1981	5 133.8	16.9	1 316.8	65.8

Three factors contributed to the decline in the crude rate in the 1960's and 1970's:

- (i) the decline in the age-specific fertility rates (see Table 1.11);
- (ii) the postponement of marriage (see Table 1.10);
- (iii) the change in the age structure of the female population in the age group 15–49, the child-bearing age group and the proportion of these women in the total population (see Table 1.8).

An estimate of the importance of the decline in fertility rates, postponement of marriage and age structure are shown in Table 1.9.

Table 1.9 Components associated with the decline in the crude birth rate; 1961–1981

<i>Period</i>	<i>Decline in crude birth rate %</i>	<i>Decline in fertility %</i>	<i>Postponement of marriage %</i>	<i>Change in age structure %</i>
1961–1971	–44	–23	–8	–13
1971–1981	–14	–37	–6	+29

The largest single contribution to the fall in the rate was undoubtedly the continued decline in the fertility rates at all ages of motherhood, with postponement of marriage exerting a further downward but smaller pull. Table 1.9 shows that the changing age structure from 1961 to 1971 contributed –13% to the falling birth rate, but in the decade 1971–1981, with the large proportional increase of women in the age group 15–49, it exerted an upward pull on the birth rate of +29%.

The crude birth rate relates births to the total of the male and female population. A rate which, intuitively, seems to have more relevance is the general fertility rate, GFR, which measures the ratio of births in a calendar year to the number of females aged 15–49 at the mid-point of the year. This rate is shown in Table 1.8 above as so many births per 1 000 women. If we have two populations with the same number of women in the age group 15–49 and the same age-specific fertility rates and marriage rates but a different age structure, the number of births for each population would be different, and so would their GFR's. The difference is accounted for by the difference in the age structures of these women. However, because their age-specific fertility rates are the same we would wish to say that their fertility was the same. In consequence it is better to study and use the age-specific fertility rates themselves.

Table 1.10 Percentage of women at given ages who were ever-married; 1961, 1971 and 1981

<i>Year</i>	<i>15–19</i>	<i>20–24</i>	<i>25–29</i>	<i>30–34</i>	<i>35–39</i>	<i>Mean age at marriage</i>
1961	6.4	51.4	84.5	94.0	95.0	—
1971	2.9	32.4	79.9	94.4	97.0	23.6
1981	3.4	28.7	69.7	89.0	95.5	24.4

Age-specific Fertility Rates

Age-specific fertility rates measure the ratio of the number of live-births occurring to females at a specified age, or in a specified age group, to the total mid-year or mid-period population of females of that age or in that age group. These rates for various age groups are set out in Table 1.11.

Table 1.11 Age-specific fertility rates; 1971, 1976 and 1981

<i>Age of Mother</i>	<i>Live-births per 1 000 female population</i>		
	<i>1971</i>	<i>1976</i>	<i>1981</i>
15-19	17.0	17.4	11.7
20-24	145.0	109.7	86.8
25-29	243.0	192.1	154.7
30-34	162.2	119.6	98.3
35-39	83.3	48.9	34.7
40-44	28.4	14.6	6.9
45-49	3.6	1.5	0.7

The figures bring out several interesting features. During the period 1971-1981 the age-specific fertility rate for each age group has declined sharply, and markedly so at ages 35 and over. In the age group 15-19, the rate fell by about 30% by 1981, and in the age group 20-24, by 40%. Some part explanation of this must be the postponement of marriage to a later age. For the older age group 35-49, the decline in the rates was even more remarkable, amounting over the decade to a fall of 58% for women aged 35-39, 76% for those aged 40-44, and 81% for the age group 45-49. Many factors have been responsible for these declines in fertility, but one is the attitude of women towards having smaller families which is apparent from the figures in Table 1.12.

Table 1.12 Percentage distribution of live births by birth order; 1971 and 1981

<i>Year</i>	<i>All births</i>	<i>First births</i>	<i>Second births</i>	<i>Third births</i>	<i>Fourth or</i>
					<i>higher order births</i>
1971	100	27	23	17	33
1981	100	44	33	15	8

The figures reveal that an increasing proportion of births were first and second births. By contrast the proportion of third, fourth and higher order births declined over the period. These trends are consistent with the greater availability and more effective use of contraception.

Replacement Rates

Table 1.13 Replacement rates; 1971, 1976 and 1981

	<i>1971</i>	<i>1976</i>	<i>1981</i>
TFR	3.413	2.519	1.969
GRR	1.682	1.209	0.956
NRR	1.625	1.178	0.929
GFR	86.7	72.9	65.8

The question often asked is whether the population of a country is replacing itself? Measures which purport to answer this question are the total fertility rate (TFR), the gross reproduction rate (GRR) and the net reproduction rate (NRR). Each is related to a hypothetical cohort of women who experience a given set of fertility rates of a particular year or period. In the real world no cohort of women throughout the reproductive period of their lives experiences such a fixed set of rates, the actual rates are always changing as the women move through the successive stages of their lives. With this warning let us look at these rates.

If we take a hypothetical cohort of 1 000 women aged 15 and follow them through their fertile life, which we assume ends at age 49, with no mortality, and apply to them the age-specific fertility rates of a specified year we obtain the total number of births to these women. Table 1.13 shows that if we apply to the cohort the age-specific fertility rates of the year 1971 the number of births would be 3 413; applying the rates for 1981 the figure is 1 969. Divide these figures by 1 000 and we have the mean number of births per woman, generally called the total fertility rate, TFR. The TFR using 1971 age-specific fertility rates was 3.41, and using 1981 rates 1.97. This measure is independent of the age distribution in the year 1971 or 1981.

Multiply each of the TFR figures by the number representing the ratio of the number of female births to total births and we have the mean number of female births per woman, referred to as the gross reproduction rate, GRR. If this rate is below 1, then, in the long run the cohort is not replacing itself. The GRR, however, ignores the effects of mortality on replacement. A better measure which takes account of mortality, and therefore of survival, is the net reproduction rate, NRR. Using the appropriate survival rates of 1971 and 1981 we can adjust the GRR to take account of the deaths of women in the cohort. Naturally this reduces the figure given by the GRR. Under 1971 age-specific fertility rates and survival rates the GRR was 1.68 and the NRR 1.63; using the 1981 data the respective figures were 0.96 and 0.93.

Social and Economic Factors Affecting Decline in Fertility

It is now convenient to discuss social and economic factors related to the decline in fertility. These factors include industrial development and modernisation, increased levels of income, improved and extended education, the increased economic and social costs of having a large family, improvement in the employment opportunities of women, social mobility as expressed through changing occupation and the acquisition of new and higher skills and so on. The efforts of private agencies and government in the field of family planning is also a factor.

These factors are not independent of each other; they interact and, in consequence, it is hard to measure and rank them by their importance. For example, is it increasing income which influences the need for more and better education, or is it a higher education which largely determines income? The answer is surely that each influences and is influenced by the other. Does modern industrialisation and expansion of commerce and financial services and the need for a more highly skilled labour force create the demand for improved education and training or does the improved education make possible industrial and commercial development? If modernisation and more and better education are seen to be associated with declines in fertility, which of the two is the determining factor? Again the sensible answer would be both unless there are methods and techniques available which can tell us otherwise. If there are three, four or many factors associated with the decline in fertility in Hong Kong, and they interact, then the problem of unravelling this complicated skein of factors and interactions is certainly a difficult one. Techniques do exist for attacking such problems, but if the number of social and economic variables are large, a long time series of reliable data is required. Such data are not, at present, available for Hong Kong. Even if they were, because of the strong association or correlation between the variables it is quite likely that the results of the analysis would not be statistically significant. However, even if we cannot associate changes in fertility with specific economic and social causes it is useful and of interest to provide relevant data relating fertility to education or income, etc. These data can be found in the comprehensive set of tables, under the heading fertility, at the end of this volume.

In addition, however, to the social and economic factors there are what may be called cultural and other factors to be considered. For example, attitudes of women are changing. Once most women were contented to be housewives and bear children. This, society took to be their role. Today this attitude is changing, and more and more women, especially the younger ones, wish to run their own lives and have more time for themselves. They want to work and earn their own living, have their own careers and marry later, and this is increasingly being accepted by society. Children are still important to them, but a small family will suffice and is preferred.

Mortality

Fertility has been reviewed and it is time to consider mortality, another important component of population growth.

Crude Death Rates

In Hong Kong, before World War II, the crude death rate, which is a much quoted rate, was high and fluctuated between 37 and 26 per 1 000 of the population. After the war the rate fell rapidly and by 1961 it had reached the low figure of 6.1. From 1961 to 1971 it fell slowly to 5 per 1 000, the same figure being recorded in 1981.

The post-war decline in the death rate coincided with social and economic development and especially in the 1960's and 1970's with higher per-capita incomes and standards of living. These higher standards were expressed in better nutrition and improvements in education, housing, medicine and medical facilities, sanitation and hygiene. The dilemma is why has the crude death rate remained unchanged over the past decade. The explanation is twofold. First, with a rate as low as 5 per 1 000, it is very difficult to introduce measures for preventive or curative medicine which can reduce the figure much lower. Progress in reducing mortality is largely restricted to combating diseases of infants and of the old; for the in-between age groups with mortality very low improvements are slow. Second, it is possible that over the period the crude death rate is not a suitable measure and gives misleading results. This, in fact, is the case when the age distribution between two periods being compared are substantially different. For example, assume two populations X and Y, each experiencing the same death rates at every age, but with different sex and age structures. It is easy to show that their crude death rates could differ widely. If X's crude rate is, say higher than Y's, we would be tempted to assert that Y is a healthier population than X. But this is absurd if their death rates are exactly the same at each age. Of course, the health of a population should strictly be measured not only by its mortality but also its incidence of illness, referred to as its morbidity condition. The latter, however, is extremely difficult to measure.

Standardised Rates

If crude death rates can sometimes mislead us, we need some other measures. A measure which is universally used is the standardised rate. This rate makes use of age-sex-specific death rates, such rates being calculated as follows: divide the number of deaths for each sex in each age group by the relevant male or female population in the age group. The rates for the years 1971, 1976 and 1980 are shown in Table 1.14.

Table 1.14 Age-sex-specific death rates per 1 000 population; 1971, 1976 and 1980

Age Group	1971	1976	1980	Index of Rates		
				1971	1976	1980
<i>Male</i>						
0	21.2	16.2	12.7	100	76	60
1- 4	1.0	0.8	0.6	100	79	62
5-14	0.5	0.4	0.3	100	83	67
15-29	1.1	0.9	0.7	100	79	67
30-44	3.1	2.5	1.8	100	81	59
45-64	13.5	11.7	10.6	100	87	79
65-84	59.9	55.9	47.7	100	93	80
85 and over	144.6	170.0	161.0	100	118	111
<i>Female</i>						
0	16.1	11.9	10.4	100	74	65
1- 4	0.8	0.8	0.6	100	95	73
5-14	0.3	0.3	0.2	100	88	58
15-29	0.6	0.5	0.4	100	84	61
30-44	1.7	1.5	1.1	100	90	68
45-64	6.5	6.3	5.7	100	97	88
65-84	35.3	33.9	31.6	100	96	89
85 and over	137.6	131.7	133.6	100	96	97

As stated if the crude death rate is unsatisfactory when age patterns are changing, a better rate is needed. If the age-specific death rates at one period or year are, for every age, lower than those at another period, then without hesitation we would assert its mortality is lower. But if the rates at some ages are higher and at others lower then it is not clear what to assert. A standardised rate tries to meet this situation by applying different age-sex-specific death rates to a specified population of given sex and age distribution. As an illustration take the population and age structure of the population in 1980 and apply to this population first the sex and age-specific mortality rates of the year 1971 and then those of 1980. The calculation produces two figures of total deaths, the one based on 1971 mortality rates, the other based on 1980, and each of these figures can be expressed as deaths per 1 000 of the population. Table 1.15 below gives these figures, and also alternative calculations using the population and age structure for the year 1971.

Table 1.15 Estimated mid-year population and death rates; 1971, 1976 and 1980

Year	Mid-year population (in 000s)	Crude death rate (per 1 000 population)		Standardised death rate (per 1 000 population)			
		Rate	Index	(A)		(B)	
				Rate	Index	Rate	Index
1971	4 045.3	5.0	100	5.0	100	6.3	100
1976	4 443.8	5.1	102	4.5	90	5.7	90
1980	4 999.8	5.0	100	3.9	78	5.0	79

(A) Using the age-sex distribution of 1971 as the standard population.

(B) Using the age-sex distribution of 1980 as the standard population.

Immediately it will be noticed that the standardised rates (A) and (B) in Table 1.15 are not the same, but this does not matter. We are trying to measure, in some way, the change in mortality over the period and we see in this case that both standardised rates show a fall of about 20% between 1971 and 1980, whereas the crude rate shows no change. We can state now with some confidence that there has been a decline in mortality over the period.

Table 1.16 Percentage distribution of deaths by cause of death; 1971, 1976 and 1980

<i>Cause of Death</i>	1971	1976	1980	<i>Increase (+)/ Decrease (-)</i>
	%	%	%	1971-1980 %
Infectious and parasitic diseases	7.1	3.3	3.2	-3.9
Neoplasms	20.8	23.7	25.7	+4.9
Diseases of the circulatory system	24.9	29.0	29.6	+4.7
Diseases of the respiratory system	16.4	14.5	15.6	-0.8
Diseases of the digestive system	5.0	5.0	4.5	-0.5
Diseases of the genitourinary system	2.2	2.2	3.9	+1.7
Congenital anomalies and certain conditions originating in the perinatal period	4.4	3.9	3.1	-1.3
Symptoms, signs and ill-defined conditions	10.2	8.8	5.8	-4.4
(a) unknown	3.9*	2.1	1.5	-2.4
(b) known	6.2	6.7	4.3	-1.9
Injuries and poisonings	6.8	6.6	6.2	-0.6
Other diseases	2.2	3.0	2.4	+0.2
Total	100.0	100.0	100.0	

Note: *The figures opposite (a) and (b) under 'symptoms, signs, etc.', relate to 1972.

Attention needs to be drawn to the cause of death 'symptoms, signs and ill-defined conditions'. This cause was scrutinised and sub-divided into (i) known causes and (ii) unknown causes. The reason for doing this was important. A recorded increase or decrease in the number of deaths from a particular cause can be a genuine change, or the result of better diagnosis of diseases or better reporting. In 1972, 10.1% of deaths fell under the cause 'symptoms, signs, etc.' whereas in 1980 the figure was only 5.8%. If these percentage figures had related entirely to the sub-group (ii) unknown causes, then it followed that there had been a substantial reduction in the number of deaths under unknown causes and a re-allocation of these deaths to other causes because of better diagnosis and reporting. Fortunately analysis revealed that in 1972 and 1980 respectively the percentages for unknown causes were only 3.9% and 1.5%. These figures still mean that the changes over time in the figures for all the known causes of death are not strictly correct, but the errors are relatively small and it is believed, they would not affect the statements in the paragraphs below dealing with future mortality.

The figures in Table 1.16 relate to all ages and hide the differences in the causes of death for the various age groups. A more detailed analysis by sex and age group reveals some interesting changes in mortality over the period 1971 and 1980:

- (a) the two major causes of death of infants, under 1 year of age, were 'congenital anomalies and certain conditions originating in the perinatal period' and 'diseases of the respiratory system'. The death rate for each of these causes per 1 000 of population in this age group fell markedly over the period, and especially so for male infants;
- (b) the death rates for the age group 1-44 were low, with a slight decline in the rates for all causes over the period;
- (c) 'neoplasms' and 'diseases of the circulatory system' were the main causes of deaths for those aged 45 to 54. For males, the number of deaths increased, but with the larger population in this age group in 1980, the death rates fell, but only slightly. For females the number of deaths from these causes was almost the same in 1980 as in 1971, but the decline in the death rates was more marked than for males;
- (d) 'neoplasms and diseases of the circulatory system' were also the main causes of death for the age group 55-64. For males the death rate for 'neoplasms' had increased but that for 'diseases of the circulatory system' had decreased rather substantially. For females the death rates for each cause remained unchanged;
- (e) 'diseases of the circulatory system' were the main cause of death in the age group 65-79. The number of deaths rose but the death rate fell; again the result of the large increase in population in this age group. 'Neoplasms' and 'diseases of the respiratory system' were equally the next main causes of death;
- (f) 'diseases of the circulatory and respiratory systems' were the main causes of death for those aged 80 and over.

Again a warning must be added in regard to drawing conclusion from figures on causes of death. Diagnosing the cause of death is not simple. It is often difficult when a person is suffering from several diseases or shows several symptoms to decide which was the actual cause of death. Errors can arise in diagnosis and also in recording deaths and these errors affect the interpretation of the data.

Expectation of Life at Birth

Table 1.17 shows the expectation of life at birth for the years 1971, 1976 and 1978. This expectation is defined as the average lifetime of a hypothetical cohort of births all assumed to be born in a given year, and thereafter subjected to the same mortality rates prevailing in that year. This summary index is useful for describing the mortality conditions of the population over time, and for comparison with those of other populations.

Between 1971 and 1980 the expectation of life at birth increased by 4.3 years from 67.4 to 71.7 for males, and by 2.5 years, from 75.0 to 77.5 for females. As a result of these changes, the difference in the corresponding expectations between males and females fell from 7.6 years in 1971 to 5.8 years in 1980. Hong Kong's level of mortality, as summarised by the expectation of life at birth, is already very low. Further improvement in the future, which is plausible in the light of the existing socio-economic conditions in Hong Kong and advances in medical technology, will nevertheless be slow.

Table 1.17 shows that the expectation of life of males and females in Hong Kong compares favourably with those in the highly developed countries.

Table 1.17 International trends of expectations of life at birth by sex; 1971, 1976 and 1978

	1971		1976		1978	
	Male	Female	Male	Female	Male	Female
Hong Kong	67.4	75.0	69.7	76.5	70.6	76.7
Sweden	72.0	77.6	72.2	78.1	72.5	78.9
England and Wales	69.2	75.5	69.7	75.8	70.1	76.3
U.S.A.	67.4	75.0	69.1	76.9	69.5	77.2
Japan	70.4	75.8	72.3	77.6	73.2	78.6

Note: 1980 figures were available only for Hong Kong; these were males 71.7 and females 77.5.

Net Migration

The previous sections have made repeated references to migration as a demographic variable. Furthermore, because of its important demographic and social and economic implications a special chapter has been devoted to it. This section, in consequence, is brief and is included so that this chapter on fertility, mortality and migration can be self-contained. This does, however, entail some repetition of what has been stated elsewhere in this report.

Net migration was the dominant factor in the rapid growth of the population before World War II. In the post-war years net inward migration has been considerable, but, except for the period 1978–1981, the increase in the size of the population has been mainly the result of natural increase and to a lesser degree migration.

Hong Kong gained approximately 400 000 persons through net migration during the 1950's; some 120 000 during the 1960's, and another 500 000 in the 1970's. Nearly 400 000 Chinese immigrants, legal and illegal, entered between 1978 and 1981. Clearly an influx of immigrants of this size over the past 30 years has had a marked structural impact on the size and sex and age distribution of the population, and also on its social and economic development.

The impact on the size of the population is shown in the following table. Note that migration in this table includes the offspring born in Hong Kong of female immigrants.

Table 1.18 Comparison of actual population with hypothetical population; 1951–1981

Mid-year	Actual population (with migration)	Hypothetical population (without migration)	Cumulative effect of migration 1951–1981 (including offspring of migrants)
1951	2 015 300	—	—
1961	3 168 100	2 647 000	521 100
1971	4 045 300	3 286 500	758 800
1976	4 443 800	3 526 700	917 100
1981	5 133 800	3 748 700	1 385 100

Table 1.18 reveals that the population between 1951 and 1981 increased by 3.12 million of which 1.39 million can be accounted for by net inward migration during the period and the offspring born in Hong Kong of the female immigrants. It follows that natural increase on this definition accounted for 1.73 million of the population growth.

An analysis of the age and sex structure of both legal and illegal immigrants who entered the territory between 1976 and 1981 showed that the legal immigrants had an age-sex structure only slightly different from that of the non-immigrant or local population, whereas that of the illegal immigrants was vastly different. In this five year period, moreover, the numbers of legal and illegal immigrants were very similar. Thus if future inward migration continued at the high level of 1976–1981, the impact on the age and sex structure would seem to depend on whether the immigrants were mainly legal or mainly illegal.

Population Projections

Assumptions about future trends in fertility, mortality and migration are required if the demographer is to make any statement about the size and age and sex structure of the population in ten or twenty years time. Mortality for some time has been declining slowly and has reached a low level, with little room for improvement except in the case of infants and the old. The error in estimating future rates is, in consequence, fairly small. Fertility trends are also downwards, but fertility rates can be more erratic, and past estimates of births in many countries in the past have been wide of the mark. Migration into Hong Kong is partly determined by government policy and by illegal immigration. Estimation of migration is difficult and largely guesswork.

A study of past trends, judgement, and common sense are needed if population projections are to command respect and the confidence of the users. Population projections must be distinguished from population predictions. The latter purports to say what the population will be at some specified date, whereas a population projection is only an 'if ... then ...' statement. For example we could say, if the age-specific fertility and mortality rates and number of immigrants for the year 1981 were to remain unchanged in the future, and if we applied them to the initial population of 1981, then the size and age-sex structure of the population in 1991 and 2001 would be so and so. These, in fact, are not good assumptions since past trends suggest declines in future mortality and fertility, and we may have different views about the likely number of immigrants. A calculation using a different set of assumptions will produce a different population projection. It seems more sensible to see the outcome of different sets of assumptions rather than be dogmatic about one set. If the different assumptions lead to projections which are reasonably similar in size and structure then so much the better.

Future Fertility

The assumptions about future fertility are fairly straightforward. A study of past data and trends showed that by 1981 the age-specific birth rates for women in the age groups 15–19 and 35–39 were low but nevertheless declining. For these age groups past trends were extrapolated by fitting a smooth curve. A slightly more sophisticated approach was taken in regard to births to women in the age groups 20–24, 25–29 and 30–34. Age-specific birth rates by birth order were examined for the period 1971–1981, and different types of curves were fitted to the rates until a best fit, using the method of least squares, was found. Great emphasis was placed on the trend for first and second births for women aged 20–29, and also 30–34, and to third order births for those aged 25–34. Checks were applied to the estimated future or projected rates, as for example, how they were compared with the recent rates and trends in other low fertility countries, with modifications if the estimated trends seemed out of line.

Since the 1981 Census fertility data for female immigrants from China for the period 1976–1981 showed fertility rates appreciably higher than those for non-immigrants this fact was recognised. The detailed data on the fertility of immigrants from the vital statistics records are only available since 1980 and in the absence of any thorough understanding of the possible changes in fertility patterns through assimilation with the non-immigrant population the preparation of a separate set of assumptions for immigrant women was not attempted. However, the fact that immigrant fertility was higher than non-immigrant fertility was taken into account in that total fertility rate, TFR, was assumed to decline only from 1.97 in 1981 to 1.73 in 2001.

Future Mortality

To construct the population projections estimates of mortality are required for the period up to the year 2001. For ages 1 to 44, little improvement in mortality is expected, and a simple extrapolation of past trends was carried out. For ages 0 and 45 and over, where death rates are highest, but not high, the data on the causes of death for each sex and age group were examined carefully and several different curves were fitted to the trends over the past decade to see which curve gave the best fit. The death rates for neoplasms and the circulatory and respiratory systems were given special attention since these diseases contribute substantially to the total number of deaths. Judgement about possible future change in mortality was also used and the experience in other low mortality countries was taken into account. For example, Sweden is a very low mortality country and it was assumed that their rates for 1978 would be a reasonable limit to Hong Kong's projected mortality rates.

The mortality rates when projected on the lines stated above showed slight declines for the ages 0 to 4, little or no change for ages 5 to 34, and thereafter slight falls for the remaining ages, and especially the older ages. The projection gave an expectation of life for males in 2001 as 72.4 and for females 78.2. The gap between these expectations is near to that for 1981.

Future Migration

An annual net inward migration of 44 000 per year was used in the calculations in Table 1.19. No migration was assumed in the case of Table 1.20.

Projections

The population projections for the years 1986 to 2001 are as follows. The differences between the figures in the two tables show the effects of migration.

Table 1.19 Distribution of projected population* by age; 1986–2001

Age Group	1986		1991		1996		2001	
	No.	%	No.	%	No.	%	No.	%
0–14	1 343 000	23.6	1 455 500	23.3	1 516 200	22.6	1 461 700	20.6
15–24	1 019 300	17.9	891 200	14.3	899 100	13.4	985 400	13.9
25–34	1 161 000	20.4	1 264 500	20.3	1 119 600	16.7	992 500	14.0
35–44	712 700	12.5	1 016 000	16.3	1 256 200	18.7	1 358 300	19.1
45–54	539 400	9.5	553 500	8.9	756 500	11.3	1 050 600	14.8
55–64	470 500	8.3	515 000	8.2	521 900	7.7	535 800	7.5
65 and over	441 700	7.8	539 500	8.7	642 900	9.6	722 400	10.1
Total	5 687 600	100.0	6 235 200	100.0	6 712 400	100.0	7 106 700	100.0

Note: These projections assume a net inward migration of 44 000 per year.

* Mid-year population.

Source: 1981 Census-based Population Projections.

Table 1.20 Distribution of projected population* by age; 1986–2001

Age Group	1986		1991		1996		2001	
	No.	%	No.	%	No.	%	No.	%
0–14	1 287 200	23.6	1 347 600	23.4	1 366 900	22.8	1 276 800	20.8
15–24	1 010 100	18.5	856 400	14.9	823 600	13.8	875 600	14.3
25–34	1 095 300	20.1	1 159 800	20.1	1 005 900	16.8	853 300	13.9
35–44	659 700	12.1	903 800	15.7	1 079 200	18.0	1 142 700	18.6
45–54	513 400	9.4	487 200	8.5	638 800	10.7	875 500	14.3
55–64	459 400	8.4	489 000	8.5	471 900	7.9	448 300	7.3
65 and over	429 100	7.9	512 400	8.9	599 500	10.0	659 200	10.8
Total	5 454 200	100.0	5 756 200	100.0	5 985 800	100.0	6 131 400	100.0

Note: These projections assume no inward or outward migration.

* Mid-year population (without immigrant).

Source: 1981 Census-based Population Projections.

PART B
SOCIAL AND ECONOMIC
CHARACTERISTICS

Chapter 2

Labour Force Characteristics and Forecast

Introduction

All the post-war censuses in Hong Kong adopt the labour force approach for studying the economic activity of the population. This approach considers the economically active population, usually referred to as the labour force, as an identifiable category which can be distinguished from the economically inactive population by the fact that they are available for work, that is, those who are working, or who are trying to find work. The labour force concept relates to a person's current activity during a specified brief time period and includes all who work for wages or salaries, the self-employed and employers, and unpaid workers in social or religious organisations or family enterprises. It also includes the unemployed, which comprises workers who were out of work but seeking work, first-time job-seekers with as yet no occupation, workers not working at the reference time but who in fact had a job to go back to, and persons who were not actively seeking work because of temporary sickness or because suitable jobs were not available.

The reference period adopted for measuring the labour force varied between censuses – it was 20 days preceding the census date in the 1961 Census and seven days before the day of enumeration in the 1971, 1976 and 1981 censuses. For the purpose of classifying persons as 'employed', a 'minimum time worked' criterion was used; this was 40 hours in the 20-day reference period in 1961 and 15 hours in the 7-day reference period in 1971, 1976 and 1981. The 15 hours criterion, however, did not apply in 1976 and 1981 to the self-employed, farmers and fisherfolk, and persons on leave; in 1976 to outworkers, and unpaid workers, and in 1981 to employers and persons on industrial dispute.

A minimum age limit has been adopted for defining the economically active population; below this age limit all persons are classified as economically inactive. This was 6 in 1961, 10 in 1971, 14 in 1976, and 15 in 1981. The increase in the minimum age limit was in the light of the legal age for employment. In this chapter, where possible, the age of 15 is used as the minimum age limit for comparison between censuses.

The larger the ratio of the labour force to the population the greater the potential output of goods and services. This simple ratio is therefore a useful one but it is not entirely satisfactory as a quantitative measure of either the potential or actual manpower resources of the economy. A better measure should take into consideration hours of work, unemployment and under-employment, and the quality of labour as expressed in its skills and experience, but such a measure is difficult to calculate.

Information on hours of work, unemployment and occupational skills and educational attainment are available from the census and published in this report, but data on under-employment is difficult to obtain. In the censuses of 1971 and 1976 a person in the labour force was defined as inadequately utilised if he or she could be classified under one of the following categories; unemployed, working less than full-time hours and wants more work, low income as a proxy for low productivity, and working at an occupation below the level for which they had been educated, i.e. mismatch. Allocation of a person to the category of low productivity and low income was arbitrary and the concept of mismatch is debatable and dubious. In consequence the term under-utilisation has been abandoned and the tables at the end of this report give data on the above categories with the exception of the category on low income.

Growth of the Labour Force

Table 2.1 shows the changes in the size of Hong Kong's labour force as compared with the overall growth of the population. The increase in the labour force from 1.2 million in 1961 to 1.6 million in 1971 and 2.5 million in 1981 cannot be explained by the increase in population size alone. Indeed, the average annual growth rate of the labour force far exceeded that of the population, although the difference is not so marked if only the population aged 15 and over are considered.

Table 2.1 Distribution of population by broad activity status (million); 1961, 1971 and 1981

<i>Number</i>	<i>1961</i>	<i>1971</i>	<i>1981</i>
Total population	3.130	3.937	4.987
Persons aged 15 and over	1.853	2.529	3.749
Economically active aged 15 and over	1.188	1.619	2.504
Economically inactive aged 15 and over	0.665	0.910	1.245
Ratio of economically active to total population	37.9%	41.1%	50.2%
Ratio of economically active to total population aged 15 and over	64.1%	64.0%	66.8%
<i>Average Annual Growth Rate</i>	<i>1961–1971</i>	<i>1971–1981</i>	
	%	%	
Total population	2.3	2.4	
Persons aged 15 and over	3.2	4.0	
Economically active aged 15 and over	3.1	4.5	
Economically inactive aged 15 and over	3.2	3.2	

Two factors which determine the size of the labour force are:

- (a) demographic factors, principally the size and age-sex structure of the population in the working age group 15–64; and
- (b) the propensity of the population to enter the labour force, and measured by the labour force participation rates – the labour force participation rate for a specified age group is defined as the proportion of the labour force in the age group to the total population in the age group.

Each of these factors is discussed in the following paragraphs.

Demographic Factors

To assess the effect of the size and age distribution of the population on the manpower supply we can compare the actual number in the labour force, say in 1981, with a hypothetical figure by applying the 1981 age-specific participation rates to the 1971 population which is different from the 1981 population in size and age distribution. The difference or the ratio between the actual and hypothetical figure reflects the change in the size of the labour force which arises from both the differences in the size of the population aged 15 and over, and the percentage distribution by age within this age group. Similar comparisons can be made taking the actual figures for 1971 and comparing it with the hypothetical figures using 1971 participation rates and the 1961 demographic data. There are, of course, other comparisons using different combinations of participation rates and demographic data; these were calculated and gave percentage figures similar to those in the Table 2.2 below.

Table 2.2 Growth of economically active population attributable to demographic factors; 1971 and 1981

	<i>1971</i>	<i>1981</i>
Total population	3 936 630	4 986 560
Labour force	1 618 982	2 503 804
Total population ten years ago	3 129 648	3 936 630
Hypothetical size of labour force (see paragraph above)	1 225 700	1 669 100
Actual increase in labour force	431 424	884 822
Hypothetical increase in labour force due to demographic factors	393 282	834 704
Percentage of actual increase attributable to demographic factors	91.2%	94.3%

The effect of demographic changes and participation rates on the labour force can be summarised as follows:

- (i) marked increases occurred in the size of the population in the age group 15 to 64 between 1961–1971 and 1971–1981 and these together with the changing age distribution were largely responsible for the rapid growth in the labour force over the two periods. The proportion of the increase in the labour force attributable to these demographic factors was, as shown in Table 2.2, over 90%;
- (ii) the age distribution of the labour force moved from the older age groups to the age group 20 to 34, with the average age declining from 36.5 years in 1971 to 35.6 in 1981. This change is somewhat paradoxical in that the population as a whole became older with the mean age rising from 27.4 to 30.3 years. In 1981 the average age of the labour force was lower because of a larger proportion of population in the 20–34 age group due to high fertility in the 1950's and a smaller proportion in the older age group 35–54 due to the meagre size of the war time generations;
- (iii) the participation rates for men fell a little, but, as will be seen, the rates for women rose appreciably.

The changes due to (i) and (ii) above are clearly illustrated in Table 2.3.

Table 2.3 Percentage distribution of labour force by age group; 1961, 1971 and 1981

Age Group	1961	1971	1981	1961	1971	1981
	(million)	(million)	(million)	%	%	%
15-19	0.08	0.23	0.25	7.1	14.1	9.9
20-34	0.50	0.56	1.20	42.0	34.7	47.8
35-54	0.51	0.64	0.76	42.9	39.3	30.4
55 and over	0.10	0.19	0.30	8.0	11.9	11.9
Labour Force	1.19	1.62	2.50	100.0	100.0	100.0

Note: Figures may not add up to the total because of rounding.

In all age groups the absolute numbers in the labour force increased over time, the most spectacular increase occurring between 1971 and 1981 when the labour force of 560 000 in age group 20 to 34 rose to 1 200 000 in 1981; nearly 50% of the labour force in 1981 fell into this age group. Also worth noting is the small increase in the numbers between 1971 and 1981 in the youngest age group 15 to 19.

Labour Force Participation Rates

The crude labour force participation rate is defined as the number of persons in the labour force as a ratio or percentage of the total population aged 15 and over. The figures for 1961, 1971 and 1981 are given in Table 2.4.

Table 2.4 Crude labour force participation rates (LFPR) of population aged 15 and over; 1961, 1971 and 1981

Year	Crude LFPR	
	Male %	Female %
1961	90.4	36.8
1971	84.7	42.8
1981	82.5	49.5

These crude rates are the result of the interaction of a large number of factors such as employment opportunities, remuneration offered, social and physical mobility of labour, marital status, motherhood and so on, and above all by the sex and age distribution of the population. The causal relationship between these factors and the crude rate are difficult to measure and an attempt at measurement would require very sophisticated techniques. Such an attempt is not made in this report; however, a simple calculation suggested that for males the changes in the crude labour force participation rates over the periods 1961-1971 and 1971-1981 were almost entirely due to changes in the demographic factors whereas for females the changes were mainly attributable to the increases in the age-specific participation rates. The age-sex-specific participation rates are shown in Table 2.5.

Table 2.5 Age-sex-specific labour force participation rates; 1961, 1971 and 1981

Age Group	Male			Female		
	1961 %	1971 %	1981 %	1961 %	1971 %	1981 %
15-19	54.3	50.4	45.2	47.9	56.4	42.6
20-24	89.2	90.2	90.9	51.1	69.5	79.7
25-34	97.8	98.4	98.3	33.9	39.6	56.8
35-44	98.3	98.6	98.6	38.0	38.7	53.4
45-54	96.9	96.6	96.0	42.1	38.9	46.7
55 and over	73.6	70.1	60.3	20.7	24.1	24.9

Over the past two decades, the major changes in male labour force participation rates have been the continuous declines for the age groups 15-19 and 55 and over. The former decline has been the outcome of improvements in educational opportunities. With more secondary school places and post-secondary institutions available, the school attendance ratio for young persons has increased markedly over the past two decades. More people now attain a higher educational level and enter into employment after a longer period of schooling. The decline in the level of participation for persons aged 55 and over is harder to explain but is possibly due to higher incomes enabling workers to retire earlier. The past two decades also saw a substantial increase in the labour force participation rates of females in all ages except the youngest age group 15-19. The increases were due to a number of factors, such as the changing attitude of society towards women working outside the home; delay in marriage and decline in the number of children; growing tendency for married women to rejoin the labour force at later ages; rise in income as well as the skill available to women; and increase in the employment opportunities of women as a result of economic development.

Looking at the future, past and present trends suggest that labour force participation rates will decline further for both males and females in the age group 15–19. Between the ages 25 to 64, little change in the participation rates for males is expected, but female rates as reflected in the explanations in the previous paragraph seem likely to increase, with the most significant changes occurring in the 45–64 age bracket. The level of participation is expected to decline for both sexes at the ages of 65 and above. These rates are given in Table 2.6.

Table 2.6 Projected age-sex-specific labour force participation rates; 1981–1991

<i>Age Group</i>	<i>Male</i>			<i>Female</i>		
	<i>1981</i> %	<i>1986</i> %	<i>1991</i> %	<i>1981</i> %	<i>1986</i> %	<i>1991</i> %
15–19	45.2	42.6	39.9	42.6	40.0	37.5
20–24	90.9	91.1	91.3	79.7	80.6	81.4
25–34	98.3	98.2	98.2	56.8	57.0	57.3
35–44	98.6	98.6	98.6	53.4	53.5	53.6
45–54	96.0	96.0	96.0	46.7	50.1	53.4
55–64	76.8	76.8	76.8	34.8	37.4	39.9
65 and over	35.5	33.7	31.8	15.0	14.9	14.7

Labour Force Projection

The labour force for 1981 and the projected figures for 1986 and 1991 are given below.

Table 2.7 Projection of labour force; 1981–1991

<i>Number</i>	<i>1981</i> <i>(Mid-year)</i> <i>estimate</i> <i>(million)</i>	<i>1986</i> <i>(million)</i>	<i>1991</i> <i>(million)</i>
	Total population	5.13	5.69
Persons aged 15 and over	3.87	4.34	4.78
Labour force aged 15 and over	2.59	2.93	3.20
<i>Average Annual Growth Rate</i>	<i>1981–1986</i> %		<i>1986–1991</i> %
Total population	2.1		1.9
Persons aged 15 and over	2.4		1.9
Labour force aged 15 and over	2.5		1.8

With a population of 5.1 million in 1981 projected to reach 5.7 million in 1986 and 6.2 million in 1991, the potential labour force in the age group 15 and over will also increase. If we apply the projected labour force participation rates to the potential population for these years the labour force increases from 2.6 million in 1981 to 2.9 million and 3.2 million respectively in 1986 and 1991. If unemployment remains at the present 4% level an additional 332 000 jobs have to be found by 1986 and another 258 000 between 1986 and 1991.

The figures quoted above are based on population projections which include net inward migration. If no net migration had been assumed the labour force projections for 1986 and 1991 would have been 2.8 million and 2.9 million respectively. Immigration has thus contributed 128 000 of the estimated increase of 346 000 between 1981 and 1986 and 260 000 of the increase of 615 000 between 1981 and 1991.

Table 2.8 Effect of immigrants on the projected growth of the labour force; 1981–1991

	<i>1981</i> <i>(Mid-year)</i> <i>estimate</i> <i>(million)</i>	<i>1986 (Mid-year)</i>		<i>1991 (Mid-year)</i>	
		<i>Including</i> <i>immigrants</i> <i>(million)</i>	<i>Excluding</i> <i>immigrants</i> <i>(million)</i>	<i>Including</i> <i>immigrants</i> <i>(million)</i>	<i>Excluding</i> <i>immigrants</i> <i>(million)</i>
Total population	5.13	5.69	5.45	6.24	5.76
Persons aged 15 and over	3.87	4.34	4.17	4.78	4.41
Labour force					
Male	1.68	1.90	1.81	2.08	1.90
Female	0.91	1.03	0.99	1.12	1.04
Total	2.59	2.93	2.80	3.20	2.94

As the population in the next decade becomes older, future changes in the age structure should produce a more experienced work force, and assuming no large decrease occurs in the labour force participation rates at the higher ages, the proportion of the labour force aged 35 and over in the population will rise. At the assumed levels of labour participation the projected work force in this age group will be 46% in 1986 and 51% in 1991; in 1981 the rate was 42%. The estimated mean age of the labour force is expected to rise from 36 in 1981 to 38 in 1991 (whilst the median age would rise from 32 to 36).

Structure of the Labour Force

Three principal classifications of the economic characteristics of the labour force are currently used in the census:

- (a) activity status, referring to whether the person was self-employed, employer, employee, unpaid worker or unemployed;
- (b) industry, referring to the kinds of goods or services produced by the establishment in which the individual worked during the reference period; and
- (c) occupation, referring to the type of work he did.

The census figures reveal divergent movements in the underlying industrial structure. In the past 20 years there has been a marked decline in the proportion of self-employed and unpaid workers in the labour force. This suggests a decline in the role of the small business especially the small businesses in the traditional sector in the form of individual and family units. In the period 1961–1971 the diminution of the importance of the small firm seemed to be confirmed by the fall in the proportion of employers in the labour force. However, in the period 1971–1981, and particularly in the years after 1976, there was a marked growth in the proportion of small establishments, principally in manufacturing, in response to the favourable business conditions and their adaptability and ability to take advantage of changing market opportunities. Over the period 1961–1981 there was a continuous increase in the proportion of employees. Unemployment which was below 2% in 1961 rose to 4.5% in 1971 but fell in 1981 to 4%.

Table 2.9 Percentage distribution of labour force aged 15 and over by activity status; 1961, 1971 and 1981

<i>Activity Status</i>	<i>1961</i> %	<i>1971</i> %	<i>1981</i> %
Self-employed	10.4	8.0	5.9
Employers	4.8	2.5	3.6
Employees	79.1	82.8	85.0
Unpaid workers	3.9	2.2	1.5
Unemployed	1.8	4.5	4.0

Industrial development in Hong Kong started in the 1950s. The traditional role of Hong Kong as an entreport was drastically affected at the outbreak of the Korean War in 1951 when an embargo was imposed on the export of strategic goods to China. It was in this period that manufacturing industry began to develop. The entrepreneurs, who came from China and settled into Hong Kong, brought with them the technical know-how, a knowledge of export markets, and much needed capital. Hong Kong started to establish itself as a manufacturing centre of some importance, with its textile industry and plastic industry becoming widely known. By 1961, there were 512 000 workers in manufacturing, accounting for 43% of the total working population.

Table 2.10 Percentage distribution of working population by industry; 1961, 1971 and 1981

<i>Industry</i>	<i>1961</i> %	<i>1971</i> %	<i>1981</i> %
Agriculture and fishing	7.3	3.9	2.0
Manufacturing	43.0	47.0	41.2
Construction	4.9	5.4	7.7
Wholesale and retail trade, restaurants and hotels	14.4	16.2	19.2
Transport, storage and communication	7.3	7.4	7.5
Financing, insurance, real estate and business services	1.6	2.7	4.8
Services	18.3	15.0	15.6

Throughout the past two decades, the manufacturing industry has continued to employ the largest share of workers. It grew rapidly in the 20 years after 1960, both in terms of its employment and its contribution to the gross domestic output. There was also a dramatic change in the quality of products. The industries in the early 1960s catered for the lower end of the market, but by the 1970s there was a wide range of products. Employment in manufacturing climbed to 728 000 in 1971 and then to 990 000 in 1981. Because of the improvement in productivity through the introduction of more and better machinery and increasing labour skills, the value of output rose faster than the numbers employed.

Much of the manufacturing industry in Hong Kong was dominated by light industries since these industries are well suited to local conditions. They do not require much land, and can be accommodated in multi-storeyed factory buildings. Light industries are generally not capital intensive. Establishments with a small number of employees can be set up quickly and are flexible and adaptable to changing conditions. In 1981 three major industries together accounted for almost 60% of employment in manufacturing. These industries were the textile and clothing industry, with about 40% of the manufacturing work force; the electronic industry and the plastic industry, each with about 10%. Within each of these industries, there is a large diversity of products.

A notable development in the 1970s was the emergence of Hong Kong as a financial centre. The extension of internationally oriented financial services to the Asian-Pacific region, the marked increase in the number of foreign banks in Hong Kong and the favourable infrastructure for the industry were some of the factors that contributed to a growth of employment in finance and business services from 2.7% of the total working population in 1971 to 4.8% in 1981. The economic boom of the 1970s also saw rapid development of such industries as construction, wholesale and retail trade, restaurants and hotels. Because of the substantial rise of employment in these industries, the relative share of manufacturing employment in the total work force dropped from 47% to 41% between 1971 and 1981. As a result of urbanisation and industrialisation, the share of employment in agricultural and fishing industries, already quite insignificant in 1961, further declined as more and more agricultural land and fish ponds were turned into building lots.

Changes in the industrial composition of the working population affect the occupational structure. The changes in the percentage of the labour force in a specified occupation can be considered as the sum of two components. The first, the industry effect, is the dominant one in Hong Kong. When employment in the manufacturing industry increased during the 1961–1971 period and decreased in 1971–1981, a similar variation was recorded for the workers in production and related occupations. Similarly, the expansion of financial and business services in the recent years resulted in an increase in the proportion of both clerical and professional workers. These industry effects are clearly revealed in Table 2.11.

Table 2.11 Percentage distribution of working population by occupation; 1961, 1971 and 1981

<i>Occupation</i>	<i>1961</i> %	<i>1971</i> %	<i>1981</i> %
Professional, technical and related workers	5.1	5.2	6.0
Administrative and managerial workers	3.1	2.4	2.7
Clerical and related workers	5.8	8.3	12.2
Sales workers	13.7	10.6	10.3
Service workers	15.1	14.8	15.6
Agricultural workers and fisherfolk	7.4	3.8	2.1
Production and related workers, transport equipment operators and labourers	48.7	52.3	50.4
Armed forces and unclassifiable	1.1	2.6	0.7

The second factor of variation in the occupational structure arises from the change in the occupation mix of the labour force within the various industries. Such a change is often concurrent with technological advance or improvement in the quality of goods or services being produced. In the case of manufacturing industry, there was a small decline in the proportion of production workers during the past decade and an increase in the proportion of professional, technical, administrative and managerial workers.

Table 2.12 Percentage distribution of working population by occupation in selected industries; 1971 and 1981

Occupation	Manufacturing		Wholesale and Retail Trade		Services		Financing, Real Estate, etc.	
	1971 %	1981 %	1971 %	1981 %	1971 %	1981 %	1971 %	1981 %
Professional and technical workers	0.8	1.6	0.3	1.1	26.7	23.3	13.2	11.9
Administrative and managerial workers	0.7	2.2	7.6	3.7	2.6	1.2	3.6	10.3
Clerical and related workers	3.8	5.9	16.3	14.6	7.4	14.6	58.9	60.8
Sales workers	4.9	2.8	45.5	43.5	1.6	0.7	9.5	9.2
Service workers	4.3	4.9	25.4	28.3	48.6	43.6	11.2	5.7
Production and related workers, labourers, etc.	84.5	82.2	2.4	8.5	7.9	13.7	1.3	1.8
Others	1.0	0.4	2.5	0.3	5.2	2.9	2.3	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

The occupational structure of employment is not merely determined by the demand of employers but also by such factors as the level of education of workers, job preference and adaptability to changing conditions of employment. Where a type of labour is scarce substitution of this labour will take place by the introduction of new machines and equipment and by labour with different skills, thus affecting the occupation mixes in various industries and the growth of industries. In considering the future trends of manpower requirements both demand and supply factors have to be considered.

Income from Main Employment

The 1981 Census obtained information on the monthly income of workers from their main employment. Figures recorded on income from employment refer to the amount a person earned from his main job one month before the Census, that is, February 1981 for the land population and January 1981 for the marine population. Whilst wages and salaries, commissions, overtime allowance, net earnings from self-owned businesses are included as income, the enumerators were instructed to exclude any New Year bonus or double pay received by some workers around the time of the Chinese New Year, which fell in February in 1981.

Table 2.13 below gives the income distribution of the working population in 1981 compared with five years ago; the 1961 and 1971 censuses did not include any questions on income from employment. The comparisons do not take into account the depreciation in the value of money, and to remedy this, the 1976 income figures are adjusted by an inflation factor based on the change in the consumer price index during 1976–1981. The revised distribution is given as a separate column in Table 2.13.

Table 2.13 Percentage distribution of working population* by income from main employment; 1976 and 1981

Income from Main Employment (HK\$)	At 1976	1976	At 1981	1981
	prices		prices	At 1981 prices
	%		%	%
Under 600	33.0		12.4	6.4
600–1,199	48.6		44.5	25.8
1,200–1,499	6.4		14.9	17.2
1,500–2,999	8.6		21.0	37.0
3,000–4,499	1.9		3.8	8.4
4,500 and over	1.5		3.4	5.2

* Excluding unpaid workers.

Table 2.14 gives the median income from the main employment for 1976 and 1981. Again the 1976 income figure has been recalculated to give its value in 1981 prices and this lowers the increase in median income between 1976 and 1981 from 104% to 37%. The next paragraph explains why the median and not the mean or mode was chosen as the measure of average income, and in doing so defines the median.

Table 2.14 Median income from main employment* and average annual increase; 1976 and 1981

	1976 HK\$	1981 HK\$	Percentage increase %	Average annual increase %
Median income from main employment				
At current prices	742	1,516	+104.3	—
At 1981 prices	1,109	1,516	+36.7	7.1

* Excluding unpaid workers.

The reasons for adopting the median instead of the mean or mode as a measure of average income are several. First the income distribution is highly skewed to the right, thus a small number of persons with extremely large income have a large effect on the mean income, and in an upward direction. Second the median income avoids the influence of extremes, it is the income of person in the middle of the income distribution: thus if there are 101 persons and they are arranged in order by size of income, the median income is the income of the 51st person, if there are 100 persons it would be the average income of the 50th and 51st persons. Third, it is probable that in the census a larger proportion of income earners in the higher income brackets have under-reported their income than those in the low and middle income brackets; this would reduce the estimated total income and the mean income but is unlikely to have much, if any, effect on the median income. Another measure, the mode – the income most people in the working force received – is rejected since its value depends too much on the way individual figures in the distribution are grouped together.

Table 2.15 below reveals that between 1976 and 1981 the income gaps between workers in different occupations have been narrowing. The ratio of the median income for each occupation other than sales workers to that of production and related workers, the occupation group with the largest number of workers, shows a decline in all occupations.

Table 2.15 Median income from main employment* by occupation; 1976 and 1981

Occupation	Median Income (HK\$)			Ratio to Median Income of Production Workers	
	1976		1981	1976	1981
	At current prices	At 1981 prices	At current prices		
Professional, technical and related workers	1,670	2,505	3,289	2.5	2.4
Administrative and managerial workers	2,691	4,037	4,638	4.1	3.3
Clerical and related workers	928	1,392	1,705	1.4	1.2
Sales workers	792	1,188	1,731	1.2	1.2
Service workers	721	1,082	1,396	1.1	1.0
Agricultural workers and fisherfolk	717	1,076	1,238	1.1	0.9
Production and related workers, transport equipment operators and labourers	663	995	1,387	1.0	1.0

* Excluding unpaid workers.

Household Income

It is convenient to discuss here an alternative measure of income – household income which relates to the sum of incomes of all persons in the household. Since many expenditure items such as food and housing have the household as the basic unit of consumption, it is relevant in many analysis to consider income at the household rather than the personal level. Apart from income from employment which has already been defined above, the household income also includes other cash income such as rent, dividends, interest, remittances and social welfare payments. In the 1971 Census incomes were counted de jure, i.e. through a direct question on household income of all usual members of the household in respect of the calendar month before the census reference period. In the 1976 By-census and the 1981 Census household incomes were counted de facto, i.e. information was derived from income of persons who were found to be in the household during the census reference date. The reference period adopted in both censuses was one month prior to the census.

Table 2.16 gives the distribution of household incomes in 1981 compared with ten years ago. The comparisons are given at both current prices and 1981 prices to take account of changes in the value of money during 1971-1981 as measured by the consumer price index.

Table 2.16 Percentage distribution of domestic households by monthly household income; 1971, 1976 and 1981

<i>Monthly Household Income (HK\$)</i>	<i>At Current Prices</i>			<i>At 1981 Prices</i>		
	<i>1971</i> %	<i>1976</i> %	<i>1981</i> %	<i>1971</i> %	<i>1976</i> %	<i>1981</i> %
Under 1,000	70.3	29.1	9.5	20.4	13.3	9.5
1,000-1,999	21.5	40.5	19.0	43.4	32.6	19.0
2,000-2,999	} 8.2	16.2	22.3	19.1	23.7	22.3
3,000-4,999		} 14.2	26.2	10.3	18.0	26.2
5,000-6,999			11.2	2.9	6.5	11.2
7,000-9,999			6.4	2.1	3.0	6.4
10,000 and over			5.4	1.8	2.9	5.4
<i>Median income (HK\$)</i>	708		1,425	2,955	1,600	2,132

The economic development of Hong Kong over the past decade has resulted in a general increase in the level of household income. Discounting the increases in consumer prices, the median household income rose by 33% in 1971-1976 and by 39% in 1976-1981, giving real income growth at the annual rates of 5.4% and 7.4% for the respective periods.

Data on household income are useful for ascertaining the purchasing power of the population. An example of the private sector use of the census information is provided by a study of the trends of the food and beverage industries in which the effects of changing household income is studied along with other variables such as the population size, age-sex structure and educational attainment, and tentative conclusions arrived at about the changing purchasing patterns with special regard to eating or drinking out.

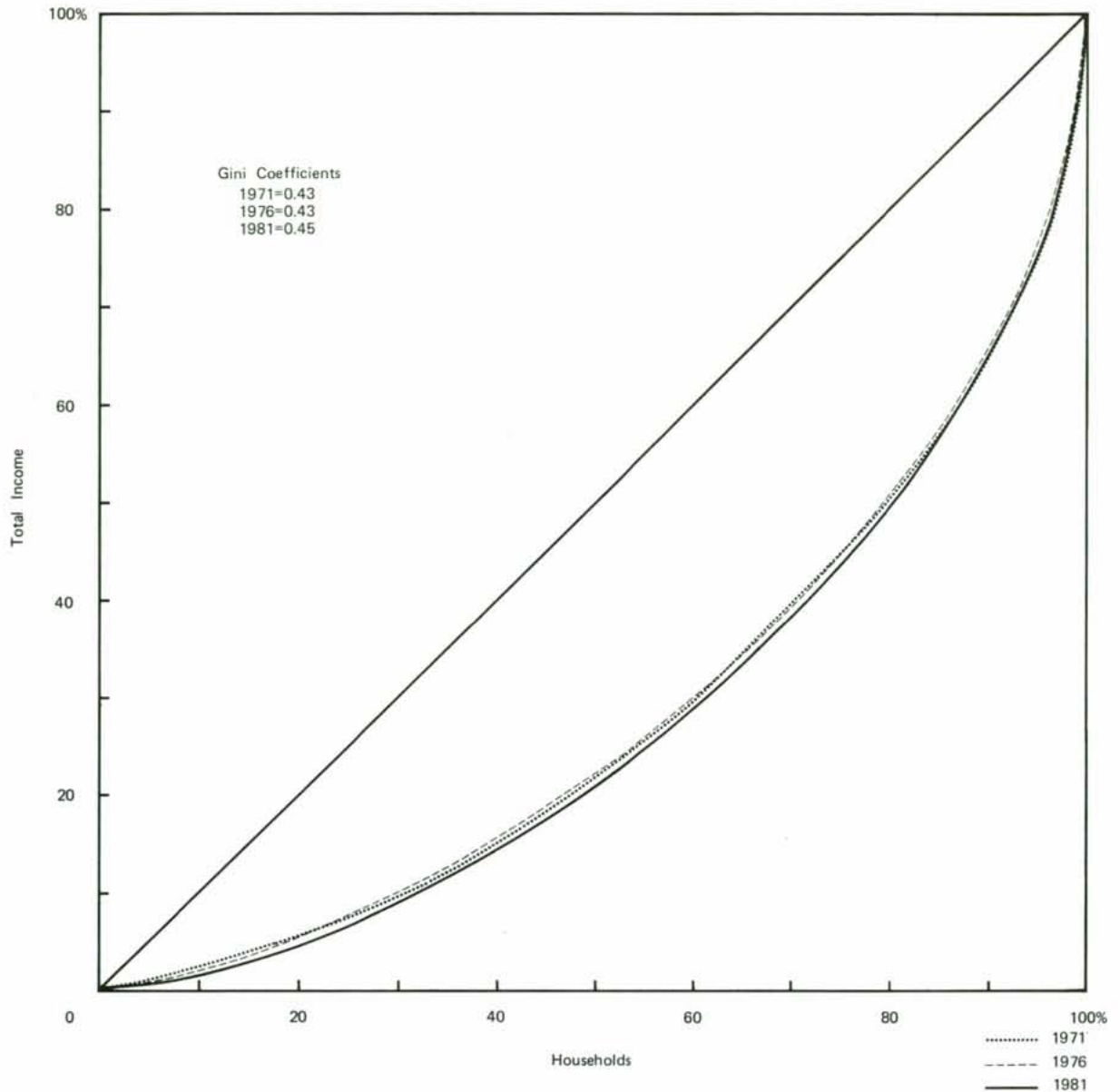
To measure the change in the extent of inequality in the distribution of income, one may consider the relative share of the total aggregate income of all households that are received by the lowest 10% of households, the lowest 20% of households, etc. up to the highest income group. This is done by ranking all households by their incomes, dividing them into ten equal groups beginning with the household with the lowest income - each part is known as a decile - and tabulating the relative income share of households in each decile. Table 2.17 below shows the changes in the household income distribution since 1971:

Table 2.17 Percentage share of aggregate household income by deciles of domestic households; 1971, 1976 and 1981

<i>Decile of Household</i>	<i>1971</i> %	<i>1976</i> %	<i>1981</i> %
1st	2.3	1.9	1.4
2nd	3.9	3.5	3.2
3rd	5.1	4.6	4.4
4th	5.1	5.5	5.4
5th	7.0	6.8	6.5
6th	7.3	8.1	7.8
7th	9.0	8.8	9.4
8th	11.0	11.3	11.5
9th	14.7	15.9	15.2
10th	34.6	33.6	35.2
Total	100.0	100.0	100.0
<i>Gini coefficient</i>	0.43	0.43	0.45

The Lorenz curve is another way of presenting the data on income distribution. This curve plots the cumulative percentage share of incomes against the cumulative percentage of households. If all households receive the same income, the Lorenz curve is a diagonal line drawn at 45°. Thus the closer the actual distribution curve is to the diagonal the greater is the equality in the distribution of income. A summary measure of this closeness is given by the Gini coefficient, which takes values between 0 and 1 and measures the ratio of the area between the Lorenz curve and the 45° line to the total area below the 45° line; the higher the Gini coefficient, the greater the inequality.

Lorenz Curves, 1971, 1976 and 1981



The overall Gini coefficients in Table 2.17 have not made any allowance for differences in the distribution of households by size between the years being compared. Since household income tends to increase with larger household sizes, a better indication of the change in income distribution is given by the Gini coefficients for households of different sizes:

Table 2.18 Gini coefficients by household size; 1971, 1976 and 1981

<i>Household Size (persons)</i>	<i>1971</i>	<i>Gini Coefficient 1976</i>	<i>1981</i>
1	0.42	0.46	0.50
2	0.43	0.43	0.45
3	0.42	0.41	0.41
4	0.42	0.41	0.41
5	0.40	0.40	0.39
6	0.38	0.38	0.37
7 and over	0.38	0.36	0.37
Total	0.43	0.43	0.45

Note: An increase in the Gini coefficient denotes a movement towards greater inequality of income.

Chapter 3

Education

Educational Attainment

The population census is the main source of information on the educational level and attainment of the population. Collecting data on educational attainment and levels is important because the data reflect the past and present provisions of educational services to the public and reveal imbalance, where it exists, between the demand for and supply of education. In the absence of a direct estimate of literacy, which is extremely difficult to obtain, statistics on educational level provide an indirect measure of people's ability to read, write, and count. Table 3.1 shows the number of persons by their highest educational level at 1981 for each age group.

Table 3.1 Number of persons by age group and educational level; 1981

<i>Age Group</i>	<i>No Schooling/ Kindergarten</i>	<i>Primary</i>	<i>Secondary/ Matriculation</i>	<i>Post- secondary/ University</i>	<i>Total</i>
3-5	224 523	5 780	—	—	230 303
6-14	35 944	541 960	193 111	—	771 015
15-24	18 217	248 540	817 335	63 665	1 147 757
25-34	36 129	325 921	437 508	82 637	882 195
35-44	57 706	200 216	173 951	51 514	483 387
45-54	151 709	241 747	95 704	27 506	516 666
55 and over	340 862	266 969	86 992	24 225	719 048
Total	865 090	1 831 133	1 804 601	249 547	4 750 371

The education system in Hong Kong can be classified broadly into four levels:

- (a) pre-primary or kindergarten education which normally caters for children in the 3-5 age group, and lasts for two or three years;
- (b) primary education which usually starts at the age of 6 and lasts for six years. Education for the age group 6-11 was made compulsory from September 1971;
- (c) secondary education which caters for children in the age range 12-18. For the first three years in the secondary cycle, namely Form I - Form III, education was made compulsory from September 1978 for the 12-14 years old. Students completing Form III may continue their education in secondary schools for two more years up to Form V, leading to the Hong Kong Certificate of Education; or follow technical and vocational courses in the Technical Institutes; or take up employment. Form V leavers successful in the Certificate of Education may proceed to a one- or two-year sixth-form course leading to the Higher/Advanced Level Examinations to prepare them for entry into universities or other post-secondary institutions, or employment;
- (d) post-secondary and university education which offers a wide range of choices to students completing secondary and/or sixth-form education, leading to the award of degrees, post-secondary diplomas, or other vocational or professional qualifications such as teacher certificates and engineering technician certificates.

In addition, opportunities are available to school leavers and adults to upgrade their level of education or training by attending part-time courses organised by the government adult education centres, post-secondary institutions and other private organisations.

The educational attainment of a population has an important bearing on issues such as fertility and labour force participation. Its measurement is important in many areas of policy-making and planning that are not strictly educational. From Table 3.2 below, it can be seen that the educational attainment of the population has improved considerably over the last 20 years.

Table 3.2 Percentage distribution of population aged 15 and over by educational attainment; 1961–1981

Year	No Schooling/ Kindergarten %	Primary %	Secondary/ Matriculation %	Post- secondary/ University %	Total %
1961	28.5	45.3	22.5	3.7	100.0
1971	22.7	44.1	28.8	4.4	100.0
1976	20.2	39.7	35.3	4.8	100.0
1981	16.1	34.2	43.0	6.7	100.0

While these statistics reflect the rapid improvement of educational opportunities at all levels, especially between 1971 and 1981 where the percentage of persons with only primary education was reduced from 44.1 per cent to 34.2 per cent, with corresponding increases in the proportions reaching higher levels of education, the overall rates shown above conceal a number of important points. For instance, the fact that there were some 16.1 per cent of the population who had no formal education or had only kindergarten education in 1981 requires closer examination. Table 3.3 below demonstrates one way of looking further into the statistics by cross-tabulating educational attainment by age groups.

Table 3.3 Percentage distribution of population aged 15 and over by educational attainment and broad age group; 1961–1981

Year	Age Group	No Schooling/ Kindergarten %	Primary %	Secondary/ Matriculation %	Post- secondary/ University %	Total %
1961	15–24	10.2	46.4	39.7	3.7	100.0
	25–34	22.1	51.8	22.6	3.5	100.0
	35–44	29.0	47.4	19.5	4.1	100.0
	45–54	38.2	41.9	15.7	4.2	100.0
	55 and over	57.5	30.4	9.4	2.7	100.0
1971	15–24	3.9	40.4	51.5	4.2	100.0
	25–34	12.1	46.4	34.1	7.4	100.0
	35–44	26.3	51.1	18.6	4.0	100.0
	45–54	33.2	47.9	15.0	3.9	100.0
	55 and over	51.2	36.7	9.1	3.0	100.0
1976	15–24	2.2	34.6	59.6	3.6	100.0
	25–34	6.8	41.4	43.6	8.2	100.0
	35–44	21.5	46.6	24.9	7.0	100.0
	45–54	34.7	46.6	15.4	3.3	100.0
	55 and over	50.4	35.6	11.1	2.9	100.0
1981	15–24	1.6	21.7	71.2	5.5	100.0
	25–34	4.1	36.9	49.6	9.4	100.0
	35–44	11.9	41.4	36.0	10.7	100.0
	45–54	29.4	46.8	18.5	5.3	100.0
	55 and over	47.4	37.1	12.1	3.4	100.0

It is immediately apparent from Table 3.3 that for the age group which is most affected in 1981 by the introduction in 1971 of compulsory primary education, namely the 15–24 age group, 1.6 per cent did not have primary education in 1981. Although this percentage is low, it would have been lower except for the fact that those over-aged in 1971 for compulsory primary education would not be affected by its introduction and that the influx of immigrants into Hong Kong, some of whom had no formal education, would have inflated the figure. For the population as a whole, the high percentage of persons who are deemed to be illiterate can be attributed to the large number of persons aged 45 and over having had no primary school education. This means that any literacy programme has to be directed towards these age groups.

The differences in the number of person in the age group 25–34 in 1961 and the number ten years later in the age group 35–44, and another ten years later in 1981 in the age group 45–54, can be accounted for by deaths, emigration and immigration in these periods. In 1961, the statistics show that 22.1% of the persons in the age group 25–34 had no formal education, in 1971 the figure for the age group 35–44 was 26.3%, and in 1981 for the age group 45–54 it was 29.4%. An immediate reaction to these figures is one of surprise since it would be expected without some abnormal circumstance that the percentages would have declined. Undoubtedly the reason for these figures was the large number of young persons who entered Hong Kong with no formal education, and possibly the emigration of some persons with formal education.

Net migration appears to have a reverse effect when we examine the proportion of persons with post-secondary or university education. For instance, the percentage of persons aged 15–24 who had post-secondary or university education was 3.7 in 1961, and rose to 7.4 per cent in 1971 for the age group 25–34, and 10.7 per cent in 1981 for the 35–44 age group. The increase is accounted for by the net inward flow of persons with post-secondary or university education into Hong Kong which includes immigrants and Hong Kong students who went abroad for further study, and by adults acquiring post-secondary or university qualifications through part-time or full-time study.

An analysis of the educational attainment of the population by sex, as shown in Table 3.4 below, indicates that males have, on the whole, received more education than females, though the gap between the two sexes is narrowing.

Table 3.4 Percentage distribution of population aged 15 and over by educational attainment and sex; 1971 and 1981

Year	Sex	No Schooling/ Kindergarten		Primary		Secondary/ Matriculation		Post- secondary/ University		Total	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1971	Male	9.9		49.6		34.5		6.0		100.0	
	Female	35.9		38.4		22.9		2.8		100.0	
	Total	22.7		44.1		28.8		4.4		100.0	
1981	Male	7.6		36.8		47.5		8.1		100.0	
	Female	25.5		31.5		37.9		5.1		100.0	
	Total	16.1		34.2		43.0		6.7		100.0	

Again the situation is better understood if the statistics are cross-tabulated by age. This is shown in Table 3.5 below. For the older age groups, say 55–64, the sex differential in terms of the level of educational attainment is very wide. For example, 60.6 per cent of females aged 55–64 years had no formal education in 1981, as compared with 18.4 per cent for the male population. This phenomenon is indicative of the traditional social attitude towards education for females. For the young age groups, however, the difference between males and females, not only in the actual attainment of formal, basic education, but also in the achievement of educational standards at the post-secondary or university level, is becoming quite insignificant. For instance, in the 15–24 age group, the percentage difference between males and females is only 0.8 for those with no formal education, and 0.7 for those with post-secondary or university education.

Table 3.5 Percentage distribution of population aged 15 and over by age, educational attainment and sex; 1981

Age Group	No Schooling/ Kindergarten		Primary		Secondary/ Matriculation		Post- secondary/ University		Total	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
	%	%	%	%	%	%	%	%	%	%
15–24	1.2	2.0	19.6	23.9	73.3	68.9	5.9	5.2	100.0	100.0
25–34	2.6	5.9	33.8	40.7	52.8	45.7	10.8	7.7	100.0	100.0
35–44	6.4	19.1	40.4	42.7	40.9	29.7	12.3	8.5	100.0	100.0
45–54	14.3	47.0	54.4	37.9	24.0	12.1	7.3	3.0	100.0	100.0
55–64	18.4	60.6	56.1	28.6	19.9	8.8	5.6	2.0	100.0	100.0
65 and over	26.4	78.6	51.1	16.4	17.1	3.9	5.4	1.1	100.0	100.0

Population and School Enrolment

The number of pupils attending schools is determined by both the size of the school-age population and the enrolment ratio which is the proportion of children within the school-age range attending schools. Once a country has specified some proportion of children in a certain age group to be accommodated in schools as part of its education policy, or when the enrolment ratio has reached almost 100 per cent or a saturation point, the total school enrolment and hence the amount of resources required to be devoted to the education sector, such as teachers and school buildings, are solely determined by the size, structure and growth of the population. As population changes are influenced by factors like fertility, mortality and population movement which are practically beyond the control of educational planners, one of the main tasks in planning education is to maintain a dynamic balance between independently determined population change and the provision of resources in the education sector.

In a period of rising school-age population and hence rising school enrolment, more schools will have to be built and more teachers trained and recruited. Too rapid an expansion in the education system may result in a lowering of standard. For example, admission to teacher training institutions may have to be less selective in order to recruit more teacher trainees. When school buildings cannot be completed in time, temporary expediciencies will have to be introduced. In a period of falling school-age population and hence falling enrolment, there is the opportunity for qualitative improvement such as increasing the teacher-pupil ratio and reducing class size. However, there is also the problem with schools becoming too small to be viable. As the teacher force does not expand at the same rate as before or even contracts, problems of redundancy will arise. This will definitely affect teachers' morale. These problems will be compounded in a period where the school-age population fluctuates creating successive 'peaks' and 'troughs' in enrolment, each with a different implication for educational planning. In order for educational planners to cope with these challenges, it is essential that information on the size, structure and future growth of the population is available to them. Because of the long lead- and lag-times inherent in any education system, population forecasts have to be produced for a fairly long time span.

Table 3.6 Population from past censuses and projected population for the school-age group; 1961–2001

<i>Level of Education</i>	<i>School-Age Group</i>	<i>Population Estimates/Forecasts</i>				
		<i>1961</i> (<i>'000</i>)	<i>1971</i> (<i>'000</i>)	<i>1981</i> (<i>'000</i>)	<i>1991</i> (<i>'000</i>)	<i>2001</i> (<i>'000</i>)
Pre-primary/Kindergarten	3–5	300.4	260.1	230.3	306.8	268.1
Primary	6–11	488.9	631.2	498.1	578.7	613.4
Secondary/Matriculation	12–18	329.5	661.0	722.9	619.1	755.3
Post-secondary/University	19–21	101.7	224.8	351.6	260.3	284.7

Table 3.6 above gives the past and predicted future changes in the size of the school-age population. The figures show that Hong Kong school-age population has been fluctuating in the last 20 years and will continue to do so in the next 2 decades to come. Because the enrolment ratio is changing in a different manner for different age groups, the impact on school enrolment will be different for different levels of education.

Table 3.7 Full-time enrolment by level of education; 1961, 1971 and 1981

<i>Level of Education</i>	<i>1961</i> (<i>'000</i>)	<i>1971</i> (<i>'000</i>)	<i>1981</i> (<i>'000</i>)
Pre-primary/Kindergarten	35.7	141.5	213.5
Primary	441.8	739.9	539.5
Secondary/Matriculation	95.4	250.9	456.2
Post-secondary/University	5.0	14.6	31.7

Source: Enrolment Statistics, Department of Education.

For enrolment at the pre-primary level, the decline in the number of children aged 3–5 years between 1961 and 1981 was not accompanied by a drop in the pre-primary or kindergarten enrolment because the age-specific enrolment ratio for this age range has increased. During this period, qualitative improvement at this level of education has given way to quantitative expansion, which is reflected in increases in the pupil-teacher ratio and the average class size (see Table 3.8 below). For the ten years between 1981 and 1991, enrolment will increase further as the size of the 3–5 age group population is projected to rise. By 1991, the pre-primary enrolment ratio will probably reach a saturation level which is likely to be very close to 100 per cent and the fall in the 3–5 age group population will cause the pre-primary enrolment to drop. Hopefully in time, more qualitative improvement could be introduced without much additional input of resources into the pre-primary education sector.

At the primary level, enrolment has increased between 1961 and 1971 as a result of growth of the 6–11 age group population and improvements in the rate of school attendance. After 1971 when school attendance had reached almost 100 per cent, the decline in the 6–11 age group population brought about a corresponding decline in enrolment. This provided educational planners with an opportunity to introduce qualitative improvement such as reducing both the pupil-teacher ratio and class size (see Table 3.8 below). As it is practically impossible to cut back on qualitative improvement when demand picks up again, it is anticipated that more resources will be required in the next two decades to cope with the rising school-age population shown in Table 3.6. The situation at the secondary level of education is similar to that at the primary level, but with a time lag of about six years.

At the post-secondary level of education, because a very low proportion of children in the school-age group are receiving post-secondary level, fluctuations in the size of the school-age population is unlikely to have significant effects on enrolment. Post-secondary enrolment will further increase in the 1980's despite a projected decline in the school-age population and continue to do so in the 1990's when the number in the school-age group picks up again.

Table 3.8 Pupil-teacher ratio and average class size by level of education; 1961, 1971 and 1981

<i>Level of Education</i>	<i>1961</i>	<i>1971</i>	<i>1981</i>
Pupil-teacher ratio			
Pre-primary	33.1	35.1	40.5
Primary	30.1	33.4	30.0
Secondary/Matriculation	—	27.6	28.6
Average class size			
Pre-primary	—	32.7	33.2
Primary	—	39.1	36.8
Secondary/Matriculation	—	40.6	39.6

Source: Department of Education.

Full Employment and Its Implications in Educational Attainment

In Hong Kong at the time of the census the labour force was 2.5 million and it is projected to increase to over 2.9 million in 1986 and 3.2 million in 1991. These estimates take into consideration the future trends in fertility, mortality and labour force participation, which can be estimated over this period with tolerable margins of error, and an assumed number of immigrants. The figures quoted above represent the estimates of the supply of labour, the demand for labour coming from private industry, government and other institutions. The demand depends upon several factors such as the expansion of the economy, the availability of capital for investment and, of course, a sufficient pool of labour with the requisite skills. In the analysis which follows it is assumed that the demand for labour will equal the supply of labour if the skills are available.

In a growing and dynamic economy some industries will be declining, others expanding, and new ones coming into existence. The demand for labour in these circumstances is almost certainly increasing and persons who have lost their jobs are only temporarily unemployed before they find work. There is in addition to this temporary unemployment, brought about by persons who have left their old jobs and are waiting to take up another job with higher remuneration and better prospects. Where these conditions exist, and Hong Kong is surely a good example, there is little, if any, long run chronic unemployment. In Hong Kong at the date of the census unemployment was about 4%, or we can say 96% of the labour force was employed. This figure of 96% of the labour force is referred to below as full employment.

Given full employment in the future and a rapidly growing labour force, what are the educational skills demanded by government, industry, commerce and services; and can the educational system provide sufficient persons with the right skills to meet the demands? Our task will be to look at the first part of the question, since an answer leans heavily on statistical information obtained from the 1981 Census.

The Committee to Review Post-secondary and Technical Education in a study of future demands for manpower by industry constructed a model which used past census data and data derived from the labour force surveys and gave estimates of the educational requirements. Their estimate is one of minimum requirements assuming that the present occupation pattern within each industry would continue but new entrants into employment would have a different occupation-educational attainment pattern from the average pattern. This leads to a more complicated model than if the average occupation-educational attainment pattern is applied to new entrants. In consequence, and for illustrative purposes only, a model is constructed which assumes the average pattern applies also to new entrants. Both the simple and more complicated models make full use of census information, and so demonstrate how statistical data, especially in this case census data, are required for policy making. For those more mathematically minded a matrix presentation of both the simple and the more complicated models are given in the Appendix.

The illustrative and simple model for estimating the educational attainment required to meet industry's minimum demands has the following steps:

- (a) project the population to 1986 and 1991;
- (b) apply a set of projected labour force participation rates to the population figures in (a) to give the labour force for the two years;
- (c) multiply the figures derived in (b) by 0.96 the ratio of employment to the labour force to estimate the employed population;
- (d) distribute the employed or working population in (c) among the various industries, which are assumed to grow at different rates based on past trends modified by personal judgement;
- (e) apply the 1981 occupational structure for each industry to the figures in (d), and thus derive the required numbers by occupation for 1986 and 1991;
- (f) apply to the numbers by occupation in (e) the occupation and educational attainment pattern of 1981 to give the numbers required by industry as a whole at each educational level.

Steps (a) and (b) need little comment. The figures for (a) are set out in the section on 'Population Projections' in Chapter 1 of this volume. Those for (b) can be found in Chapter 2 on 'Manpower Supply and Forecast' in this part. The figure of 0.96 in (c) has been explained and is considered reasonable since Hong Kong has not experienced long periods of chronic unemployment.

Employment projections by industry, (d) above, are prepared regularly by the Commissioner for Census and Statistics, the latest projections are based on the 1981 Census data. The method of projection adopted is a combination of trend analysis and consultation with government departments, industrial and commercial associations and large industrial establishments. The sum of these projected employment figures in each industry for 1986 and 1991, will not, except fortuitously, equal the employment figure (c) calculated to be the working population for the year in question. In fact, the initial calculations using (d) above for each of the years 1986 and 1991 exceeded the estimated working population in (c) and had to be scaled down to the working population. This implies that the constraint on employment came from the supply and not the demand side. Table 3.9 gives the 1981 figures of employment by industry which were the basis for 1986 and 1991 projections.

Table 3.9 Distribution of working population by industry; 1981

<i>Industry</i>	<i>Working Population</i>	
	<i>Number</i> (<i>'000</i>)	<i>Percentage</i>
Agriculture, forestry and fishing	47	2.0
Mining and quarrying	2	0.1
Manufacturing	990	41.2
Electricity, gas and water	15	0.6
Construction	186	7.7
Wholesale and retail trade, restaurants and hotels	461	19.2
Transport, storage and communication	181	7.5
Financing, insurance, real estate and business services	116	4.8
Services	376	15.6
Unclassifiable	30	1.3
Total	2 404	100.0

Different industries and firms within industries have different occupational structures and these structures change over time as industries expand, or decline, and new industries and new technologies are introduced. In this simple model it is assumed that the changes will be relatively slow and that occupational structures within industries can be taken to be fixed at the 1981 levels. This seems reasonable if we are only attempting at this stage to estimate the minimum requirements of industry, but more sophisticated assumption about the future structures taking into account upgrading of skills within industries can be made and new calculations arrived at.

The fixed coefficients, taken from the 1981 Census, are given in Table 3.10 below.

Table 3.10 Percentage distribution of working population by occupation and industry; 1981

Occupation	Industry										Total
	Agriculture and fishing	Mining and quarrying	Manufacturing	Electricity, gas and water	Construction	Wholesale and retail trade, restaurants and hotels	Transport, storage and communication	Financing, insurance, real estate and business services	Services	Unclassifiable	
	%	%	%	%	%	%	%	%	%	%	
Professional, technical and related workers	*	3.6	1.6	14.9	6.3	1.1	2.9	11.9	23.3	7.5	6.0
Administrative and managerial workers	0.1	4.6	2.2	2.1	1.4	3.7	2.8	10.3	1.2	1.8	2.7
Clerical and related workers	0.1	10.9	5.9	16.2	3.7	14.6	17.5	60.8	14.6	6.8	12.2
Sales workers	—	—	2.8	1.1	0.5	43.4	1.0	9.2	0.7	9.3	10.3
Service workers	0.2	7.0	4.9	7.2	4.4	28.3	6.2	5.7	43.6	13.2	15.6
Agricultural workers and fisherfolk	98.5	—	*	0.2	—	0.1	*	*	0.8	3.0	2.1
Production and related workers, transport equipment operators and labourers	1.0	73.3	82.2	57.2	83.4	8.5	69.4	1.8	13.7	49.1	50.4
Armed forces and unclassifiable	0.1	0.6	0.4	1.1	0.3	0.3	0.2	0.3	2.1	9.3	0.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* Less than 0.05%.

When the above coefficients are multiplied to by the relevant employment figures by industry we obtain the following figures of the projected distribution of the working population by occupation – see (e) above.

Table 3.11 Distribution of projected working population by occupation; 1981–1991

Occupation	Census Figure 1981	Number		Percentage		
		1986	1991	1981	1986	1991
Professional, technical and related workers	143 700	172 600	197 000	6.0	6.1	6.4
Administrative and managerial workers	64 100	75 500	83 100	2.7	2.7	2.7
Clerical and related workers	293 900	351 000	393 800	12.2	12.5	12.8
Sales workers	247 900	283 200	308 600	10.3	10.1	10.0
Service workers	374 100	454 100	520 100	15.6	16.1	16.9
Agricultural workers and fisherfolk	50 700	38 200	28 500	2.1	1.4	0.9
Production and related workers, transport equipment operators and labourers	1 212 600	1 423 400	1 522 900	50.4	50.5	49.7
Armed forces and unclassifiable	17 100	17 100	19 200	0.7	0.6	0.6
Total	2 404 100	2 815 100	3 073 200	100.0	100.0	100.0

The final stage is to multiply the figures for the 1981 structure of educational attainment by occupation, see Table 3.12 below, by the figures in Table 3.11 above.

Table 3.12 Percentage distribution of working population by occupation and educational attainment; 1981

<i>Educational Attainment</i>	<i>Occupation</i>								<i>Total</i>
	<i>Professional, technical and related workers</i>	<i>Administrative and managerial workers</i>	<i>Clerical and related workers</i>	<i>Sales workers</i>	<i>Service workers</i>	<i>Agricultural workers and fisherfolk</i>	<i>Production and related workers, transport equipment operators and labourers</i>	<i>Armed forces and unclassifiable</i>	
	%	%	%	%	%	%	%	%	
No schooling/Kindergarten	0.2	—	0.1	12.7	19.9	47.0	10.3	8.4	10.7
Primary	2.4	8.0	5.4	36.9	43.1	40.7	48.0	28.2	36.8
Lower secondary	3.9	11.7	10.3	17.9	18.1	6.6	24.6	21.2	19.1
Upper secondary	26.7	34.2	60.5	23.8	15.1	4.1	14.0	24.3	22.0
Matriculation	8.3	9.2	12.6	3.1	2.0	0.6	1.1	8.6	3.5
Polytechnic/Technical institute	8.6	4.8	3.9	0.9	0.3	0.1	0.8	2.1	1.7
Post-secondary	20.5	5.0	2.8	1.2	0.5	0.3	0.4	2.9	2.2
University	29.4	27.1	4.4	3.5	1.0	0.6	0.8	4.3	4.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

The outcome of these calculations is the projected minimum manpower requirements of industry by educational attainment; the figures are given below.

Table 3.13 Distribution of projected working population by educational attainment; 1981–1991

<i>Educational Attainment</i>	<i>Number</i>			<i>Percentage</i>		
	<i>1981</i>	<i>1986</i>	<i>1991</i>	<i>1981</i>	<i>1986</i>	<i>1991</i>
No schooling/Kindergarten	256 700	292 400	314 100	10.7	10.4	10.2
Primary	884 000	1 029 800	1 113 400	36.8	36.6	36.1
Lower secondary	460 300	541 700	589 400	19.1	19.2	19.2
Upper secondary	529 700	626 800	693 000	22.0	22.3	22.5
Matriculation	85 200	100 800	112 500	3.5	3.6	3.7
Polytechnic/Technical institute	40 300	48 300	53 800	1.7	1.7	1.8
Post-secondary	51 800	61 400	69 400	2.2	2.2	2.3
University	96 100	113 900	127 600	4.0	4.0	4.2
Total	2 404 100	2 815 100	3 073 200	100.0	100.0	100.0

It must be stressed that the above figures are not the figures calculated by the Committee to Review Post-secondary and Technical Education. As stated the method used by the Committee was more complicated and sophisticated, and took into account the average educational attainment of those already in the labour force, and the attainment of new entrants. This method entails estimating both the mortality and the retirement rates of those already in the working population in order to arrive at the number of survivors, and the number of new entrants. Given the availability of the 1981 Census data, the Government may revise the estimates if required.

Appendix 1

Method of Forecasting the Required Educational Attainment of Employed Manpower

Simple Model

1. (a) Let P_i and P'_i represent the population by age group in 1981 and 1986 respectively. P_i is the actual Census figure and P'_i the projected figure.
 (b) Let l_i and l'_i be the respective age-specific labour force participation rates.
 (c) Then $L_i = l_i P_i$ and $L'_i = l'_i P'_i$ give the total labour force in 1981 and 1986 in the various age groups.
2. (a) $e = 0.96$ is the assumed employment rate.
 (b) Then $e \sum L_i = X$ and $e \sum L'_i = X'$ are the respective totals of the working population. X is the actual 1981 Census figure and X' a projected figure for 1986.
3. (a) Let W_k be the number employed in industry 'k' in 1981.
 (b) Then $W = \sum W_k = X$ since W and X both refer to the total working population.
4. (a) If t_k is the assumed rate of growth of employment in industry 'k' between 1981 and 1986.
 (b) Then $t_k W_k = Y_k$ is a first estimate of the working population in industry 'k' in 1986; and
 (c) $\sum Y_k = Y$ is another estimate of the total working population in 1986.
5. (a) If $Y \neq X'$ (see 2b above), then we assume X' to be the correct estimate – this is the condition for full employment.
 (b) $W'_k = \frac{X'}{Y} Y_k$ gives the adjusted industry employment which satisfy:
 (c) $\sum W'_k = W' = X'$
6. (a) Let $\underline{A} = [a_{jk}]$ where 'j' refers to occupation and 'k' to industry, be the fixed set of coefficients giving the occupational share within the industries (note that the columns sum to unity).

(b) Then $\underline{A} \underline{W}' = \underline{M}$ where \underline{W}' represents the vector $\begin{bmatrix} W'_1 \\ \vdots \\ W'_k \\ \vdots \\ W'_K \end{bmatrix}$ of employment by industry and $\underline{M} = \begin{bmatrix} M_1 \\ \vdots \\ M_j \\ \vdots \\ M_J \end{bmatrix}$ is a vector of the numbers in the various occupations in 1986.

7. (a) Let $\underline{B} = [b_{ij}]$ where 'i' refers to educational level and 'j' to occupation be the fixed set of coefficients relating educational level to occupation (note that the columns sum to unity).

(b) Then $\underline{B} \underline{M} = \underline{E} = \begin{bmatrix} E_1 \\ \vdots \\ E_i \\ \vdots \\ E_I \end{bmatrix}$ is a vector showing the number of working population required by industry with educational attainment 'i'.

This ends the simple model.

Complicated Model

8. (a) Let s_i be the survival rate of persons in the working population in 1981 of age (or age group) 'i' who are working in 1986. The survival rates take account of mortality and retirements of workers between 1981 and 1986.
 (b) $\sum s_i X_i = X'_S$ will be the total number of survivors and $X' - X'_S$ the total number of new entrants in the 1986 working population.
 (c) Let $u = \frac{X'_S}{X'}$ be the proportion of survivors of the working population.

9. (a) Then $u \underline{M} = \begin{bmatrix} u M_1 \\ \vdots \\ u M_j \\ \vdots \\ u M_J \end{bmatrix} = \begin{bmatrix} S_1 \\ \vdots \\ S_j \\ \vdots \\ S_J \end{bmatrix} = \underline{S}$ is a vector giving the estimate of the number of survivors by occupation in 1986. Note that $\sum S_j$ equal X'_S , the total number of survivors.

(b) $\underline{M}-\underline{S} = \begin{bmatrix} M_1-S_1 \\ \vdots \\ M_j-S_j \end{bmatrix} = \begin{bmatrix} N_1 \\ \vdots \\ N_j \end{bmatrix} = \underline{N}$ represents the estimate of new entrants into the 1986 working population by occupation.

10. $\underline{B} \underline{S} = \underline{\hat{E}} = \begin{bmatrix} \hat{E}_1 \\ \vdots \\ \hat{E}_j \end{bmatrix}$ where \underline{B} is given in 7(a), represents the number of survivors in 1986 of the 1981 working population by educational attainment.

11. (a) Let $\underline{\tilde{B}} = [\tilde{b}_{ij}]$ represents the matrix of educational attainment of new entrants—this matrix relates to the education and occupation pattern of the working population in the age group 25–29 in 1981.

(b) $\underline{\tilde{B}} \underline{N}$ (\underline{N} as given in 9b) = $\underline{\tilde{E}} = \begin{bmatrix} \tilde{E}_1 \\ \vdots \\ \tilde{E}_j \end{bmatrix}$ gives the number of new entrants in 1986 by educational attainment.

12. $\underline{\hat{E}} + \underline{\tilde{E}} = \underline{E} = \begin{bmatrix} E_1 \\ \vdots \\ E_j \end{bmatrix}$ is the total of survivors and new entrants by educational attainment in 1986.

Note: The figures for 1991, (or 1996 etc.) can be obtained in two ways. The first retains 1981 as the starting or base year and replaces 1986 in the text above by 1991. This was the method used to produce the figures given in the tables for 1991. The second is an iterative method where 1981 base figures are replaced by the projected or calculated figures for 1986. These figures now become the base figures for projecting the estimates for 1991.

Chapter 4

Headship and Households

This report has described in some detail the characteristics of individuals and has so far said nothing about persons as members of a family or a household. However when we are discussing housing needs, or consumer expenditure or savings it is generally the family or household which we must consider as the unit.

There are two ways in which a group of persons living together in a living quarter can be described. One is a 'family' which is defined to include persons related by kinship, adoption, or marriage and the other is 'household' which refers to persons sleeping under the same roof and eating together. The two terms are conceptually different and, therefore, not interchangeable, although in many instances the family coincides with that of the household. In this report we focus mainly on the household.

Two broad categories of households were classified in the 1981 Census; collective households living in institutions such as old people's homes, hostels, staff quarters in factories and workshops etc., and domestic households which include any group of persons, whether related or not, who lived together in the same living quarter and sharing the same food or the expenses of the household, or a person who is solely responsible for preparing his or her own meals. In Hong Kong in 1981 there were 83 000 persons living in collective households and 4.90 million persons, or 98% of the total population, in domestic households.

Headship

In the analysis of households the concept of head of the household plays an important role in classification. The head can be defined in three different ways, viz.:

- (i) the household head is the one acknowledged as such by the respondents;
- (ii) he or she is the chief income earner;
- (iii) he or she is the eldest person who is economically active.

The numbers of household heads using these definitions are given in Table 4.1.

Table 4.1 Number of head of domestic households defined by different conditions; 1981 Census

<i>Head claimed by respondents</i>	<i>Head defined as chief income earner</i>	<i>Head defined as the eldest person who is economically active</i>
1 244 700	1 237 800	1 155 600

All households will have a head according to definition (i), but where there is no income earner or no person economically active in the household, there is no head under definitions (ii) and (iii). Definition (i) is preferred since it captures all households, it reflects social reality in that it follows the household's view of whom is the head, it is the most useful in making household projections and estimating housing needs, and it was used in previous censuses whereas definitions (ii) and (iii) were not.

Bearing in mind that there is one head for each household, we can always in the analysis which follows interchange the number of heads and headship rates with the numbers and rates relating to households. Discussing the changes in the number of heads is discussing the changes in the number of households which in turn is a discussion of the number of quarters required if each household is to have its own living quarter.

Most demographers predict an increase in headship rates over time because of the increasing desire for privacy and independence and the increase in incomes making it possible for a larger number of households to be formed as a result of members living away from their families and owning or renting their own dwelling. As yet, privacy is a luxury for poor families and has to be traded off for the necessities of life, which often means that members of a large family have to live together. Undoubling, largely the outcome of increasing incomes, is undoubtedly an important factor in Hong Kong in the increase in the number of headships.

Table 4.2 Age-specific headship rates; 1971, 1976 and 1981

<i>Age Group</i>	<i>Headship Rate (per hundred population)</i>		
	<i>1971</i>	<i>1976</i>	<i>1981</i>
15–19	2.6	3.1	3.1
20–24	9.4	11.0	11.0
25–29	27.6	26.3	25.1
30–34	42.1	42.3	38.7
35–39	48.3	50.0	48.0
40–44	52.9	52.4	53.5
45–49	55.0	55.4	55.8
50–54	56.4	56.3	57.0
55–59	55.4	56.4	57.3
60–64	50.7	54.1	55.3
65 and over	38.0	42.9	47.3

The above table relating to age-specific headship rates reveals some important changes between 1971 and 1976 and 1976 and 1981.

- (i) The rates for persons in the age group 15 to 24 increased during 1971–1976 because of the increase in one-person households. In the next 5 years this increase was halted because of what may be called the immigrant effect – because of high rents and a shortage of housing stock the headship rate among immigrants is low compared with non-immigrants.
- (ii) For the age group 25 to 44 the rates were fairly stable over the period 1971–1976, but over 1976–1981 they decreased, and this was particularly significant for the age group 25 to 34. The reasons again were mainly the immigrant effect with the undoubling of households playing a counteracting but minor role.
- (iii) The rates for the age group 45 and over increased over the period 1971–1981, and were significant for ages 65 and over. The immigrant effect was negligible with undoubling the main cause. Undoubling occurred mainly as a result of heads of families, with the head generally 25 to 44 years of age, leaving to form a separate household, and in consequence, a separate headship.

Household Size

Household size is determined by several factors, but we can for the purpose of analysis discuss two factors – the presence of children, reflecting changes in fertility rates, and the tendency of adults to decide to live together or apart. Table 4.3 gives data on household size for the years 1971 to 1981 and includes an estimate of size if there had been no immigrant effect.

Table 4.3 Average household size, children per household and adults per household; 1971, 1976 and 1981

<i>Year</i>	<i>Average household size</i> <i>(1)</i>	<i>% of children under 15</i> <i>(2)</i>	<i>Children per household</i> <i>(3) = (1) × (2)</i>	<i>Adults per household</i> <i>(4) = (1) – (3)</i>
1971	4.51	36.2	1.63	2.88
1976	4.23	30.7	1.30	2.93
1981 (actual)	3.94	25.1	0.99	2.95
1981 (excluding immigrant effect)	3.84	25.2	0.97	2.87

The immediate point of interest is the fall in the average household size and this fall is associated with a significant decrease in the number of children per household, which can be called the fertility effect, and a slight increase in the number of adults per household, which can be termed the jointness or apartness effect. If the 1981 figures, excluding the immigrant effect, are scrutinized we note that average household size, children per household and adults per household would all have been lower.

So far little has been said about the relationship of family and household. Their association is important in studying housing needs and in understanding some of the problems met by social service workers dealing with family problems. Table 4.4 gives the data, but, first, attention needs to be drawn to the definitions. In the 'Definitions of Terms' in this report household composition is defined in terms of 'nuclear families', 'vertically extended nuclear families', etc. These are unfamiliar terms, though no doubt precise and well-understood by sociologists. However it is thought that they will only confuse the ordinary reader. In consequence, less precise but more understandable descriptions have been used.

Table 4.4 Distribution of domestic households by household composition; 1976 and 1981

<i>Household Composition</i>	<i>Number (in thousands)</i>		<i>Percentage</i>		<i>% Change between 1976 and 1981</i>
	<i>1976</i>	<i>1981</i>	<i>1976</i>	<i>1981</i>	
One person	147	189	14.8	15.2	+28
One family	602	677	60.2	54.4	+13
Extended families	174	277	17.4	22.3	+60
Family with other related persons not of the same generation	94	169	9.4	13.6	+80
Family with other related persons of the same generation	20	30	2.0	2.4	+53
Two or more families	60	78	6.0	6.3	+30
Non-family household	77	101	7.6	8.1	+32
Total	999	1 245	100.0	100.0	+25

Note: Figures may not add up to the total because of rounding.

To complete this description of headships and households we need to have some data on the distribution of the number of households by household size – persons per household. The distribution is given in percentage form in Table 4.5 below.

Table 4.5 Percentage distribution of domestic households by household size; 1971, 1976 and 1981

<i>Household Size</i>	<i>1971 %</i>	<i>1976 %</i>	<i>1981 %</i>
1	14.7	14.7	15.2
2	12.9	14.1	15.4
3	12.1	13.5	15.4
4	12.8	14.7	17.2
5	12.6	13.9	14.3
6	11.6	11.6	10.1
7 and over	23.3	17.5	12.4
<i>Average household size</i>	4.5	4.2	3.9

The changes which have taken place in the period 1971–1981 can be summarised as follows:

- (i) a slight increase in the percentage of households occurred in one-person households, and was most marked for persons in the age group 15 to 24 (as seen in Table 4.2);
- (ii) a fairly rapid increase is apparent for households with 2 to 5 persons, reflecting the movement towards single family households with a small number of children, which might be considered the adaptive family structure in a highly urbanised society;
- (iii) a downward movement in the percentage of households with 6 or more members which was influenced by the decline in fertility and by an offsetting factor, doubling-up, which resulted from some recent immigrants going up with other households.

Headship and Household Projections

Projecting the number of headships is equivalent to projecting the number of households, and it is implicit that in determining the numbers of headships we determine the number of households and not the other way round.

The assumptions on future age-specific headship rates are based on a study of past trends and judgement in the light of other countries experiences. They are as follows:

- (i) headship rates in the age group 15–24 will increase but at a slower rate than in the past;
- (ii) the rates for the age group 25–29 will increase moderately to the 1976 level until 1991, and then stabilise at that level;
- (iii) the rates for the age group 30–44 will stabilise at the 1976 level;
- (iv) the rates for the age group 45 and over will increase but at a slower rate.

These projected rates for several future years are given in Table 4.6.

Table 4.6 Projected age-specific headship rate; 1986–2001

<i>Age Group</i>	<i>Projected Headship Rate (per hundred population)</i>			
	<i>1986</i>	<i>1991</i>	<i>1996</i>	<i>2001</i>
15–19	3.21	3.32	3.33	3.33
20–24	11.34	11.72	11.74	11.75
25–29	25.68	26.31	26.31	26.31
30–34	42.26	42.26	42.26	42.26
35–39	50.02	50.02	50.02	50.02
40–44	52.43	52.43	52.43	52.43
45–49	55.90	55.98	55.98	55.99
50–54	57.05	57.11	57.11	57.12
55–59	57.53	57.73	57.74	57.75
60–64	55.81	56.29	56.31	56.33
65 and over	48.32	49.40	49.44	49.49

Given one headship equals one household the above figures are used to project the number of domestic households and the average number of persons in these households; the figures are shown in Table 4.7.

Table 4.7 Number of domestic households in 1981 and the projected number for 1986–2001

<i>Year</i>	<i>Projected number of domestic households (million)</i>	<i>Projected population living in domestic households (million)</i>	<i>Average household size</i>
	1981	1.24	4.89
1986	1.57	5.57	3.54
1991	1.85	6.11	3.30
1996	2.10	6.58	3.14
2001	2.31	6.96	3.01

To estimate housing needs the number of domestic households projected for the future must be classified by size of household and the distribution by size is changing all the time. Estimates by size had to be based on a set of assumptions which took into account the projection of past trends in household size and the data and trends for other countries whose experience was considered relevant. The projected number of households and the percentage distribution by size, based on the assumptions, are given in Table 4.8.

Table 4.8 Projected number of households and percentage distribution by household size; 1986–2001

	<i>1986</i>	<i>1991</i>	<i>1996</i>	<i>2001</i>
<i>Total number of households (million)</i>	1.57	1.85	2.10	2.31
<i>Household size (%)</i>				
One	15.7	16.2	16.6	17.1
Two	17.6	19.4	21.2	22.7
Three	17.7	20.0	22.8	26.3
Four	21.6	24.0	22.4	19.3
Five	12.9	11.1	9.7	8.4
Six	8.0	6.0	4.9	4.3
Seven and over	6.4	3.4	2.5	1.9
Total	100.0	100.0	100.0	100.0
<i>Average household size</i>	3.54	3.30	3.14	3.01

Note: Figures may not add up to the total because of rounding.

The above figures reveal that the percentage of one-person households is expected to increase slowly, but households with two to four members are projected to increase rapidly and the proportion of these households to the total number of households to rise from 48% in 1981 and to 63% and 68% respectively in 1991 and 2001. The mode – the most frequent number of households – is seen to be a four member household in 1981, but has fallen to three members by 1996. This is in line with the expected overall decline in the average household size. The percentage figures for the larger sized households – five members and over – are projected to decrease fairly rapidly.

This completes the analysis of headships, households and the future projections of the number of households and their distribution by size. These data are basic to the planning of housing needs.

Chapter 5

Housing Characteristics and Requirements

Data collected in the census have many applications in the field of housing. A major use is the assessment of the current requirements for housing by households who are living in accommodation below current acceptable standards and thus in need of alternative housing provisions; the criteria and assessment are discussed under 'current housing requirements'.

First, housing conditions over the past ten years are examined, second, an assessment is made of the potential requirement for additional living quarters by current households according to some current, socially accepted criteria and finally the needs of future households are considered.

Past Changes

The housing requirement in Hong Kong has been increased by the substantial growth in population. In spite of a marked fall in fertility since the mid-1960's, the population increased at a rate of about 2.4% during the periods 1961–1971 and 1971–1981. Immigration was partly responsible for this growth and between 1978 and 1980 the large inflow of legal and illegal immigrants was nearly 400 000. The rate of increase in the number of households between 1971 and 1981 was 3.8% per annum, higher than the increase of the population, and this further aggravated the housing problem.

This increase in the number of households was partly due to continuing economic prosperity which enabled young people to move out of the family at an earlier age and old people to maintain a more independent existence. Since the household, and not the individual, is the consumer of housing, the increase in the number of households has a direct effect on housing requirement; details of household changes have been discussed earlier.

Table 5.1 Total population and number of domestic households; 1961, 1971 and 1981

Year	Population		Domestic Households	
	Number (in million)	Average annual growth %	Number (in million)	Average annual growth %
1961	3.13		0.69	
1971	3.94	2.3	0.86	2.2
1981	4.99	2.4	1.24	3.8

To put in perspective the changes in housing conditions over the past decade a brief description is given of the position in 1971. According to the 1971 Census, some 31% of land-based households were living in public rental estates. Many of these tenants were accommodated in self-contained units but there were still significant numbers living in non self-contained units in the Mark I and Mark II resettlement blocks – these were 6–8 storey structures built between 1954 and 1964 with uniform design offering rudimentary accommodation and communal washing and latrine facilities. Private housing then accommodated 60% of households, with the majority living in apartment blocks, tenement floors and composite buildings – see 'Definition of Terms'. Sharing of quarters by more than one household was not uncommon and the average in private block was 1.67 households per living quarter. Many households lived in bedspaces, cocklofts, verandahs, etc. Shortage in housing was also demonstrated by the 8.5% households who were living in temporary accommodation such as roof-top structures, squatter huts, derelict boats, rural shacks, and mobile dwellings.

In 1972 the Ten-Year Housing Programme was announced and aimed at overcoming Hong Kong's housing problems and providing all households with a permanent, self-contained home at a price they could afford. The plan provided for a very rapid public housing building programme and, as part of the housing drive, the Resettlement Department and Housing Authority were amalgamated into a new Housing Authority to oversee a programme of housing development.

Table 5.2 below gives the distribution of and increases in the number of occupied living quarters by type in 1971 and 1981.

Table 5.2 Distribution of occupied living quarters by type; 1971 and 1981

<i>Type of Living Quarter</i>	<i>1971</i> <i>('000)</i>	<i>1981</i> <i>('000)</i>	<i>Difference</i> <i>(1981-1971)</i> <i>('000)</i>
Public and aided housing			
Self-contained	142	301	+159
Non self-contained	118	103	-15
Private housing blocks	261	422	+161
Housing Authority home ownership estates	—	7	+7
Modern houses/Modern village houses	7	23	+16
Simple stone structures	50	50	—
Institutions and other permanent housing	11	48	+37
Temporary housing	66	106	+40

Over the past ten years there has been a high level of construction in the private sector and the net stock of private occupied quarters increased by 214 000, an average of about 21 000 a year. This high level was the outcome of a sustained demand for residential property arising from the appreciable growth in incomes. Quarters provided by the public sector, including the Home Ownership Scheme estates (which were first available for occupation in 1980), grew at an average of about 17 000 quarters a year. The annual construction figures for both the private and public sectors were higher at the end of the 1970's and in 1980 annual construction in the public and private sectors respectively rose to 33 000 and 25 000.

Table 5.3 Distribution of land-based domestic households and population in domestic households by broad type of living quarter; 1971 and 1981

<i>Broad Type of Living Quarter</i>	<i>Domestic Households</i>				<i>Population in Domestic Households</i>			
	<i>1971</i> <i>('000)</i>	<i>1981</i> <i>('000)</i>	<i>1971</i> <i>%</i>	<i>1981</i> <i>%</i>	<i>1971</i> <i>('000)</i>	<i>1981</i> <i>('000)</i>	<i>1971</i> <i>%</i>	<i>1981</i> <i>%</i>
Public and aided housing	263	413	31.1	33.3	1 428	1 917	37.7	39.5
Private housing and institutions	512	703	60.4	56.8	2 043	2 494	53.9	51.4
Housing Authority home ownership estates	—	7	—	0.6	—	31	—	0.6
Temporary housing	72	115	8.5	9.3	320	413	8.4	8.5
Total	847	1 238	100.0	100.0	3 792	4 854	100.0	100.0

Note: Figures need not add up to total because of rounding.

Table 5.3 shows that despite the large increase in the number of households accommodated in public and aided housing during 1971–1981 the proportion of households living in public housing rose only moderately from 31% to 33%. The proportion in the temporary sector rose because of the considerable immigration in 1978–1980.

All the new public housing estates built in the 1970s were self-contained units in the sense that each had its own entrance, internal kitchen, toilet facilities and piped water. A massive re-development programme aimed at improving the living conditions in the Mark I and Mark II estates was introduced after 1972.

Table 5.4 Distribution of land-based domestic households by type of living quarter; 1971 and 1981

<i>Type of Living Quarter</i>	<i>1971</i>		<i>1981</i>	
	<i>Number</i> <i>('000)</i>	<i>%</i>	<i>Number</i> <i>('000)</i>	<i>%</i>
Public and aided housing blocks				
Self-contained	142.6	16.9	308.3	24.9
Non self-contained	120.6	14.2	104.8	8.4
Private housing blocks				
Self-contained and Non self-contained	434.9	51.3	586.8	47.4
Housing Authority home ownership estates	—	—	7.2	0.6
Modern houses/Modern village houses	8.6	1.0	26.3	2.1
Simple stone structures*	57.6	6.8	57.8	4.7
Institutions and other permanent housing	10.8	1.3	31.8	2.6
Temporary housing	71.6	8.5	114.7	9.3
Total	846.7	100.0	1 237.6	100.0

Note: Figures need not add up to total because of rounding.

* The figure for 1971 includes resettlement cottages.

The majority of households in the private sector were living in self-contained units in apartment blocks, composite buildings, modern houses and modern village houses, with a minority in tenement floors, old village type houses and various kinds of simple stone structures. By 1981 the degree of sharing within the private housing sector had been reduced, and only 39% of households in private housing were sharing a living quarter with other households – this compared with 52% ten years earlier.

Table 5.5 Average degree of sharing in private housing by type of living quarter; 1971 and 1981

<i>Type of Living Quarter</i>	<i>1971</i>	<i>1981</i>
Private housing blocks	1.67	1.41
Modern houses/Modern village houses	1.20	1.11
Simple stone structures*	1.15	1.15
Institutions	1.02	1.03
Other permanent housing		1.06

* The figure for 1971 includes resettlement cottages.

Despite the continuous efforts to meet the housing needs of lower income households through the public housing programme, and the clearance of squatter huts for land development, there were still 9% of households living in temporary housing in 1981. The figure includes many recent immigrants who could neither afford accommodation in private permanent buildings nor be eligible for resettlement in public housing estates.

With growing prosperity a significant trend was the increasing proportion of households becoming owner-occupiers. For the lower income households government subsidised home-ownership flats had been available since 1980; these flats came under the Home Ownership Scheme introduced in 1976. In private housing about 40% of the households were owner-occupiers. The combined picture by tenure, for all households, is given in Table 5.6 below.

Table 5.6 Percentage distribution of domestic households by tenure; 1971 and 1981

<i>Tenure</i>	<i>1971</i> %	<i>1981</i> %
Owner-occupier	18.1	27.9
Sole tenant	45.5	44.0
Main tenant, sub-tenant and co-tenant	30.2	21.2
Rent free and accommodation provided or subsidised by employer	6.2*	6.9

* In 1971 no information was available on households occupying accommodation provided or subsidised by employers, and these households were included under the other forms of tenure.

An important aspect of housing is the amount of monthly rent paid by households for their accommodation. The census provided data on the level and distribution of rent in both public and private housing and this data together with the rent-income ratio is given in Table 5.7. The rent-income ratio is defined as the ratio of the median household rent to that of the median household income (see 'Definition of Terms' for 'median'). Such averages as the median or mean rent should be interpreted with caution because they cover the rents of a large variety of types of accommodation. For example, the median rent for private housing covers households occupying a whole flat and households living in rooms or cubicles and sharing the living quarter with other households. Therefore changes in the level of the median rent can be partly due to variation in the mix of accommodation of different qualities and partly due to increase in rent. Notwithstanding this limitation, the median rent and the rent-income ratio as presented in Table 5.7 below are sufficiently reliable to demonstrate that rent paid by households in public housing is much lower than that paid by households in the private sector.

Table 5.7 Percentage distribution of domestic households* by household rent, median rent and rent-income ratio by broad type of living quarter; 1981

<i>Household Rent (HK\$)</i>	<i>Public and aided housing</i>	<i>Private housing and institutions</i>	<i>Temporary housing</i>
	%	%	%
Under 100	32.3	9.8	68.3
100– 199	34.6	13.4	14.9
200– 399	31.6	23.1	10.6
400– 999	1.5	36.6	5.9
1,000–2,999	—	14.8	0.3
3,000 and over	—	2.3	—
Total	100.0	100.0	100.0
<i>Median Rent (HK\$)</i>	151	442	80
<i>Rent-income Ratio</i>	5.2%	16.2%	3.7%

* Excluding rent-free households such as owner-occupiers.

Government subsidies for public housing and increased incomes led to a reduction in the rent-income ratio, even though the quality of the quarters improved and rents rose. A fall in the rent-income ratio was also recorded for private housing. These figures are given in Table 5.8.

Table 5.8 Rent-income ratios by type of living quarter and accommodation; 1971, 1976 and 1981

<i>Type of Living Quarter and Accommodation</i>	<i>Rent-income Ratio</i>		
	1971* %	1976 %	1981 %
Public and aided housing blocks	6.3	4.4	5.2
Self-contained		6.6	6.1
Non self-contained		2.6	3.1
Private housing and institutions	19.6	19.5	16.2
Private housing blocks			
self-contained: whole house/flat		23.7	19.9
self-contained: rooms, bedspaces, etc.		20.0	16.5
non self-contained: whole house/flat		8.5	13.7
non self-contained: rooms, bedspaces, etc.		8.8	7.3
Modern houses/Modern village houses		14.1	16.7
Simple stone structures		8.2	7.1
Institutions and other permanent housing		3.8	4.2
Temporary housing	7.7	4.4	3.7

* Figures by detailed type of living quarters and accommodation are not available from the 1971 Census.

Current Housing Requirements

To meet the housing requirements of the population is a major task. Population and the number of households have increased markedly during the past decade and growth will continue in the future. The requirement for housing is substantial and the supply comes from both the public and private sectors.

People's aspirations for housing would change as living standards improve. Furthermore, criteria of acceptable housing vary among individuals for social and economic reasons. Some may prefer sharing accommodation with other households, for the sake of economy and convenience, while some may find their 'non self-contained' simple stone structures entirely satisfactory and are not in favour of any change in housing conditions.

Some criteria nevertheless must be set for assessing housing requirements. The criteria adopted in the present assessment are regarded as those probably most acceptable to Hong Kong's public, having regard to people's preferences as reflected in their current choices of accommodation. The criteria for determining the housing requirements are as follows:

- (a) the living quarters should be built of permanent materials;
- (b) they should have basic living facilities;
- (c) they should be unshared except in cases where small size households would be willing to share.

The calculations required for estimating current housing requirements are as follows:

- (a) determine the number of households whose current housing conditions fall short of the above criteria;
- (b) establish the number of living quarters required to enable these households to achieve housing conditions specified in the above criteria; and
- (c) estimate the broad types of housing required taking into consideration the size and income of households.

As will be seen, steps (a), (b) and (c) would be mere guesswork without the basic data provided by the census on numbers of households by types of housing, tenure, degree of sharing in living quarters, household size, income distribution and so on. The above criteria for establishing housing requirements are not exhaustive but are sufficient for purposes of analysis and information relating to them is available also from the census.

Occupants of Mark I and Mark II estates – living quarters in these estates do not have internal washing and toilet facilities – are in need of new accommodation according to the above criteria. Except for single persons, there is virtually no sharing in public housing estates and households in Group A Blocks and those in Mark III to Mark VI and Housing Society rental estates housing are considered to be satisfied with their present accommodation which meet the above housing criteria. The data are given in Table 5.9.

Table 5.9 Distribution of domestic households in public and aided housing by type of living quarter; 1981

<i>Type of Living Quarter</i>	<i>Number of households</i>	<i>Percentage</i>
Housing Authority rental estates		
Group A blocks	198 222	48.0
Group B blocks		
Mark I and Mark II estates	64 017	15.5
Mark III estates	26 216	6.3
Mark IV, Mark V and Mark VI estates	98 638	23.9
Housing Society rental estates	25 972	6.3
Total	413 065	100.0

In this analysis, households sharing in private accommodation in either self-contained or non self-contained quarters constitute requirements for additional quarters according to the above criteria. The minimum housing requirements are assessed on this basis: Table 5.10 shows the number of households by tenure, and is pertinent to estimating the numbers requiring additional housing.

Table 5.10 Distribution of domestic households in private housing (including H.A. home ownership estates and institutions) by tenure; 1981

<i>Tenure</i>	<i>Number</i>	<i>Percentage</i>
Owner-occupier	287 810	40.6
Sole tenant	110 079	15.5
Main tenant	47 811	6.7
Sub-tenant	142 877	20.1
Co-tenant	52 879	7.4
Subsidised/Provided by employer	51 658	7.3
Rent free	16 801	2.4
Total	709 915	100.0

Private tenure enters into the calculations of housing requirements in the following way. Owner-occupiers, sole tenants, main tenants – who will occupy whole living quarters after the sub-tenants are separately housed – and households in accommodation subsidised or provided free by an employer, if unshared, are deemed not to require additional housing. Households that need to be separately housed can be classified by tenure, viz:

- (i) all sub-tenants;
- (ii) all co-tenants except those households of 3 or more persons who would become the sole tenants of the existing living quarters when the other co-tenants are rehoused;
- (iii) households with 3 or more members with rent free accommodation or accommodation provided or subsidised by employers and who were sharing a quarter with another household; small-size households sharing a quarter in this type of tenure need not be rehoused.

On the above criteria about 181 000 households in the private sector required housing plus 115 000 households in temporary accommodation and a further 7 000 marine households; this together with 64 000 households in the public sector give a total of 367 000 households.

The number of households that required additional housing has now been identified but the number of living quarters required to house them depends on the number of members in a household and the sharing among small-size households which is considered acceptable by current standards. The current level of sharing where at least one of the households is a one-person household or a two-person household is set out in Table 5.11.

Table 5.11 Percentage distribution of land-based one-person households and two-person households by no. of domestic households sharing the living quarter; 1981

<i>Degree of Sharing</i>	<i>One-person households</i>	<i>Two-person households</i>
	%	%
Not sharing	42.5	61.2
Sharing	57.5	38.8
Two households per quarter	(14.5)	(14.1)
Three households per quarter	(11.7)	(10.1)
Four or more households per quarter	(31.3)	(14.6)
Total	100.0	100.0

In estimating minimum housing requirements among households in the private and temporary housing some assumptions have to be made. In the light of the census findings, it is assumed that one living quarter will accommodate 3 one-person households, or 2 two-person households, or 1 three-or-more-person household. Furthermore, in the public sector the current practice is that single person in Mark I/II estates would be given new flats in twos or threes; it is therefore assumed that an additional quarter would be needed for every 3 one-person households. These assumptions are applied to the data in Table 5.12 to provide the estimates of the requirement for additional permanent housing – the additional requirements are given at the foot of the table.

Table 5.12 Distribution of households requiring additional housing by broad type of living quarter, tenure, household size and the additional housing requirements

<i>Broad Type of Living Quarter and Tenure</i>	<i>Household Size</i>			<i>Total</i>
	<i>One-person household</i>	<i>Two-person household</i>	<i>Three-or-more-person household</i>	
	<i>(no. of households)</i>			
<i>Households requiring additional housing</i>				
Public				
Mark I and Mark II estates	9 476	10 987	43 554	64 017
Private				
Sub-tenants	59 927	40 972	41 978	142 877
Co-tenants	17 483	12 666	4 240	34 389
Rent free and accommodation provided or subsidised by employer	—	—	3 689	3 689
Temporary and marine	23 227	21 031	77 500	121 758
Total	110 113	85 656	170 961	366 730
	<i>(no. of living quarters)</i>			
<i>Additional housing requirements</i>				
Households currently in public housing	3 159	10 987	43 554	57 700
Households currently in private, temporary and marine housing	33 546	37 335	127 407	198 288
Total	36 705	48 322	170 961	255 988

The rounded up total of 260 000 living quarters required to meet minimum requirements is, of course, a rough estimate, albeit a useful one. Some may regard it as too low since some quarters regarded as acceptable housing according to the set criteria may be considered as overcrowded or sharing among small-size households may not be considered acceptable.

The figures of additional housing requirements in Table 5.12 throw some light, but not sufficient, on the type of quarters that are needed. The type of housing desired depends upon taste, household size and income. Satisfying taste is more a luxury of the better off. For most households the size of household and income are the determining factors. No attempt has been made in this report to estimate the detailed breakdown of the type of housing required.

Future Housing Requirements

The increase in the total number of living quarters required in the future will be largely determined by the formation of new households and the increase in incomes will have important bearing on the type of quarters required; this was referred to earlier under the heading 'Headships and Households'. Table 5.13 gives the number and distribution of households for 1981 and as projected for mid-1986.

Table 5.13 Number of domestic households by household size; 1981-1986

<i>Household Size</i>	<i>1981</i>	<i>1986 (projected)</i>	<i>Increase 1986-1981</i>
1	189 100	246 900	57 800
2	191 800	277 000	85 200
3 or more	863 800	1 049 000	185 200
Total	1 244 700	1 572 900	328 200

Using the earlier assumption about the sharing of quarters by small-size households, the numbers of living quarters required are given in Table 5.14.

Table 5.14 Number of additional domestic households and living quarters required from 1981 to mid-1986

<i>Household Size</i>	<i>Additional domestic households</i>	<i>Assumed average degree of sharing</i>	<i>Estimated requirement of living quarters</i>
1	57 800	3	19 300
2	85 200	2	42 600
3 or more	185 200	1	185 200
Total	328 200		247 100

It is obvious that if the assumptions on the degree of sharing are relaxed the estimated number of quarters required would increase considerably. However, the above figure of 247 000 quarters is taken to be the bare minimum that are required and that it is feasible to build within the period.

PART C

POPULATION MOVEMENT

Chapter 6

Internal Movement and Characteristics of New Town Population

So far in this report we have only considered population data at the aggregate level. In this chapter, we shall describe the size and characteristics of the population by reference to its location and internal movement. Such data are essential for the planning of various community facilities and services at a sub-territorial or local area level. The following paragraphs will give special attention to the development of the new towns.

Spatial Distribution

With the total population increasing by over a million since 1971, and only a slight increase in reclaimed land during the same period, the population density of Hong Kong reached a new peak in 1981; 4 760 persons per square kilometre as compared with the corresponding figure of 3 750 ten years ago. According to the 1981 Census, the three census districts with the largest population density, Sham Shui Po, Mong Kok and Hung Hom had respectively, 165 000, 161 000 and 120 000 persons per square kilometre. There was a considerable pressure on the demand for land to house the ever increasing population, and it was essential to develop hitherto sparsely populated areas in order to relieve the overcrowding in the old districts and to prevent the conurbation from becoming over populated. In 1981 the density of Hong Kong Island, Kowloon and New Kowloon was 29 000 people per square kilometre, while the corresponding figure for the New Territories was only 1 400.

The 1970's saw a huge development programme in the New Territories. Out of the largely rural expanses of the New Territories the new towns in Tsuen Wan – first developed in the early 1960's, Sha Tin and Tuen Mun emerged as self-contained communities providing housing, schools, shopping, community amenities and industry. Meanwhile the old market towns of Tai Po, Sheung Shui/Fanling, and Yuen Long were being expanded, modernised, and provided with additional infra-structure to meet present-day needs. A seventh new town in Junk Bay is being planned. The new town scheme has the objectives of alleviating the high density in the urban areas, providing an increasing population with better housing and an improved living environment, and attracting industry to new areas.

This massive urbanisation programme has had a significant effect on the geographical distribution of the population. Table 6.1 shows that proportionally more people moved from the conurbation of Hong Kong Island, Kowloon and New Kowloon to the new towns.

Table 6.1 Distribution of population by broad census area; 1961, 1971 and 1981

<i>Broad Census Area</i>	<i>1961</i>	<i>1971</i>	<i>1981</i>	<i>1961</i>	<i>1971</i>	<i>1981</i>
	<i>('000)</i>	<i>('000)</i>	<i>('000)</i>	<i>%</i>	<i>%</i>	<i>%</i>
Hong Kong Island	1 005	996	1 184	32	25	24
Kowloon	725	716	799	23	18	16
New Kowloon	853	1 469	1 651	27	37	33
New Territories	410	676	1 303	13	17	26
New towns	(N.A.)	(395)	(939)	(N.A.)	(10)	(19)
Other areas	(N.A.)	(280)	(364)	(N.A.)	(7)	(7)
Marine	137	80	50	4	2	1
Total	3 130	3 937	4 987	100	100	100

Note: Figures may not add up to total because of rounding.

As a result of people moving out of the older urban areas, the population in the conurbation of Hong Kong Island, Kowloon and New Kowloon grew at a lower annual rate than the corresponding figure for the whole of Hong Kong. There was even a loss of population in a number of districts – between 1976 and 1981 Kowloon City and Wong Tai Sin, Kwun Tong, and Cheung Sha Wan recorded a net loss of about 47 000, 18 000 and 8 000 persons respectively. This was surprising in view of the large increase in the overall population during this short period.

Table 6.2 Average annual growth rate of population by broad census area; 1961–1981

<i>Broad Census Area</i>	<i>Annual Growth Rate</i>	
	<i>1961–1971</i>	<i>1971–1981</i>
	<i>%</i>	<i>%</i>
Hong Kong Island, Kowloon and New Kowloon	2.1	1.3
New Territories	5.1	6.8
New towns	N.A.	9.0
Other areas	N.A.	2.6
Marine	-5.2	-4.6
Total	2.3	2.4

Natural increase and net migration, partly offset by the movement of population into the new towns, resulted in a moderate increase of the population density in the conurbation of Hong Kong Island, Kowloon and New Kowloon from 26 000 persons per square kilometre in 1971 to 29 000 in 1981; this overall density figure should be carefully interpreted since the conurbation covers a large area in which there is a wide range of different population concentrations.

Internal Movement

Data from the population censuses provide a basis for evaluating the progress of new town development, and give an indication of the extent to which people have been willing to change their usual place of residence and settle into the new towns. The data also provide information on the effects of internal movement on the social and demographic characteristics of the local population. To study the scale and direction of internal movement, the 1981 Census included a question on the permanent address of a person five years ago. In the 1976 By-census, the same question was asked of the head of domestic households but in 1981 this was extended to cover all persons aged 5 and over. If it was established that the person's permanent address five years ago was different from his present one, then he had moved within the 5-year period. Movement can be classified into movements occurring (i) within the census districts, (ii) between census districts of the same census area, (iii) between census areas or (iv) from overseas to Hong Kong. This chapter is mainly concerned with movement between census districts or areas, that is, categories (ii) and (iii), and the next chapter on immigrant characteristics is concerned with (iv).

The 'place of residence five years ago' approach for studying internal movement was adopted because it is simple and specific, and it provides data on total movement during a specified time interval without having to obtain and analyse complex flow data such as might result in a movement history of individual persons. Note that it does not cover multiple movements or circulatory movements during the five-year period. Also, since no questions were asked on the characteristics of the persons before they moved, the analysis is by reference to their characteristics in 1981.

Table 6.3 Distribution of population who moved from one census district to another within Hong Kong during 1976–1981 by area of origin and area of destination

<i>Area of Origin</i>	<i>Area of Destination</i>				<i>Total</i>
	<i>Hong Kong Island, Kowloon and New Kowloon</i>	<i>New towns</i>	<i>Other areas</i>	<i>Marine</i>	
Hong Kong Island, Kowloon and New Kowloon	474 756 (58.9%)	192 408 (23.9%)	19 115 (2.4%)	—	686 279 (85.2%)
New Territories					
New towns	36 025 (4.5%)	21 221 (2.6%)	9 373 (1.2%)	—	66 619 (8.3%)
Other areas	15 821 (2.0%)	18 597 (2.3%)	2 748 (0.3%)	—	37 166 (4.6%)
Marine	9 955 (1.2%)	3 363 (0.4%)	2 748 (0.3%)	—	16 066 (1.9%)
Total	536 557 (66.6%)	235 589 (29.2%)	33 984 (4.2%)	—	806 130 (100.0%)

Table 6.3 above shows that some 806 000 people who were living in Hong Kong in 1976 were recorded as having moved between census districts or between census areas during the past 5 years. This represents almost a fifth of the population aged 5 and over who were in Hong Kong in 1976 and enumerated in the 1981 Census. The major movement of population was a change of residence across census districts within the conurbation (59%), and a significant shift of population from the conurbation to the new towns (24%). A net gain of 169 000 persons from internal movement was recorded by the new towns, and classified by individual districts as follows:

Table 6.4 In-movement, out-movement and net gain of population in new towns due to internal movements; 1976–1981

<i>New Town</i>	<i>In-movement (‘000)</i>	<i>Out-movement (‘000)</i>	<i>Net-gain (‘000)</i>	<i>Total population change between 1976 By-census and 1981 Census (‘000)</i>
Tsuen Wan New Town	108	38	+70	+147
Tuen Mun New Town	43	4	+39	+56
Sha Tin New Town	57	5	+52	+70
Yuen Long New Town	11	7	+4	+12
Tai Po New Town	10	5	+5	+10
Sheung Shui/Fanling New Town	6	8	-2	+4
Total	236	67	+169	+299

Note: Figures may not add up to total because of rounding.

For comparisons between districts three sets of rates – the in-movement, the out-movement and the net-movement rates – are usually calculated to take account of the variations in the population size in different districts. These rates are obtained by dividing, respectively, the number of in-movements, out-movements, and net gains in Table 6.4 above by an ‘average’ population figure for the district; this average population which represents the ‘population at risk’ of moving during the period 1976–1981 is calculated by taking the average of the population enumerated in the district at the 1981 Census and the population that would have been there had no internal movement occurred in the specified interval (see footnote). The rates as given in Table 6.5 below can illustrate the position in relation to the new towns as compared to the old urban areas.

Table 6.5 In-movement, out-movement and net-movement rates (per 1 000 population*) by conurbation and new towns; 1981

<i>Conurbation/New Town</i>	<i>Rate per 1 000 Population*</i>		
	<i>In-movement rate</i>	<i>Out-movement rate</i>	<i>Net-movement rate</i>
Hong Kong Island, Kowloon and New Kowloon	172	220	-48
Tsuen Wan New Town	229	80	+149
Sha Tin New Town	866	69	+797
Tuen Mun New Town	876	83	+793
Yuen Long New Town	279	181	+98
Tai Po New Town	327	163	+164
Sheung Shui/Fanling New Town	156	198	-42

* Excluding persons aged under 5 and persons in collective households such as institutions, hostels, etc.

As a result of internal movement, and to a lesser extent movement from outside Hong Kong, there was a high proportion of the population in new towns who had moved into the towns between 1976 and 1981, and the figure was particularly high in the two new towns of Sha Tin and Tuen Mun, the main parts of which were developed in the late 1970s. These percentages are, of course, also dependent on the size of the population in the new towns in 1976.

Footnote:

This technique implicitly assumes that the level of internal movement at any point of time is directly proportional to the size of the population and the meaningfulness of the rates depends on whether such proportionate relationships hold. It is not always obvious, why such proportionality should hold between the level of in-movement and the size of population in the district. Further, in areas with a high level of movement the average population calculated from the census figure and the population figure excluding the effect of movement will give a less accurate approximation to the average size of the ‘population at risk’ since such movements may not be uniformly distributed over the reference period.

Table 6.6 Percentage distribution of population* aged 5 and over by type of movement in conurbation and new towns; 1981

<i>Type of Movement</i>	<i>Hong Kong Island, Kowloon and New Kowloon</i> %	<i>Tsuen Wan New Town</i> %	<i>Tuen Mun New Town</i> %	<i>Sha Tin New Town</i> %	<i>Other new towns</i> %	<i>All new towns</i> %
Not moved	63.9	55.5	24.0	22.4	54.4	48.8
Moved within the census district	11.5	17.5	11.3	13.9	14.5	16.1
Moved in from other census districts or outside Hong Kong	24.6	27.0	64.7	63.7	31.1	35.1
Total	100.0	100.0	100.0	100.0	100.0	100.0

* Excluding population in collective households such as institutions, hostels, etc. who were in Hong Kong 5 years ago.

Population in New Towns

The new towns have been developed as reasonably self-contained units and aim to provide a full range of community services and facilities such as schools, transport, medical services and so on. Data from the population census provide the essential information for assessing the demand for services in each district. In this section, we discuss the characteristics of the population in three major new towns – Tsuen Wan, Sha Tin and Tuen Mun, with emphasis on their differences from the conurbation of Hong Kong Island, Kowloon and New Kowloon, and the implications of such differences. The other new towns are not included mainly because their populations were relatively small in 1981, although they are expected to increase substantially when the planned developments have been completed.

Among the three new towns Tsuen Wan was the first developed. Its emergence as a new town started in the early 1960's when Government took the lead in preparing and reclaiming land. The town is planned to accommodate 900 000 persons by the end of the 1980's; in 1981 it had a population of nearly 600 000. The town's expanse has been extended to include Tsing Yi and Sham Tseng with additional land available for residential and commercial development and land intensive industries. The second new town, Sha Tin, is situated to the north-east of Kowloon and is separated from the main urban area by a single range of hills cut by two road tunnels and a rail tunnel, each of about 1.6 kilometres in length. In 1981, it was still only at its early stage of development but population had already increased sharply from 39 000 in 1976 to 109 000. The development plan for the new town covers an area of over 3 000 hectares and it is aimed at accommodating over 700 000 people by the end of the 1980's. Tuen Mun is situated in the western part of the New Territories mainland about 32 kilometres from the southern tip of Kowloon. The development proposals envisage a new town of about 1 200 hectares and an ultimate population of more than 500 000 persons. Its population was 90 000 in 1981.

Table 6.7 Percentage distribution of population in major new towns and conurbation by broad type of living quarter; 1981

<i>Broad Type of Living Quarter</i>	<i>New Towns</i>			<i>Hong Kong Island, Kowloon and New Kowloon</i> %
	<i>Tsuen Wan</i> %	<i>Sha Tin</i> %	<i>Tuen Mun</i> %	
Public and aided housing	68.7	48.9	71.8	37.7
Private housing (including Housing Authority home ownership estates and institutions)	24.8	38.0	21.9	56.2
Temporary housing	6.5	13.1	6.3	6.1
Total	100.0	100.0	100.0	100.0

Table 6.7 above shows the percentage of population by broad type of living quarter in the new towns and the conurbation. One of the main objectives of new town development is to provide much needed land for the construction of public housing estates in order to alleviate the shortage of adequate housing. With Government taking the lead in the formation of land and the building of housing estates, it is not surprising to find the new towns dominated by public housing tenants. Since the social and economic characteristics of persons living in public housing are quite different from those in private quarters, – see summary tables at the end of this report – this predominance of public housing could affect the socio-economic outlook of the new town population as a whole.

An important characteristic of the new towns' population is the higher proportion of children aged under 15 as compared with the urban complex. Among the three new towns Tuen Mun has an even higher proportion of children under 15.

Table 6.8 Percentage distribution of population in major new towns and conurbation by age; 1981

Age Group	New Towns			Hong Kong Island, Kowloon and New Kowloon %
	Tsuen Wan %	Sha Tin %	Tuen Mun %	
0-14	29.2	29.5	38.1	22.9
15-34	39.2	41.0	37.7	41.4
35-64	26.7	24.0	20.1	28.9
65 and over	4.9	5.5	4.1	6.8

This predominance of young persons in the new towns has important implications for the planning of educational facilities. It points to a need for more school places per capita in the new towns than would be the case if the overall territory-wide standard is applied. Although local demand for schooling can to a certain extent be met by substitution of school places in the urban areas, such substitution is certainly not desirable for kindergarten and primary students. Table 6.9 below shows the school attendance ratios of the new towns' population as compared with the conurbation.

Table 6.9 Age-sex-specific school attendance ratios by age and sex in major new towns and conurbation; 1981

Age Group	New Towns			Hong Kong Island, Kowloon and New Kowloon %
	Tsuen Wan %	Sha Tin %	Tuen Mun %	
<i>Male</i>				
3- 5	84	86	83	86
6-11	99	99	99	99
12-14	94	95	89	93
15-16	72	76	54	75
<i>Female</i>				
3- 5	82	87	83	85
6-11	99	99	99	99
12-14	95	95	90	93
15-16	74	82	66	78

Planning for the future has to take account of the changing age and sex structures. The 1981 Census data provide benchmark data for future projection. Further, to assess the effect of future developments it is pertinent to study the effect of internal movement on the age distribution of the new towns' population. Table 6.10 below compares the age composition of those who moved into the new towns between 1976 and 1981 with those who had been living in the district for at least 5 years.

Table 6.10 Percentage distribution of population aged 5 and over in major new towns by age and whether moved into the census district between 1976 and 1981

Age Group	New Towns					
	Tsuen Wan		Sha Tin		Tuen Mun	
	Moved %	Not moved %	Moved %	Not moved %	Moved %	Not moved %
5-14	21.1	24.1	22.1	20.8	29.1	24.5
15-24	24.2	25.7	22.8	24.7	12.5	25.4
25-64	50.4	44.7	50.4	47.2	55.5	42.2
65 and over	4.3	5.5	4.7	7.3	2.9	7.9
Total	100.0	100.0	100.0	100.0	100.0	100.0

Among the moved, Tuen Mun had a relatively high proportion of young people and a low proportion of the elderly, reflecting that those who took up accommodation there were younger families as compared against Sha Tin and Tsuen Wan.

Another important consideration in the planning of new town development is the provision of employment opportunities. The new towns have been planned on the basis of balanced development, aiming at providing sufficient work opportunities for those living there. In assessing the demand for employment opportunities in the new towns and the types of jobs required the social and economic characteristics of the population should be considered:

- (a) People in the new towns, in Tuen Mun in particular have lower educational attainment than their counterparts in Hong Kong Island, Kowloon and New Kowloon.

Table 6.11 Percentage distribution of population aged 15 and over in major new towns and conurbation by educational attainment; 1981

<i>Educational Attainment</i>	<i>New Towns</i>			<i>Hong Kong Island, Kowloon and New Kowloon</i>
	<i>Tsuen Wan</i>	<i>Sha Tin</i>	<i>Tuen Mun</i>	
	%	%	%	%
No schooling/Kindergarten	16	15	17	15
Primary	38	35	45	33
Secondary/Matriculation	42	44	36	45
Post-secondary/University	4	6	2	8

Note: Figures may not add up to total because of rounding.

- (b) Large variations in the labour force participation rates exist between the new towns.

Table 6.12 Age-sex-specific labour force participation rates by major new towns and conurbation; 1981

<i>Age Group</i>	<i>New Towns</i>			<i>Hong Kong Island, Kowloon and New Kowloon</i>
	<i>Tsuen Wan</i>	<i>Sha Tin</i>	<i>Tuen Mun</i>	
	%	%	%	%
<i>Male</i>				
15-19	47.7	42.8	54.1	43.7
20-24	93.7	91.0	89.2	90.7
25-34	99.3	98.8	95.6	98.6
35-44	99.3	98.8	95.2	98.9
45-54	97.0	94.4	89.5	96.4
55 and over	60.7	57.4	52.8	61.0
<i>Female</i>				
15-19	47.2	40.2	50.7	40.2
20-24	82.4	75.4	61.0	81.0
25-34	54.6	48.1	33.4	59.3
35-44	58.6	47.6	53.7	52.7
45-54	52.5	42.3	51.0	45.5
55 and over	25.9	20.7	21.5	25.2

- (c) Compared with the conurbation, there are proportionately more persons in the new towns taking up jobs that require lower levels of skill.

Table 6.13 Percentage distribution of working population by occupation in major new towns and conurbation; 1981

Occupation	New Towns			Hong Kong Island, Kowloon and New Kowloon
	Tsuen Wan %	Sha Tin %	Tuen Mun %	%
Professional, technical and related workers	3.2	6.2	2.8	6.7
Administrative and managerial workers	1.0	2.6	0.4	3.2
Clerical and related workers	8.4	12.0	4.7	13.9
Sales workers	7.8	8.9	8.8	10.9
Service workers	12.7	17.3	17.1	16.2
Agricultural workers and fisherfolk	0.4	1.2	1.4	0.3
Production and related workers, transport equipment operators and labourers	66.2	51.3	64.0	48.1
Armed forces and unclassifiable	0.3	0.5	0.8	0.7

(d) Whereas workers living in the older new towns such as Tsuen Wan on the whole earned less than their counterparts in the conurbation, this gap is not apparent in the more modern towns of Sha Tin and Tuen Mun.

Table 6.14 Percentage distribution of working population* by income from main employment in major new towns and conurbation; 1981

Income from Main Employment (HK\$)	New Towns			Hong Kong Island, Kowloon and New Kowloon
	Tsuen Wan %	Sha Tin %	Tuen Mun %	%
Under 1,000	20.6	16.4	21.2	17.5
1,000-1,499	34.0	28.1	26.6	30.4
1,500-1,999	19.7	18.7	18.3	18.9
2,000-2,999	17.9	23.0	26.2	18.3
3,000 and over	7.8	13.8	7.7	14.9
Median income (HK\$)	1,429	1,648	1,560	1,556

* Excluding unpaid workers.

Forecast of Population Distribution

The movement of population away from old developed areas into the new towns will entail the provision of new and extended community services and transport and this needs careful study and planning. A necessary start in such planning is a forecast of the locational distribution of population in 1986 and 1991, i.e. the short term and medium term forecast. The latest forecast made by Government is based on the detailed territorial population projection given in Chapter 1 and the projection of headships and households in Chapter 4. In addition, statistics derived from the census tabulations on type of living quarter, degree of sharing, household size and the geographical distribution of households and population are required. Part of this information is given in Table 6.15.

Table 6.15 Average household size, degree of sharing and number of occupants by selected types of living quarter in major new towns and conurbation; 1981

Type of Living Quarter	New Towns			Hong Kong Island, Kowloon and New Kowloon
	Tsuen Wan	Sha Tin	Tuen Mun	
A. Average degree of sharing				
Self-contained Housing Authority rental blocks (Group A)	1.0	1.0	1.0	1.0
Self-contained private housing blocks	1.5	1.1	1.2	1.4
Housing Authority home ownership estates	1.0	1.0	—	1.0
Modern houses	1.5	1.1	1.3	1.1
Modern village houses	1.6	1.1	1.5	—

Type of Living Quarter	New Towns			Hong Kong Island, Kowloon and New Kowloon
	Tsuen Wan	Sha Tin	Tuen Mun	
B. Average household size				
Self-contained Housing Authority rental blocks (Group A)	5.1	5.0	4.3	5.1
Self-contained private housing blocks	3.4	3.8	3.6	3.5
Housing Authority home ownership estates	4.1	4.2	—	4.4
Modern houses	3.7	3.5	2.3	4.3
Modern village houses	4.1	3.9	3.3	—
C. Average number of occupants per living quarter				
Self-contained Housing Authority rental blocks (Group A)	5.2	5.0	4.3	5.1
Self-contained private housing blocks	5.1	4.0	4.3	4.9
Housing Authority home ownership estates	4.3	4.1	—	4.4
Modern houses	5.6	4.0	3.6	4.7
Modern village houses	6.6	4.5	5.5	—

Projecting the locational distribution of the population is a hazardous and daunting task. It requires heroic assumptions, good judgement and common sense. One basic assumption used was that population changes in urbanised areas (i.e. the main urban areas and new towns) would be led or largely determined by the housing developments undertaken by the public and private sectors. Factors taken into account in the projection included the scale and geographical distribution of public housing development programmes, the sizes of households occupying such housing, the overall levels of production in the private sector, the geographic distribution of private housing and so on. The steps taken in estimating the locational distribution of the population in 1986 and 1991 are as follows:

- take as benchmarks the population projections for Hong Kong for 1986 and 1991 and deduct the projected population in these years living in rural areas, marine districts, institutions, and transients; the resultant figures give the overall total in 1986 and 1991 living in urbanised areas including the new towns;
- determine the size and locational distribution of the urban population in 1986 and 1991 which will be occupying the existing, 1981, stock of adequate housing; the principal data required for this calculation include the 1981 Census figures on the locational distribution of households in adequate housing and the projected trends of declining household size;
- determine the size and location of the population which will occupy flats to be built under the planned building programmes of the public sector and postulate the number of flats, by location, to be constructed by the private sector, having regard to past trends, planned land development programme and future development opportunities; the principal data used as a basis for this calculation include the 1981 Census figures on household size by districts and the projected trends of declining household size;
- sum the population derived from (b) and (c) above and subtract from (a) to give the population in urbanised areas which will be accommodated in inadequate housing. This figure is then distributed by location using the locational distribution of the inadequately housed as given in the 1981 Census data;
- the consolidation of the figures in steps, (b), (c) and (d) will give the population by size and location in 1986 and 1991 in the urbanised areas;
- forecast the locational distribution of the rural population as determined in (a);
- forecast the locational distribution of the marine population and population in institutions and transients as determined in (a).

It is not possible to present here the comprehensive set of census data required for producing these forecasts. To forecast the differential changes in the number of occupants in each type of living quarter between districts, the age-sex structure, headship rates, etc. with respect to different types of housing must be determined for each district. Moreover, the historical information on internal movements into the new towns over the five years also helps to determine the future size of population occupying no living quarters. Most of such relevant data can be found in the summary tables at the end of this report. Finally, the locational distributions of the population in the census years 1961, 1971 and 1981 given in Table 6.1 are particularly pertinent to this analysis.

Small Area Statistics

The 1981 Census provides statistics at different levels of detail for tertiary units and smaller areas. Tertiary units are areas delineated for town planning purposes. There are 270 such tertiary planning units, each of which is identified by a three digit code number. In another report of the 1981 Census, the 'Tertiary Planning Unit Tabulations', results are presented by each unit showing the social, economic and demographic characteristics of the population. A sample page is attached below and the tabulations are available from the Government Publication Centre.

MID-LEVELS

TERTIARY PLANNING UNIT: 142

LIVING QUARTERS **TOTAL:** 6 206

TYPE OF LIVING QUARTER

Housing Authority rental blocks	
Self-contained	0
Non self-contained	0
Housing Authority home ownership estates	0
Housing Society rental blocks	0
Private housing blocks	
Self-contained	5 387
Non self-contained	26
Modern houses/Modern village houses	1
Simple stone structures	10
Institutions	204
Other permanent housing	549
Roof-top structures	5
Other temporary housing	24

DOMESTIC HOUSEHOLDS **TOTAL:** 6 271

HOUSEHOLD SIZE

One	1 025
Two	1 173
Three	1 021
Four	1 277
Five	874
Six	475
Seven	222
Eight	109
Nine	51
Ten and over	44

PERSONS **TOTAL:** 23 113

AGE	Male	Female
0- 4	795	786
5- 9	922	831
10-14	815	753
15-19	637	637
20-24	614	1 052
25-29	862	1 271
30-34	1 131	1 437
35-39	795	893
40-44	796	746
45-49	748	710
50-54	616	686
55-59	529	742
60-64	397	723
65 and over	776	1 413
Total	10 433	12 680

DOMESTIC HOUSEHOLDS **TOTAL (ESTIMATED):** 6 376 **TOTAL (ENUMERATED):** 6 271

HOUSEHOLD COMPOSITION

One person	1 185
One unextended nuclear family	3 625
One vertically extended nuclear family	740
One horizontally extended nuclear family	103
Two or more nuclear families	344
Related persons forming no nuclear family	172
Unrelated persons	207

HOUSEHOLD TENURE

Owner	2 758
Sole tenant	1 657
Main tenant	99
Sub-tenant	245
Co-tenant	230
Rent free	149
Provided/Subsidised by employer	1 238

HOUSEHOLD RENT PER MONTH (IN HK\$)

Rent free	3 582
Under 100	69
100- 199	144
200- 299	90
300- 399	161
400- 599	251
600- 799	224
800- 999	293
1 000-1 499	455
1 500-1 999	199
2 000-2 499	149
2 500-2 999	147
3 000-3 499	76
3 500-3 999	83
4 000-4 499	48
4 500 and over	405

HOUSEHOLD INCOME PER MONTH (IN HK\$)

Under 400	107
400- 599	69
600- 799	99
800- 999	61
1 000-1 499	225
1 500-1 999	205
2 000-2 499	253
2 500-2 999	212
3 000-3 999	445
4 000-4 999	417
5 000-5 999	433
6 000-7 999	612
8 000-9 999	522
10 000 and over	2 716

PERSONS	TOTAL (ESTIMATED):	22 902	TOTAL (ENUMERATED):	23 113
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MARITAL STATUS

Single	10 696
Married	10 788
Widowed	1 250
Divorced/Separated	168

PLACE OF BIRTH

Hong Kong	11 682
China	6 691
Countries in South East Asia	963
United Kingdom	1 182
USA	376
Other countries	2 008

PLACE OF ORIGIN

Hong Kong	236
Guangzhou, Macao and adjacent places	10 114
Siyi	3 346
Chaozhou	1 230
Elsewhere in Guangdong	866
Elsewhere in China	1 985
Countries in South East Asia	771
United Kingdom	1 560
USA	336
Other countries	2 458

EDUCATIONAL ATTAINMENT

No schooling/Kindergarten	3 815
Primary	4 124
Lower secondary	2 177
Upper secondary ¹	5 612
Matriculation	1 563
Post-secondary ²	1 078
Polytechnic/Technical Institute	551
University	3 982

FIELD OF EDUCATION

General	14 446
Arts and social science	1 649
Pure science	327
Education	532
Business, commercial and computer studies	1 225
Medical and health related studies	718
Architecture and construction engineering	324
Mechanical, electrical, electronic and marine engineering	278
Textile, design and other industrial technology	97
Transport and other vocational studies	481
No schooling	2 825

HOURS OF WORK PER WEEK

15-24	238
25-34	476
35-44	3 274
45-54	3 064
55-64	1 360
65-74	552
75 and over	603
On leave and not applicable ³	1 905
Unemployed and economically inactive persons ⁴	11 430

ACTIVITY STATUS

Self-employed	287
Employers	1 373
Employees and outworkers	9 464
Unpaid workers	71
On leave or industrial dispute	235
Student workers	42
Unemployed persons	188
Home-makers	3 863
Full-time students	5 024
Of independent means	40
Retired persons	953
Others	1 362

OCCUPATION

Professional, technical and related workers	2 890
Administrative and managerial workers	2 088
Clerical and related workers	2 038
Sales workers	1 216
Service workers	2 272
Agricultural, animal husbandry and forestry workers and fishermen	30
Production and related workers, transport equipment operators and labourers	956
Armed forces and unclassifiable	110
First-time job-seekers and economically inactive persons ⁴	11 302

INDUSTRY

Agriculture and fishing	5
Mining and quarrying	11
Manufacturing	
Textile and wearing apparel	391
Others	1 334
Electricity, gas and water	25
Construction	343
Wholesale and retail trade, restaurants and hotels	1 891
Transport, storage and communication	648
Financing, insurance, real estate and business services	2 092
Services	4 539
Unclassifiable	321
First-time job-seekers and economically inactive persons ⁴	11 302

INCOME FROM MAIN EMPLOYMENT PER MONTH (IN HK\$)

Under 400	142
400- 599	181
600- 799	234
800- 999	417
1 000-1 499	1 957
1 500-1 999	1 103
2 000-2 499	942
2 500-2 999	614
3 000-3 999	1 090
4 000-4 999	843
5 000-5 999	584
6 000-7 999	752
8 000-9 999	533
10 000 and over	2 009
Unpaid workers	71
Unemployed and economically inactive persons ⁴	11 430

1 Craft level courses in technical institutes are grouped under upper secondary level.

2 Includes post-secondary colleges, colleges of education, technical teachers' college and school of nursing.

3 Includes farmers and fishermen, employers and self-employed persons.

4 Includes all persons aged under 15.

The information in these tables may serve different uses. As well as providing information for planning of Government services at local level, the data provide information on the social and economic background of these small area population which are useful in market and business research. For example, before a businessman establishes an office, shop or services within a certain tertiary planning unit, he may need to know data on type of living quarter, the population by size, sex and age, and household size and household income.

Another level of geographical areas is the street block in the urban areas and new towns, and the village clusters in the rural areas of the New Territories. The information published is given in the 'Street Block/Village Cluster Tabulations' showing the characteristics of population. A sample page is attached.

SHAU KEI WAN AND CHAI WAN

TERTIARY PLANNING UNIT: 161

STREET BLOCK: 23

LIVING QUARTERS (STOCK)		113														
Type of Living Quarter		H. Auth. Self-con.	Rental Blk. Non Self-con.	H. Auth. H. O. Est.	H. Society Rental Blk.	Private Housing Blk. Self-con.	Non Self-con.	Mod. Vil. Hse./ Modern Hse.	Simple Stone Structures	Instit.	Other Perm. Housing	Roof-top Structures	Other Temp. Housing			
		0	0	0	0	104	0	0	0	0	8	1	0			
Usual Degree of Sharing		No Domestic Household	One		Two		Three		Four		Five		Six and Over			
		2	73		18		12		3		2		2			
LIVING QUARTERS (ENUMERATED)		112														
Type of Living Quarter		H. Auth. Self-con.	Rental Blk. Non Self-con.	H. Auth. H. O. Est.	H. Society Rental Blk.	Private Housing Blk. Self-con.	Non Self-con.	Mod. Vil. Hse./ Modern Hse.	Simple Stone Structures	Instit.	Other Perm. Housing	Roof-top Structures	Other Temp. Housing			
		0	0	0	0	103	0	0	0	0	8	1	0			
Degree of Sharing		No Domestic Household	One		Two		Three		Four		Five		Six and Over			
		3	74		18		11		2		2		2			
DOMESTIC HOUSEHOLDS		173														
Type of Living Quarter		H. Auth. Self-con.	Rental Blk. Non Self-con.	H. Auth. H. O. Est.	H. Society Rental Blk.	Private Housing Blk. Self-con.	Non Self-con.	Mod. Vil. Hse./ Modern Hse.	Simple Stone Structures	Instit.	Other Perm. Housing	Roof-top Structures	Other Temp. Housing			
		0	0	0	0	167	0	0	0	0	5	1	0			
Household Size		One	Two	Three	Four	Five	Six	Seven	Eight	Nine	Ten and Over					
		30	45	30	23	19	14	3	3	5	1					
PERSONS		Male: 320					Female: 266					Total: 586				
Type of Living Quarter		H. Auth. Self-con.	Rental Blk. Non Self-con.	H. Auth. H. O. Est.	H. Society Rental Blk.	Private Housing Blk. Self-con.	Non Self-con.	Mod. Vil. Hse./ Modern Hse.	Simple Stone Structures	Instit.	Other Perm. Housing	Roof-top Structures	Other Temp. Housing			
		0	0	0	0	567	0	0	0	0	14	5	0			
Age and Sex		0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65 and Over	
M		31	23	26	23	34	41	41	25	15	8	15	13	10	15	
F		26	19	13	19	36	43	26	15	10	7	12	10	12	18	
T		57	42	39	42	70	84	67	40	25	15	27	23	22	33	

The 'Street Block/Village Cluster Tabulations' are useful in planning services which require a more detailed study of the population distribution than at tertiary unit level. Such services may cover the deployment of policemen on patrol duty, the setting up of rural village mobile library services, etc. The data by street block and village cluster can be amalgamated for any number of blocks, etc. to provide flexible units which are useful in the formation of traffic zones, police sub-divisions, and administrative districts.

Chapter 7

Implications of Net Inward Migration

This chapter discusses some of the implications of inter-regional migration for Hong Kong with the emphasis on the period 1976 to 1981.

Migration and Population Growth

Population growth is the product of two forces: natural increase and net migration, the balance of inward and outward migration. Net migration was the dominant factor in the rapid growth of the population before World War II. In the post-war decades, though natural increase played an increasingly important role in determining the growth of the population, net migration was still considerable.

Table 7.1 Comparison of actual population with hypothetical population; 1951–1981

<i>Mid-year</i>	<i>Actual population (with migration)</i>	<i>Hypothetical population (without migration)</i>	<i>Cumulative effect of migration 1951–1981 (including off-spring of migrants)</i>
1951	2 015 300	—	—
1961	3 168 100	2 647 000	521 100
1971	4 045 300	3 286 500	758 800
1976	4 443 800	3 526 700	917 100
1981	5 133 800	3 748 700	1 385 100

There have been three major migration flows from China during the past thirty years. Net migration was about 400 000 during the 1950s, some 120 000 during the 1960s and another 500 000 during the 1970s. The inflow between 1978 and 1980 alone was nearly 400 000 comprising almost equal numbers of legal and illegal immigrants. As a result, the total population increased from about 2 million in 1951 to 5.13 million in 1981. Of the total increase of 3.12 million, net inward migration was estimated to be 1.39 million: net migration includes migrants entering Hong Kong in 1951 or after and the off-spring of the female immigrants.

The Age-sex Profile of Immigrants, 1976–1981

Table 7.2 Percentage distribution of immigrants by age and sex; mid-1976 to mid-1981

<i>Age Group</i>	<i>Legal Immigrant</i>			<i>Illegal Immigrant</i>			<i>Local Population*</i>		
	<i>Male</i>	<i>Female</i>	<i>Total</i>	<i>Male</i>	<i>Female</i>	<i>Total</i>	<i>Male</i>	<i>Female</i>	<i>Total</i>
0–14	15.0	12.6	27.6	2.4	1.5	3.9	13.3	12.5	25.8
15–34	19.1	18.0	37.1	69.9	21.0	90.9	20.3	19.1	39.4
35–54	12.7	13.3	26.0	3.4	1.2	4.6	10.6	9.1	19.7
55 and over	2.4	6.9	9.3	0.3	0.3	0.6	6.8	8.3	15.1
Total	49.2	50.8	100.0	76.0	24.0	100.0	51.0	49.0	100.0

* Mid-year estimates.

The age-sex structure of legal immigrants as a whole did not differ much from that of the local population; but that of illegal immigrants did. The main features of the age-sex structure of illegal immigrants were:

- a predominance of males: 76% males, 24% females;
- a large proportion of male immigrants in the age group 15 to 34; 70% of all illegal immigrants and 90% of the males;
- a small proportion of children under 15, 4%, and of the old, less than 1%.

Because of the imbalance in the age and sex structure of illegal immigrants, and the fact their number was about the same as that of legal immigrants, the combined age-sex distribution was still very abnormal when compared with that of the local population.

Table 7.3 Percentage distribution of immigrants by marital status and sex; mid-1976 to mid-1981

Age Group	Never Married		Married		Total	
	Male	Female	Male	Female	Male	Female
	%	%	%	%	%	%
0-14	9.6	7.9	—	—	9.6	7.9
15-34	33.5	12.5	7.2	6.7	40.7	19.2
35-54	0.9	0.2	7.9	7.9	8.8	8.1
55 and over	0.1	0.1	1.5	4.0	1.6	4.1
Total	44.1	20.7	16.6	18.6	60.7	39.3

Note: The percentage distribution in this table refers to the marital status of migrants at the time of arrival.

Table 7.3 has several points of interest. For every married male in the age group 15 to 34 there were between 4 and 5 single male immigrants, and for every married female in the age group there were about 2 single female immigrants. Married males equalled the number of married females in the age group 35 to 54, and married females exceeded the number of males in the oldest age group by nearly 3 to 1.

The age-sex selectivity of immigration has the effect of decreasing the average age of the population and increasing the proportion of males over females. According to the 1981 Census, the median age of the population was 26, and this would have been 26.4 had there been no immigration during the period 1976 to 1981. Similarly, the sex ratio of the population would have been 1 048 males per 1 000 females instead of 1 093.

Socio-economic Characteristics of Immigrants

Housing

Table 7.4 Percentage distribution of local population and migrant population by broad type of living quarter; 1981

Broad Type of Living Quarter	Overall total %	1981 local population %	Migrant Population by Year of Arrival		
			1976-1980* %	1976 %	1980* %
Public and aided housing	38.9	40.9	6.3	10.8	7.0
Private housing	52.6	51.6	69.0	64.1	72.0
Temporary housing	8.5	7.5	24.7	25.1	21.0

* Including those migrants who entered Hong Kong during Jan.-Mar. 1981.

The 1981 Census contained some findings on the social and economic condition of the immigrant population. It established that immigrants in general had a poorer standard of housing. About 25% of them were found in temporary housing, compared with 7.5% for the local population. Though about 6% of immigrants were in public and aided housing, the majority 69% were in private housing.

Education

Table 7.5 Percentage of local population and migrant population studying full-time by age group; 1981

Age Group	Overall total %	1981 local population %	Migrant Population by Year of Arrival		
			1976-1980* %	1976 %	1980* %
6-11	98.5	98.6	96.7	99.1	92.1
12-14	92.0	92.9	75.3	90.4	62.4
15-16	73.7	76.0	28.0	62.2	15.8

* Including those migrants who entered Hong Kong during Jan.-Mar. 1981.

Young immigrants have ample educational opportunities under the present system of nine-year compulsory education. The Census showed that the school attendance ratios for immigrants aged 6 to 16 years varied according to the length of time they had been in Hong Kong, the longer the duration the higher the attendance ratios. Except for the age group 6 to 11, the proportion of young immigrants attending school was much lower than that of the local population of the same age; the difference was especially marked for those aged 15 to 16, 28% as compared with 76%.

Manpower

Table 7.6 Labour force participation rates of local population and migrant population by broad age group and sex; 1981

Age Group	Overall total %	1981 local population %	Migrant Population by Year of Arrival		
			1976-1980*	1976	1980*
			%	%	%
<i>Male</i>					
15-19	45.2	41.4	88.1	54.9	93.7
20-34	95.4	95.0	98.8	97.2	98.5
35-64	91.8	91.6	96.3	95.4	94.2
<i>Female</i>					
15-19	42.6	40.1	84.4	64.6	90.7
20-34	66.1	65.6	73.5	64.3	76.6
35-64	45.4	44.4	65.0	67.3	59.6

* Including those migrants who entered Hong Kong during Jan.-Mar. 1981.

For all ages the immigrant population had a higher labour force participation rate than the local population. The difference was particularly marked for both males and females in the age group 15 to 19.

Table 7.7 Unemployment rates of local population and migrant population by sex; 1981

	Overall total %	1981 local population %	Migrant Population by Year of Arrival		
			1976-1980*	1976	1980*
			%	%	%
Male	4.1	4.2	3.5	3.5	3.9
Female	3.7	3.8	3.1	3.2	4.5
Total	4.0	4.0	3.4	3.4	4.1

* Including those migrants who entered Hong Kong during Jan.-Mar. 1981.

The unemployment rate of 3.4% for immigrants is significantly lower than the 4.0% recorded for the local population possibly because immigrants were more willing than local workers to take up jobs requiring lower levels of skill. Indeed a glance at Table 7.8 below shows that 73.9% of immigrants were in production occupations which require little skill and training; the corresponding proportion for the employed local population was 48.4%. The percentage figures for immigrants as compared with local workers were appreciably lower in all other occupations.

Table 7.8 Percentage distribution of employed local population and migrant population by occupation; 1981

<i>Occupation</i>	<i>Overall total %</i>	<i>1981 local population %</i>	<i>Migrant Population by Year of Arrival</i>		
			<i>1976-1980* %</i>	<i>1976 %</i>	<i>1980* %</i>
Professional, technical and related workers	6.0	6.3	2.3	6.2	2.0
Administrative and managerial workers	2.7	2.9	0.6	1.4	0.5
Clerical and related workers	12.2	13.0	3.2	5.0	3.3
Sales workers	10.3	10.7	5.5	5.8	5.3
Service workers	15.6	15.8	13.2	12.4	15.7
Production and related workers, transport equipment operators and labourers	50.4	48.4	73.9	67.1	71.7
Agricultural workers and fisherfolk	2.1	2.2	0.8	1.4	1.0
Others	0.7	0.7	0.5	0.7	0.5

* Including those migrants who entered Hong Kong during Jan.-Mar. 1981.

Table 7.9 Percentage distribution of employed migrant population by occupation, before and after entering Hong Kong; 1981

<i>Occupation</i>	<i>Before Entering Hong Kong %</i>	<i>After Entering Hong Kong: Year of Arrival</i>		
		<i>1976-1980* %</i>	<i>1976 %</i>	<i>1980* %</i>
Professional, technical and related workers, administrative and managerial workers	7.0	2.9	7.6	2.5
Clerical and sales workers	1.8	8.7	10.8	8.6
Production and related workers, transport equipment operators and labourers	13.7	73.9	67.1	71.7
Agricultural workers and fisherfolk	70.0	0.8	1.4	1.0
Others	7.5	13.7	13.1	16.2

* Including those migrants who entered Hong Kong during Jan.-Mar. 1981.

The majority of immigrants had to change to a different occupation after entering Hong Kong. The majority of the employed migrants took up work as production workers, transport operators and labourers, followed by an ill-defined category of other occupations and then clerical and sales. Table 7.9 shows that the distribution of these employed migrants before entry into Hong Kong was quite different from the distribution after entry. Then they were mainly agriculturists and fisherfolk with a much smaller proportion engaged in production, transport and labouring occupations.

There was a larger proportion of professional and technical workers, administrative and managerial workers, clerical workers, and a corresponding smaller proportion of production workers among those immigrants who had been here for a longer period. This suggests that as time passes the difference in the occupational structure between the immigrant and the local population is gradually disappearing.

Table 7.10 Percentage distribution of employed local population and migrant population by industry; 1981

<i>Industry</i>	<i>Overall total %</i>	<i>Local population %</i>	<i>Migrant population %</i>
Manufacturing	41.2	39.8	57.0
Construction	7.7	6.9	16.7
Wholesale and retail trade, restaurants and hotels	19.2	19.5	15.8
Transport, storage and communication	7.5	8.0	2.8
Financing, insurance, real estate and business services	4.8	5.2	0.9
Services	15.6	16.6	4.7
Others	4.0	4.0	2.1

Manufacturing industry had the largest percentage of immigrant workers, 57.0%, followed by construction, 16.7%, and wholesale and retail trade, restaurants and hotels 15.8%.

Immigrant workers were earning less than local workers. According to the Census, the median income from main employment for local workers was \$1,563; but that for immigrant workers \$1,256, probably due to their possessing skills which are not appropriate to their present occupation. Whereas new arrivals only had a median income of \$1,162, those who had been here for five years received \$1,369. This again indicates a tendency for the differences between the immigrant and local population to disappear as the duration since immigration increases.

Social, Economic and Demographic Effects of Migration

Effects on Marriage

Table 7.11 Imbalance in sex composition of local population and total population aged 15–54; mid-1981

Age Group	Local Population			Total Population (with migration)		
	Male	Female	Imbalance	Male	Female	Imbalance
15–24	543 017	521 171	21 846	605 643	554 873	50 770
25–34	412 959	381 454	31 505	491 118	418 899	72 219
35–44	242 525	194 369	48 156	282 200	217 927	64 273
45–54	255 890	235 211	20 679	284 811	244 533	40 278
15–54	1 454 391	1 332 205	122 186	1 663 772	1 436 232	227 540

The influx of immigrants in recent years has increased the imbalance in the sex composition of the population. Even without migration there was a surplus of 122 000 males in the age group 15–54 in 1981. With migration, the surplus of males in this age group increased to 228 000. An analysis has been made of the effects which the imbalance between the sexes at marriageable ages will probably have on the 'marriage market'. If the prevailing marriage rates for single females were applied to single males and an estimate made of the number of males who would get married if there were no shortage of eligible females, then the number of male 'intended' first marriages would be 64 000 more than the number of female 'intended' first marriages over the next five years. This estimate assumes that male immigrants would not get married in the first two years after arrival. The difference between male and female 'intended' first marriages would have been only 36 000 had no migration occurred during the period 1976 to 1981.

Effects on Births

Table 7.12 Age-specific fertility rates of local population, migrant population and total population; 1980

Age Group	Live Births per 1 000 Female Population		
	Local population	Migrant population	Total population
15–19	11.8	20.4	12.4
20–24	79.2	177.9	88.8
25–29	151.2	251.4	161.4
30–34	99.4	151.3	104.4
35–39	34.7	72.0	39.5
40–44	7.0	23.7	8.5
45–49	0.7	3.3	0.8
<i>Total fertility rate (TFR)</i>	1 920	3 500	2 079

Data from the 1981 Census on 'own children' have been used to derive the age-specific fertility rates for immigrants and non-immigrants. The fertility of immigrants is considerably higher than that of non-immigrants; for immigrants in 1980 the TFR was 3 500 births per 1 000 women; and for non-immigrants 1 920. The age-specific fertility rates for immigrants at all age groups were substantially higher than those of non-immigrants.

The immediate or direct impact of the high fertility of immigrants was an extra 20 000 births during the past five years and unless the fertility of immigrants declines sharply in the next 5 years, it is estimated there will be another 64 000 more births by 1986; this estimate relates only to births to immigrant females.

Effects on the Living Environment

The large influx of immigrants in recent years has also affected the living environment. The 1981 Census showed that the density of the metropolitan areas of Hong Kong Island, Kowloon and New Kowloon would have been 27 200 people per square kilometre had there been no migration over the 5-year period, as compared with the 29 500 per square kilometre actually recorded. This effect also applied in the new towns and the rural areas, where the overall density without migration would have been 4 389 people per square kilometre, instead of the 4 760 actually recorded. The effects of immigration on the smaller areas was such that the proportion of tertiary planning units with 100 000 or more people increased from 8.5% to 10.0%.

Another indicator of the deterioration of the environment was the significant increase in the number of people living in areas where the kind of housing was of the 'temporary structure' type. It is estimated that had there been no migration the number of people living in these areas would have been 323 200, whereas the actual figure was 418 500, an increase of nearly 30%.

Effects on the Labour Force

As a result of the large influx of immigrants, who were predominantly young and male, the labour force grew at an average annual rate of 5.6% during the period 1976 to 1981; 50% greater than in the period 1971 to 1976. The labour force gained some 290 000 immigrant workers in the five years, and this accounts for 48% of the total increase in the labour force over this period.

Effects on Social Programmes

The recent immigration has created extra demands for various types of government services, particularly for education and health services, and housing and social welfare.

(i) *Education services*

Recent surveys on immigrants' children conducted by the Education Department indicated that during the two academic years from 1979 to 1980, there were some 11 100 immigrants' children enrolled in primary schools. This is not the total extra demand imposed on the education services. Children born in Hong Kong to immigrant women will, when they reach the age of 6, require primary school places under the present nine-year compulsory education system. About 20 000 extra primary school places will be required by immigrants' children born during the period 1976 to 1981, and this will then be followed by a demand for public secondary education.

(ii) *Medical and health services*

A growing population and rising public expectations in regard to health services was putting increasing pressure on the manpower and resources of the Medical and Health Department. The sudden increase in population in recent years due to immigration has put considerable additional strain on these services. A long lead time is required to develop hospitals and to train personnel, and in the next five years an additional 10 000 hospital beds and 200 consulting rooms need to be provided; about 20% to 25% of these additions are estimated to be the consequence of the large immigration. These services will require a large number of doctors, nurses and para-medical personnel and an expansion of the training and teaching facilities at the universities and the polytechnic.

(iii) *Housing*

Initially, most new arrivals from China have to stay with friends or relatives in private or public housing or in squatter areas, thereby adding to existing problems of overcrowding. The great majority of these immigrants are young and single, and do not create an immediate need for additional housing, but they will generate a demand in the future; a demand greater than would have been the case through normal population growth. If one assumes that their pattern of household formation is the same as that of the local population, the number of new immigrant households by 1986 will be about 138 000. With the existing eligibility criteria for public housing, it is estimated that 46 000 more public housing flats will be required by 1986 to cater for the extra demand of immigrants.

(iv) *Social welfare*

Applications for public assistance by recent arrivals have been relatively few, possibly because of the one-year residence criterion and migrants' ignorance of the scheme. In the longer term, more will be eligible and more will be aware of this and other schemes. Additional expenditure on public assistance, disability and old age allowances will then be incurred. The recent arrival of 20 000 people aged 65 and over will also increase the demand for special services for the elderly; the proportion of the population aged 65 and above has increased from 5.5% in 1976 to 6.6% in 1981.

Vietnamese Refugees in Hong Kong

Table 7.13 Arrival of Vietnamese boat refugees; 1979–1981

<i>Period</i>	<i>Arrival</i>	<i>Daily average</i>
Jan. 1–Jun. 30, 79	58 543	323
Jul. 1–Dec. 31, 79	15 121	82
Jan. 1–Jun. 30, 80	4 986	27
Jul. 1–Dec. 31, 80	6 188	34
Jan. 1–Jun. 30, 81	7 492	41

Hong Kong faced another type of immigration during the period 1979 to 1981, namely the Vietnamese refugees who entered pending permanent resettlement in other countries. Before the Geneva Conference in 1979, the Vietnamese 'boat people' came to Hong Kong at a rate of over 300 per day. Since then, their numbers have been reduced to a low level, but there were still some 13 000 refugees from Vietnam in Hong Kong at the end of October 1981. Since 1979, the Government has spent HK\$117 million on establishing and running refugee camps, and on feeding and transporting refugees. This figure would be very much higher if the costing were to take account of the use of valuable land and the cost of staff. In 1981, the refugees were occupying some 94 000 square metres of urban land on which planned developments had to be delayed.

The large influx of immigrants from 1978 to 1980 imposed considerable strain on a small overcrowded territory like Hong Kong. The effects on Hong Kong's social programmes have been considerable leading to delays and greater expenditure of resources. To prevent a similar immigration flow from recurring in the future, restriction on immigration, particularly illegal immigration was considered urgent and desirable. The abolition of the 'reach-base' policy (see footnote) declared in October 1980 was a decisive and necessary move, to stop the high rate of illegal immigration. Since then, illegal immigration has been largely checked, but legal immigration still remains at a high level, adding about 55 000 people to Hong Kong's population each year.

Footnote:

New legislation was passed by the Hong Kong Legislative Council on 23 October, 1980 to provide for the repatriation of all immigrants entering Hong Kong from China illegally after 23 October, 1980, previously, 'reached-base' illegal immigrants who had evaded capture were allowed to stay.

PART D
CENSUS PROCEDURES

Chapter 8

Taking of the Census

Background

In the previous chapters description of the characteristics of the census data have been discussed. This chapter outlines how the 1981 Census was taken, and describes the methodology of the census. More technical readers will be interested in the sampling design of the 1981 Census presented in the next chapter. The final chapter is an assessment of the quality of census data.

Comprehensive population censuses were conducted in 1961 and 1971 and both undertook a 100% enumeration of the population, asking detailed questions covering a broad spectrum of social, economic and demographic characteristics of the population. To maintain up-to-date information on the population, sample censuses, referred to as by-censuses were carried out in the intercensal years of 1966 and 1976.

Legal Status

The 1981 Census was conducted under the authority of Census and Statistics Orders made by the Governor-in-Council under Section 9 of the Census and Statistics Ordinance 1978 (Chapter 316 of the Laws of Hong Kong). Under this ordinance, it is a legal obligation for the census officers to preserve the confidentiality of individual information, and for members of the public to answer the census questions correctly and accurately to the best of their knowledge.

Timing

The Marine Census was conducted just before the Chinese New Year, from 1 February 1981 to 4 February 1981 and the Land Census during the period 6 March 1981 to 15 March 1981. This timing accords with that of the 1971 Census and thus ensures the comparability of data with previous censuses. The previous decision to use this period for the Land Census took into account such factors as weather and the likelihood of typhoons, and avoidance of major public holidays and festivals when large movements of population took place.

Coverage

The 1981 Census covered the entire population including the marine population, transients, armed forces, and the institutional population. Information was also obtained on the age-sex particulars of those residents who were usual residents and temporarily away from Hong Kong on the census reference date.

Not all persons were asked the same questions. The 1981 Census adopted a two-phase design which comprised a simple 100% headcount by age and sex and relationship to head of household and a detailed 20% sample enumeration of the broad range of social, economic and demographic characteristics of the population.

An exception to the general scheme was made for the marine population. In this case, a 100% full enumeration was taken in order to provide adequate information about the boat people in each harbour district and to facilitate the enumeration process. For transients, defined as those who stayed in Hong Kong for less than 20 days but were present at the census, only a complete headcount by age and sex was required.

Census Content

Specimen questionnaires for both the simple headcount and the detailed enumeration for the Land Census and the Marine Census are given at Appendix 1. The questionnaire can be divided into two parts, namely, personal data and household and living quarter data, with the following questions included in each part:

A. *Personal data*

for the 100% full count:

1. name (for identification)
2. sex
3. year and month of birth
4. relationship to head

- additional questions for the 20% sample:
5. place of birth
 6. place of origin
 7. permanent address 5 years ago
 8. year of arrival in Hong Kong
 9. number of children ever born
 10. marital status
 11. educational attainment
 12. field of education
 13. activity status
 14. hours of work
 15. occupation
 16. industry
 17. secondary occupation
 18. whether seeking more work
 19. earnings from main employment
 20. earnings from other employment
 21. other cash income
 22. type of disablement

B. *Household and living quarter data*

for the 100% full count:

1. type of living quarter
2. type of household
3. usual household size
4. household size on reference night

additional questions for the 20% sample:
(land-based households)

5. type of accommodation
6. tenure
7. rent
8. household composition

(for the marine households, questions on living quarter and housing characteristics were replaced by:

1. type of craft
2. number of engines
3. engine horse-power
4. length of vessel
5. age of vessel
6. availability of land accommodation)

Planning

A population census office consisting of three different sections was set up to prepare for the 1981 Census. The Census Planning Section was responsible for the overall planning and all statistical and professional work related to the operation. Actual field work of the census, including the updating of addresses listing, cutting of enumerator blocks, training and organisation of temporary staff, and supervision of the enumeration was the responsibility of the Census Fieldwork Section. The Census Administration Section had the task of arranging accommodation, recruiting temporary staff and administering the accounts, stores and stationery, printing, and publicity.

Preliminary planning for the 1981 Census started as early as 1977. The Census generally followed the United Nations recommendations for the 1980 round of population censuses and took into account the local requirements. After detailed consultation with users of census data within Government, universities and other interested organisations, a Census Plan was drawn up in November 1978 summarising the proposals for the contents of the questionnaire, the field operational procedures, data processing methods, and staff and financial requirements. The Plan was submitted to and approved by the Governor-in-Council in February 1979.

Census Tests

A Pre-test and a Pilot Census were undertaken early to test the various aspects of the 1981 Census so that any defects in the system could be identified and rectified in time.

The Pre-test was held from 19 July 1979 to 24 July 1979 and covered 3 600 living quarters in three selected districts. Apart from testing the general organisational aspects of the Census, one of its major objectives was to assess the feasibility of using the self-enumeration approach for the simple headcount. Results showed that this method was not practicable since many householders were unable or not willing to complete the forms properly by themselves.

The Pilot Census, which represented a 'dress rehearsal' of the full census system, was conducted one year prior to the main operation. Covering some 25 000 households, the test sample was distributed over 14 different districts specially selected to include a cross-section of the population. Subsequent to the test all aspects of the operation were evaluated and the experience led to many improvements of the census procedure. One area of concern identified in the Pilot Census was the need to improve the quality of operation in respect of coding. It was found that many enumerators committed coding errors, and to tackle this problem, the checking system was reinforced in the main operation.

Field Organisation

The field staff consisted of 1 Chief Census and Survey Officer, 5 Senior Census and Survey Officers, 12 Census and Survey Officers and 44 Assistant Census and Survey Officers. They were responsible for supervising all the temporary staff who were organised by enumeration divisions. Normally, each division comprised a chief enumerator, the division leader; 2 field editors who were responsible for editing the completed questionnaires; a checker whose main duty was to conduct field checks and verify the information; and 12 enumerators. Altogether, 810 chief enumerators, 2 364 checkers/field editors and 9 414 enumerators took part in the land and marine operation.

Recruitment

For the 1981 Census some 17 500 enumerators, 3 300 field editors/checkers and 1 100 chief enumerators had been recruited and trained. This sheer number of staff necessitated the recruiting of students and teachers, and to enable a sufficient number of them to participate in the census a special school holiday was declared by the Education Department during the ten-day operation period. An honorarium was paid to each person on satisfactory completion of the assignment: HK\$600 for the enumerators, \$700 for the field editors/checkers and \$1,100 (including instruction fees) for the chief enumerators. While the posts of chief enumerators were filled by school teachers, enumerators were mainly recruited from senior students of secondary schools, and field editors and checkers from post-secondary students.

The recruitment began smoothly, with 16 000 students trained some two months prior to the operation. However, with the approach of the census, it was evident that the number of temporary staff resigning was higher than expected, and that sufficient manpower would not be available unless supplementary training classes were held. A remedial recruitment exercise was held and a total of 45 supplementary classes were conducted, and as a result the required number of enumerators was finally met.

Training and Selection

The large number of enumerators that had to be trained inevitably created problems of organisation and a relay approach was adopted whereby permanent field staff first trained the chief enumerators, who in turn trained the enumerators. With the advent of television as a medium for school education, significant development in training and instruction was made possible by the use of television facilities. With the assistance of Radio Television Hong Kong (a government department), a set of 9 training films was produced covering the full set of instructions to be issued to enumerators. The viewing of these films formed a major part of the training.

The training course for enumerators was of 10 hours duration, while that for field editors, checkers and chief enumerators was 10 hours, 12 hours and 16½ hours, respectively. These courses were spread over several evenings. Apart from training films, considerable emphasis was placed on the working out and discussion of practical examples. Each course ended with a test and on the results successful candidates were chosen.

One day before the start of the census, a final briefing session was held and temporary staff were reminded of the methods of enumeration and saw again the television training film outlining the complete census procedure.

Census Mapping

The basic geography frame was that used in the 1976 By-census, and consisted of two parts: a list of permanent living quarters identified by detailed addresses in the urban areas and new towns and a list of segments in the rural and temporary structures areas – each segment being a cluster of 10 to 15 temporary structures delineated by some permanent and easily identifiable boundaries such as footpaths, lanes, ditches, etc.

To maintain a set of complete and up-to-date maps and lists of dwellings systematic rounds of field visits were conducted by permanent staff in order to update existing geographical records. The updating programme comprised two stages with stage 1 starting two years before the census operation. Its purposes were to visit and list all living quarters within the territory and identify item by type and use. For temporary structures, updating was specially geared to the demarcation of area segments. Stage 2 updating was mounted some 9 months prior to the census. It involved checking the completeness of the lists and maps, searching for obscure buildings, reviewing the segment boundaries, and re-listing the quarters within those temporary structures areas that had undergone substantial changes.

Enumeration Districts

To ensure there was no omission of living quarters from the census, the territory of Hong Kong was delineated by 'enumerator blocks'. Each block consisted of a cluster of living quarters assigned to a pair of enumerators – one for the 20% sample detailed enumeration (long form enumeration) and the other for the simple headcount (short form enumeration). The blocks were non-overlapping and together made up the whole terrain of Hong Kong such that no living quarters were omitted in between blocks. Each block was identified by traceable and relatively permanent boundaries such as streets, buildings, floors, footpaths, levels, etc.

In forming the enumerator blocks, the workload of enumerators was made as even as possible, taking account of such factors as housing type, degree of sharing of living quarter by households, distance and accessibility from field centres. Each enumerator block contained about 250 to 300 living quarters of which a fifth were assigned to the long-form enumerators and the rest to the short-form. The long-form enumerators were instructed to follow the list of addresses on their assignment strictly and the short-form enumerators also had to search the whole block and enumerate any non-listed quarter.

Sampling

To select the 20% sample for detailed enumeration, a one-stage stratified, replicated, systematic sampling method was adopted. Stratification was by census districts. For permanent structures the sampling unit was a living quarter and for temporary structures a segment. Details of the sampling method are given in the next chapter.

The 20% sample also served as a master sample for subsequent intercensal continuous household surveys and other ad-hoc social surveys to be conducted from time to time. Addresses of the permanent living quarters in the master sample are, therefore, kept in the computer and continuously updated.

Publicity

To inform the public of the census operation, and to seek their co-operation, an intensive publicity programme was drawn up in consultation with the Government Information Services Department. The publicity programme included a wide range of media, including pamphlets, posters, newspapers, mobile van broadcasts, radio interviews and announcements, lectures, and publicity films on television. The campaign started some seven months before the field operation, gradually intensified, and reached a climax at the main operational period.

Enumeration Method

The Census was a de facto census and a shifting census moment for enumeration was adopted such that the number of persons in the household was the number on the night prior to the first visit to the household.

The Census consisted of two separate and distinct operations, the Marine Census and the Land Census. Both censuses adopted the traditional enumerator method of data collection. For the Marine Census, the harbours and anchorages were divided into a number of small sections for operational convenience. The chief enumerator, accompanied by a small team of enumerators, toured his section with a boat and dropped his staff at different vessels to carry out the enumeration. Each boat enumerated was identified by a red census label. The chief enumerator ensured that all vessels mooring in the section were enumerated within the four-day period.

For the Land Census, enumerators followed the addresses on their assignment lists and visited the households within their blocks and ensured that no living quarter was omitted. All non-listed quarters were included in the simple headcount. The enumerators made repeated visits to interview all members of the household, and when households could not be contacted even after repeated visits, enumerators were instructed to leave a self-administered questionnaire for the householders to complete and return by mail. A total of 20 494 questionnaires were left and 10 173, about 50%, were returned completed. These completed questionnaires were used to adjust the data on the age and sex and geographical distribution of the population.

To obtain information on disablement by type among respondents, a 'pictorial description' approach was adopted. In this method, the enumerators showed the head of the household, or some responsible person in the household, pictures of different types of disabled persons and asked whether there were any such persons in the household.

Special Enumeration

For operational convenience, special arrangements were made to list and enumerate some classes of persons not living in ordinary domestic households. The armed forces, persons living in barrack accommodation, training schools for police, and fire and customs services, and inmates in hospitals and penal institutions were enumerated by their own staff specially trained and appointed for the operation. In some cases, ordinary enumerators were deployed to enumerate persons in institutions such as hostels, hotels, religious houses and welfare institutions. The short-form enumerators were instructed to search every corner of their enumerator blocks and ask simple questions on the age and sex particulars of any street-sleeper.

Quality Control of Data

A system of field checks was introduced to control the quality of operation. The system included the following major components:

- (i) the chief enumerator accompanied and observed all enumerators at work during the first stage of the operation and gave remedial training where necessary; at the second stage, weaker members of the team were given more attention and their work further inspected;
- (ii) the checker re-visited the enumerated households on a sample basis and verified the information recorded by the enumerators; all living quarters reported vacant, demolished, non-domestic or occupied by households who were absent were verified as such by the checker;
- (iii) the field editor scrutinized the submitted forms and ensured the information was complete and the coding accurate;
- (iv) the enumerators reviewed their own work at the end of the census, ensured the assignment was completed and no coding errors had been committed.

Enumeration Experience

A total of 1 335 631 quarters were visited by enumerators during the Census. The results of the visits are shown in Table 8.1.

Table 8.1 Number of quarters visited by enumerators and results of visit

<i>Result of Visit</i>	<i>Number of quarters</i>	<i>Percentage</i>
Quarters occupied by households who were present on the census reference date	1 043 770	78.1
Vacant residential quarters and quarters occupied by household who were absent from the quarters on the census reference date	125 276	9.4
Quarters not being used for domestic purposes	150 379	11.3
Quarters where no households could be contacted after repeated visits	16 206	1.2
Total	1 335 631	100.0

Post Enumeration Survey

A post-enumeration survey is essential in evaluating the completeness of the census coverage and the accuracy of its results. For the 1981 Census the post-enumeration survey consisted of two parts: a coverage check and a content check. Both checks were conducted ten days after the completion of the census operation. The coverage check covered 10% of all enumerator blocks and was carried out by permanent field staff visiting the selected blocks to ascertain any living quarters which had been omitted from the census, and then enumerate the persons living within those quarters. Results of the check showed that a total of 1 110 living quarters (with 4 030 persons) had been omitted and these findings were used to adjust the census data.

The content check was undertaken to see whether there was any undercount of the population within the enumerated households and whether the information on age and sex was correct. The sample for the content check was selected as a 5% sub-sample of quarters within enumerator blocks chosen for the 10% coverage check; covering 0.5% of the enumerated households. Visits were made by permanent field staff to these selected quarters to re-enumerate the households. No reference was made to the original questionnaires during the re-enumeration. The information obtained independently from the content check was subsequently matched with that recorded on the census questionnaires on a person-to-person basis to assess the accuracy of the first enumeration. The check showed that there were no significant differences between the data from the census and the content check. In consequence no adjustment of the census data was made on the basis of the findings of the check.

Data Input and Data Processing

The information obtained during the census was recorded on the questionnaires in long hand by the enumerators. The enumerators were also responsible for coding all but a few difficult items – occupation, industry, address 5 years ago and household composition. At the field centres the field editors coded occupation and industry. Information on household composition and address 5 years ago was coded by specialist coders at the census headquarters. Prior to computer processing, a team of clerical officers using the enumeration records of individual households manually counted the population by district. This procedure was completed in one month and a provisional headcount was released in early May of 1981.

A computer system was developed to process the huge volume of census data. The system comprised three linked steps: First, at the input stage data were converted into a computer readable medium. Second, at the editing stage the converted data were passed through a series of checks to identify any errors and to amend, either manually or automatically by the computers, the invalid information. Third, at the tabulation stage the total valid data were tabulated in the required format. An ICL2950 computer was used to process the data.

For the 1981 Census, the input and editing of the data had to be completed within a period of 15 weeks. The 'key-to-disc' method was used as the means of data input. It was established that the method was more cost-effective than the UDT – mark sensing system used in the 1971 Census. More important, it required no special care in handling the census schedules in the field, it lessened the burden of field supervision and resulted in better quality of data. Two key-to-disc XL40 installations each with 16 stations were used. All input data were verified on a 100% basis to minimise key-punching errors.

The editing system of the 1981 Census consisted of two parts, namely, validation and imputation. Validation involved the identification of such basic errors as duplication or omission of records, out-of-range values in the data field, omission of reference numbers, etc; all errors identified were displayed and amended manually. Imputation, on the other hand, involved identification of all inconsistencies between different items of information and the removal of such errors by imputing automatically new values to the variables involved.

For extensive cross-tabulations of the census data, a software package, FILAN (File Analysis System) was used in conjunction with a set of tailor-made programs. The tabulations were completed in stages according to the priority set for the release of the census information.

Tabulations

Broadly, the following series of tabulations were produced for the 1981 Census:

- (a) Prompt Tabulations – a set of 22 basic tables based on advanced tabulation of data from a 5% sample.
- (b) Summary Tabulations – simple one-way tabulations showing all the data on the population by tertiary planning unit or street block/village cluster.
- (c) Basic Tabulations – 26 basic cross-tabulations covering a wide range of census topics.
- (d) Main Tabulations – some 400 three-way or four-way cross-tabulations showing the detailed results of the census and a selection of five- to six-way tables with sub-totals showing information for a wide range of variable combinations.
- (e) Tabulations of Rates and Averages – some 50 two- to three-way tables of statistical rates and averages (e.g. unemployment rate and average household income) summarising the inter-relationship between different socio-economic characteristics.
- (f) Standard Error Tabulations – two- to three-way tables showing the standard errors of various census estimates derived from the 20% sample enumeration.
- (g) Enumerator Block Statistics – a set of statistics showing the size of each enumerator block (in terms of population, households or living quarters), and summary parameters describing the characteristics of the population.

Publications

Results of the 1981 Census were released by stages; Appendix 2 gives a list of all the reports. Broadly, the publications can be grouped into the following categories:

- (a) Advance information: the preliminary manual count of population by district and the provisional results based on a 5% sample advanced tabulation released within three months of completion of the census field operation.
- (b) Statistics by detailed geographical area: a series of reports were published showing census information by different levels of geographical breakdown; these reports contain simple one-way tables covering a wide range of social, economic and demographic topics.
- (c) Summary analyses and graphical presentations of census results: summary findings of the census, and comparisons with previous censuses, presented in the 'Summary Results' in the form of statistical tables and in the 'Graphic Guide' in the form of graphs and charts; Lands Department produced two statistical maps showing the demographic and social characteristics of the population.
- (d) Detailed results: the main body of the census results published in Volume 2 of the 'Main Report'; this was preceded by the 'Basic Tables' which includes a set of the more important tables on a wide range of census topics.
- (e) Detailed analysis of census data: this is published as the 'Main Report'. Results of the population projections and life table analysis are published under separate covers.

Finance

Total direct expenditure on the census operation during the period September 1979 and March 1982, excluding data processing, was as follows:—

<i>Item</i>	<i>Actual expenditure (HK\$ '000)</i>
Personal emoluments	7,540
Rents	2,606
Incidental expenses	329
Publicity	147
Subsistence allowance	34
Printing	603
Miscellaneous stores and equipment	412
Transport	164
Training of and honoraria for temporary enumeration staff	8,982
	<u>20,817</u>

The cost of the Census averaged HK\$4.16 per person enumerated.

1981 LAND CENSUS

TPU	SB	EB	LQ	HH	Sheet No.	
					Total	Page

Result of Final Visit	No. of HH	Type of Living Quarter	Type of HH 1=D 2=C	Household Size			Ref. Night (a)-(b)+(c)
				(a) Usual +...	(b) No. of members absent	(c) No. of friends/rel. present	

1=EN HH
2=VAC LQ
3=DEM LQ/CIP LQ
4=ND LQ
5=ABS HH IN NE LQ
6=NC LQ
7=ABS HH IN PE LQ
8=NC HH IN PE LQ

HH Ref. Night:

Address:

.....

Tel. No.:

Enumerator No.:

Do not forget to list babies, old persons, members of the household who were out on night work, boarders and visitors who spent the Ref. Night in the household.

Person Serial No.	Name	Relationship to Head	Sex	Date of Birth	
				Month	Year
0 0 1		Head	1=M 2=F		
0 0 2					
0 0 3					
0 0 4					
0 0 5					
0 0 6					
0 0 7					
0 0 8					
0 0 9					
0 1 0					

IND/FU	FE	CHK	CE	DS
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Male



Female



Total

Codes for Results of Final Visit

- 1 = EN HH
- 2 = VAC LQ
- 3 = DEM LQ/CIP LQ
- 4 = ND LQ
- 5 = ABS HH IN NE LQ
- 6 = NC LQ
- 7 = ABS HH IN PE LQ
- 8 = NC HH IN PE LQ

Codes for Activity Status

- 01 = Outworker
- 02 = Employee (Govt.)
- 03 = Employee (Private)
- 04 = Paid family worker
- 05 = Unpaid family worker
- 06 = Other unpaid worker
- 07 = Self-employed (Hawking)
- 08 = Self-employed (Others)
- 09 = Employer
- 11 = On leave
- 12 = On industrial dispute
- 13 = Just commencing work
- 14 = Temporarily laid off

- 21 = First time job seeker
- 22 = Job seeker (Prev. employed)
- 23 = Waiting to start work
- 24-25 = Not seeking work due to temporary sickness/injury (with/without previous employment)
- 26-27 = Not seeking work because believed work not available (with/without previous employment)

- 31 = Home-maker
- 32 = Full-time student
- 33 = Of indept. means
- 34 = Retired
- 35 = Inmates
- 36 = Other inactive
- 99 = N.A.

Result of Final Visit No. of HH Type of Living Quarter Type of HH

1 = D
2 = C

Person Serial No. & Name Relationship to Head Sex Date of Birth (Month Year)

Person Serial No. & Name	Relationship to Head	Sex	Date of Birth (Month Year)	Educational Attainment	Field of Education	Economic Characteristics Section: N.A. for Children Born in or after March, 1969											Disability (Show prompt card)					
						1A	1B	1C	1D	1E	1F	1	2	3	4	5		6	7	8	9	
						Whether work/do casual work during last 7 days?	Any regular job?	Whether seeking work during the last 30 days?	If not, reasons for not seeking work	Previously fulltime employed?	Reasons for not working/working less than 15 hrs.	Activity Status	Hours of work (For employees etc. <15→Q1B, ≥15→Q3)	Occupation	Industry	Secondary Occupation (employees only)		Seeking More Work	Earnings: Main Employment	Earnings: Secondary/Casual Employment	Other Cash Income	
0 0 1				SF/SP/C/NC Course/where		Y→Q1 N→Q1B	Y→Q1F N→Q1C	Y→Q1E N→Q1D	23-27→Q1E 31-36→Q2, 8, 9	Y→Q2-4, 8, 9 N→Q2, 8, 9	11, 12→Q2-9 13, 14→Q2-4, 8, 9											
0 0 2				SF/SP/C/NC Course/where		Y→Q1 N→Q1B	Y→Q1F N→Q1C	Y→Q1E N→Q1D	23-27→Q1E 31-36→Q2, 8, 9	Y→Q2-4, 8, 9 N→Q2, 8, 9	11, 12→Q2-9 13, 14→Q2-4, 8, 9											
0 0 3				SF/SP/C/NC Course/where		Y→Q1 N→Q1B	Y→Q1F N→Q1C	Y→Q1E N→Q1D	23-27→Q1E 31-36→Q2, 8, 9	Y→Q2-4, 8, 9 N→Q2, 8, 9	11, 12→Q2-9 13, 14→Q2-4, 8, 9											
0 0 4				SF/SP/C/NC Course/where		Y→Q1 N→Q1B	Y→Q1F N→Q1C	Y→Q1E N→Q1D	23-27→Q1E 31-36→Q2, 8, 9	Y→Q2-4, 8, 9 N→Q2, 8, 9	11, 12→Q2-9 13, 14→Q2-4, 8, 9											
0 0 5				SF/SP/C/NC Course/where		Y→Q1 N→Q1B	Y→Q1F N→Q1C	Y→Q1E N→Q1D	23-27→Q1E 31-36→Q2, 8, 9	Y→Q2-4, 8, 9 N→Q2, 8, 9	11, 12→Q2-9 13, 14→Q2-4, 8, 9											
0 0 6				SF/SP/C/NC Course/where		Y→Q1 N→Q1B	Y→Q1F N→Q1C	Y→Q1E N→Q1D	23-27→Q1E 31-36→Q2, 8, 9	Y→Q2-4, 8, 9 N→Q2, 8, 9	11, 12→Q2-9 13, 14→Q2-4, 8, 9											
0 0 7				SF/SP/C/NC Course/where		Y→Q1 N→Q1B	Y→Q1F N→Q1C	Y→Q1E N→Q1D	23-27→Q1E 31-36→Q2, 8, 9	Y→Q2-4, 8, 9 N→Q2, 8, 9	11, 12→Q2-9 13, 14→Q2-4, 8, 9											
0 0 8				SF/SP/C/NC Course/where		Y→Q1 N→Q1B	Y→Q1F N→Q1C	Y→Q1E N→Q1D	23-27→Q1E 31-36→Q2, 8, 9	Y→Q2-4, 8, 9 N→Q2, 8, 9	11, 12→Q2-9 13, 14→Q2-4, 8, 9											
0 0 9				SF/SP/C/NC Course/where		Y→Q1 N→Q1B	Y→Q1F N→Q1C	Y→Q1E N→Q1D	23-27→Q1E 31-36→Q2, 8, 9	Y→Q2-4, 8, 9 N→Q2, 8, 9	11, 12→Q2-9 13, 14→Q2-4, 8, 9											
0 1 0				SF/SP/C/NC Course/where		Y→Q1 N→Q1B	Y→Q1F N→Q1C	Y→Q1E N→Q1D	23-27→Q1E 31-36→Q2, 8, 9	Y→Q2-4, 8, 9 N→Q2, 8, 9	11, 12→Q2-9 13, 14→Q2-4, 8, 9											

IND/FU FE CHK CE DS

CONFIDENTIAL

HH Ref. Night:

Address:

Tel. No.

Enumerator No.

1981 LAND CENSUS

TPU SB EB LQ HH Sample Sheet No.

Total Page

Household Size			Ref. Night	Accommodation	Tenure	Rent	Household composition
(a) Usual	(b) No. of members absent	(c) No. of friends/rel. present					
.....	(a)-(b)+(c)				

Place of Birth	Place of Origin	Permanent Address 5 Years Ago (i.e. March 1976) Record country if outside H.K.	If in Hong Kong		If outside Hong Kong		No. of Children Ever Born	Marital Status
			Usually live here?	If not, Whether moved in last 5 years?	Stayed/Intend to stay over 6 months	If yes, Year of arrival		
		Same/H.K./outside H.K. No. Street	Y. N. →	Y. N.	Y. → N.			
		Same/H.K./outside H.K. No. Street	Y. N. →	Y. N.	Y. → N.			
		Same/H.K./outside H.K. No. Street	Y. N. →	Y. N.	Y. → N.			
		Same/H.K./outside H.K. No. Street	Y. N. →	Y. N.	Y. → N.			
		Same/H.K./outside H.K. No. Street	Y. N. →	Y. N.	Y. → N.			
		Same/H.K./outside H.K. No. Street	Y. N. →	Y. N.	Y. → N.			
		Same/H.K./outside H.K. No. Street	Y. N. →	Y. N.	Y. → N.			
		Same/H.K./outside H.K. No. Street	Y. N. →	Y. N.	Y. → N.			
		Same/H.K./outside H.K. No. Street	Y. N. →	Y. N.	Y. → N.			

Male

Female

Total

Codes for Activity Status

- 01 = Outworker
- 02 = Employee (Govt.)
- 03 = Employee (Private)
- 04 = Paid family worker
- 05 = Unpaid family worker
- 06 = Other unpaid worker

- 07 = Self-employed (Hawking)
- 08 = Self-employed (Others)
- 09 = Employer

- 11 = On leave
- 12 = On industrial dispute
- 13 = Just commencing work
- 14 = Temporarily laid off

- 21 = First time job seeker
- 22 = Job seeker (Prev. employed)

- 23 = Waiting to start work
- 24-25 = Not seeking work due to temporary sickness/injury (with/without previous employment)
- 26-27 = Not seeking work because believed work not available (with/without previous employment)

- 31 = Home-maker
- 32 = Full-time student
- 33 = Of indept. means
- 34 = Retired
- 35 = Inmates
- 36 = Other inactive
- 99 = N.A.

Result of Final Visit No. of HH in Vessel Type of Craft No. of Engine

Person Serial No. & Name Relationship to Head Sex Date of Birth (Month Year)

		Economic Characteristics Section: N.A. for Children Born in or after February, 1969																	Disability (Show prompt card)
Educational Attainment	Field of Education	1A	1B	1C	1D	1E	1F	1	2	3	4	5	6	7	8	9			
		Whether work/do casual work during last 7 days?	Any regular job?	Whether seeking work during the last 30 days?	If not, reasons for not seeking work	Previously fulltime employed?	Reasons for not working/working less than 15 hrs.	Activity Status	Hours of work (For employees etc. <15→Q1B, ≥15→Q3)	Occupation	Industry	Secondary Occupation (employees only)	Seeking More Work	Earnings: Main Employment	Earnings: Secondary/Casual Employment	Other Cash Income			
SF/SP/C/NC Course/where		Y→Q1 N→Q1B	Y→Q1F N→Q1C	Y→Q1E N→Q1D	23-27→Q1E 31-36→Q2, 8, 9	Y→Q2-4, 8, 9 N→Q2, 8, 9	11, 12→Q2-9 13, 14→Q2-4, 8, 9												
SF/SP/C/NC Course/where		Y→Q1 N→Q1B	Y→Q1F N→Q1C	Y→Q1E N→Q1D	23-27→Q1E 31-36→Q2, 8, 9	Y→Q2-4, 8, 9 N→Q2, 8, 9	11, 12→Q2-9 13, 14→Q2-4, 8, 9												
SF/SP/C/NC Course/where		Y→Q1 N→Q1B	Y→Q1F N→Q1C	Y→Q1E N→Q1D	23-27→Q1E 31-36→Q2, 8, 9	Y→Q2-4, 8, 9 N→Q2, 8, 9	11, 12→Q2-9 13, 14→Q2-4, 8, 9												
SF/SP/C/NC Course/where		Y→Q1 N→Q1B	Y→Q1F N→Q1C	Y→Q1E N→Q1D	23-27→Q1E 31-36→Q2, 8, 9	Y→Q2-4, 8, 9 N→Q2, 8, 9	11, 12→Q2-9 13, 14→Q2-4, 8, 9												
SF/SP/C/NC Course/where		Y→Q1 N→Q1B	Y→Q1F N→Q1C	Y→Q1E N→Q1D	23-27→Q1E 31-36→Q2, 8, 9	Y→Q2-4, 8, 9 N→Q2, 8, 9	11, 12→Q2-9 13, 14→Q2-4, 8, 9												
SF/SP/C/NC Course/where		Y→Q1 N→Q1B	Y→Q1F N→Q1C	Y→Q1E N→Q1D	23-27→Q1E 31-36→Q2, 8, 9	Y→Q2-4, 8, 9 N→Q2, 8, 9	11, 12→Q2-9 13, 14→Q2-4, 8, 9												
SF/SP/C/NC Course/where		Y→Q1 N→Q1B	Y→Q1F N→Q1C	Y→Q1E N→Q1D	23-27→Q1E 31-36→Q2, 8, 9	Y→Q2-4, 8, 9 N→Q2, 8, 9	11, 12→Q2-9 13, 14→Q2-4, 8, 9												
SF/SP/C/NC Course/where		Y→Q1 N→Q1B	Y→Q1F N→Q1C	Y→Q1E N→Q1D	23-27→Q1E 31-36→Q2, 8, 9	Y→Q2-4, 8, 9 N→Q2, 8, 9	11, 12→Q2-9 13, 14→Q2-4, 8, 9												
SF/SP/C/NC Course/where		Y→Q1 N→Q1B	Y→Q1F N→Q1C	Y→Q1E N→Q1D	23-27→Q1E 31-36→Q2, 8, 9	Y→Q2-4, 8, 9 N→Q2, 8, 9	11, 12→Q2-9 13, 14→Q2-4, 8, 9												

1981 MARINE CENSUS

DIST	SECT	EN	VESSEL	HH	Sheet No.
Total					Page

Engine Horsepower	Length of Vessel	Age of Vessel	Type of HH	Household Size			Ref. Night	Land Accommo- dation	Household Composition
				(a) Usual	(b) No. of mem- bers absent	(c) No. of friends/ rel. present			
			1=D 2=C+			(a)-(b)+(c)		

Place of Birth	Place of Origin	Permanent Address 5 Years Ago (i.e. February 1976) <small>Record country if outside H.K.</small>	If in Hong Kong		If outside Hong Kong		No. of Children Ever Born	Marital Status
			Usually live here?	If not, Whether moved in last 5 years?	Stayed/ Intend to stay over 6 months	If yes, Year of arrival		
		Same/H.K./outside H.K. No. Street	Y. N. →	Y. N.	Y. → N.			
		Same/H.K./outside H.K. No. Street	Y. N. →	Y. N.	Y. → N.			
		Same/H.K./outside H.K. No. Street	Y. N. →	Y. N.	Y. → N.			
		Same/H.K./outside H.K. No. Street	Y. N. →	Y. N.	Y. → N.			
		Same/H.K./outside H.K. No. Street	Y. N. →	Y. N.	Y. → N.			
		Same/H.K./outside H.K. No. Street	Y. N. →	Y. N.	Y. → N.			
		Same/H.K./outside H.K. No. Street	Y. N. →	Y. N.	Y. → N.			
		Same/H.K./outside H.K. No. Street	Y. N. →	Y. N.	Y. → N.			
		Same/H.K./outside H.K. No. Street	Y. N. →	Y. N.	Y. → N.			
		Same/H.K./outside H.K. No. Street	Y. N. →	Y. N.	Y. → N.			

Male
 Female
 Total

Appendix 2

List of Census Publications

1. Hong Kong 1981 Census – Provisional Tables
2. Hong Kong 1981 Census – Tertiary Planning Unit Population by Age
3. Hong Kong 1981 Census – Living Quarters, Households and Population by Type of Living Quarter and Tertiary Planning Unit
4. Hong Kong 1981 Census – Summary Results
5. Hong Kong 1981 Census – Basic Tables
6. Hong Kong 1981 Census – District Board Constituency Area Population by Age
7. Hong Kong 1981 Census – Living Quarters, Households, Population by Type of Living Quarter and District Board Constituency Area
8. Hong Kong 1981 Census – District Board Tabulations
9. Hong Kong 1981 Census – Tertiary Planning Unit Tabulations
10. Hong Kong 1981 Census – Street Block/Village Cluster Tabulations
11. Hong Kong 1981 Census – Graphic Guide
12. Hong Kong 1981 Census – Educational Attainment, Median Household Income, Occupation and Labour Force (Statistical map)
13. Hong Kong 1981 Census – Main Report
14. Hong Kong Life Tables, 1981–2001
15. Hong Kong Population Projections, 1981–2001
16. Population Map Hong Kong (Statistical map published by the Lands Department)

Chapter 9

Sample Design of the 1981 Census

Introduction

In the 1966 By-census, sampling techniques were first used to collect population data. The 1971 Census reverted to being a complete enumeration, but in 1976 the By-census was again conducted on a sample basis. The 1981 Census was a two-phase design which entailed a complete count by age and sex and a 20% sample of the population by a broad range of social, economic and demographic characteristics.

Two-phase Sample Design

For this two-phase design, two kinds of questionnaires were used. The 'short-form' included basic questions on age, sex, relationship to head of household, type of household, and type of living quarter; the 'long-form', covering 20% sample of the households, included questions asked in the 'short-form' and questions on type of accommodation, tenure, rent, household composition, place of birth/origin, number of children ever born, marital status, internal movement, educational attainment and training, activity status, occupation, industry, income, and type of disability, etc.

The two-phase design was wide in scope, gave results of a high precision, and accomplished this at minimum cost. The two-phase method was adopted because it had several advantages over the traditional full-enumeration. It was cheaper by about 50%, reduced the number of staff required by approximately 20 000, made possible the selection of better quality enumerators, improved training, supervision and control over field staff, and reduced the time required for data processing. An exception to this two-phase design was made in the case of the marine population; in this case, everyone was enumerated in order to provide adequate information about the marine population in each harbour district.

Sampling Frame

The units in an ideal sampling frame should be exhaustive and mutually exclusive, and most important, the listing should be continuously updated.

The sampling frame for the 1981 Census consisted of two parts:

- (a) for urban areas and the new towns, samples were selected from a list of permanent living quarters, each identified by a unique address; the majority of quarters were of this type;
- (b) for rural areas and areas of temporary structures, samples were selected from a list of segments, each segment being a cluster of some 10 – 15 structures identified by permanent landmarks such as a road, ditch, or lane; addresses of individual quarters within each segment were also listed.

A list of permanent quarters or area segments is more accurate and easier to update than a list of households. Each sampling unit represented a cluster of persons and it was statistically preferable to keep the size of clusters as small as possible. Individual quarters were therefore preferred to area segments as sampling units because they had a smaller sampling error. The absence of unique and identifiable addresses among the temporary structures made it difficult to keep the list up-to-date. Sampling units of area segments facilitated the identification of quarters by the use of the relatively permanent segment boundaries.

To maintain a complete and up-to-date sampling frame, the permanent field staff made systematic rounds of field visits in order to update the geographical records. Regular field visits were supplemented by *ad-hoc* updating using returns from the Building Ordinance Office and the Housing Department which showed demolished old buildings and newly constructed buildings. The list of permanent quarters was therefore continuously updated and this reduced the likelihood of any omissions.

Sample Size

A decision on the size of sample for a census should depend on its cost and the precision desired. Theoretically, the larger the sample the smaller will be the error due to sampling. Analysis of the tabulations from the 1976 By-census showed that with a 10% sample the relative error for most characteristics of the population at an all-area level was less than 5%, although estimates by detailed cross-classifications were subject to larger error. To reduce the sampling errors a larger sample was adopted for the 1981 Census.

To estimate the sample size and hence the sampling fraction which will yield maximum precision for a given cost, a cost-precision analysis was carried out. Table 9.1 below summarises the results of the analysis:

Table 9.1 Cost-precision analysis of the sample size

	<i>100% Headcount Plus</i>			
	<i>10% enumeration</i>	<i>20% enumeration</i>	<i>25% enumeration</i>	<i>30% enumeration</i>
Cost (in HK\$ million)				
Data processing	4.16	4.87	5.86	6.46
Honoraria to field workers	5.38	7.36	9.10	10.80
Other expenditure	5.91	7.50	8.29	9.19
Total cost	15.45	19.73	23.25	26.45
Cost per head=C (in HK\$)	3.23	4.11	4.85	5.52
(Precision-Relative standard error)=P*	y	0.67y	0.58y	0.51y
Cost× Precision	3.23y	2.75y	2.81y	2.82y
Relative C×P	117	100	102	103

* For a simple random sampling design, the standard error is proportional to $\sqrt{(1-f)/n}$, where f is the sampling fraction, and n the sample size.

The above shows that at a fixed cost a 20% sample will give the maximum precision.

Sampling Method

The sampling method had to fulfil the following requirements:

- (a) provide estimates of the population parameters and their standard errors for each census district;
- (b) ensure that standard errors could be computed efficiently;
- (c) provide sub-samples for use in the intercensal, continuous General Household Survey and other sample household surveys;
- (d) be so designed that it could be executed with minimum administrative effort.

Based on these requirements, a one-stage stratified, replicated, systematic sampling method was adopted. Stratification was by census districts in order to satisfy requirement (a) above. The division of the sampling frame into permanent quarters and temporary structure segments also required similar stratification. The census was a general purpose survey, and in the absence of any overriding survey objective, no other explicit stratification was introduced though the kind of structures in the frame could have provided implicit stratification by geographical location and type of housing. For administrative convenience, the sample was selected systematically. The use of replication in the design simplified the computation of the sampling errors of the estimates; 40 sub-samples or replicates were chosen, each 0.5%, or 1 in 200 of the population. Each sub-sample can be used as a random sample for subsequent household surveys, such as the Transport Characteristics Survey.

Estimation Procedures

To estimate the population parameters on the basis of information obtained from the 20% sample, a 'ratio estimation method' was adopted. Based on the results of the complete enumeration, the whole population was disaggregated into 76 age-sex categories to obtain a set of known totals which were used as 'control' figures for adjusting the sample statistics. The population in the 20% sample was 'post-stratified' into similar categories. Each age-sex-specific sample was then compared with the corresponding control total to obtain the weight for grossing-up all persons in the 20% sample of that category.

The ratio estimation method was preferred to the straight grossing-up procedure of multiplying by 5 throughout, for two reasons:

- (a) first, it removed any inconsistency between the estimates based on the 20% sample and the complete headcounts for basic characteristics such as age and sex; such inconsistencies would have arisen if the latter had not been used as control totals in the estimation process;
- (b) second, by utilizing information obtained from the complete count, the ratio adjustment method produced more precise estimates. The magnitude of the reduction in sampling error depended above all on which variables were estimated. Quite considerable gains in precision were achieved by post-stratification for those variables which were highly affected by age-sex differentials.

The weights for ratio adjustments were usually non-integral, and if applied would have led to non-integral counts in the results. The problem could not be overcome by rounding since this would have resulted in rounding errors and inconsistencies in the tables. In practice, integral weights were used for grossing-up. Thus, if N and n

denote the number of persons in the complete enumeration and 20% sample respectively, the values of the weights for adjustment are either 'a' or 'a+1', where 'a' indicates the integral part of the adjustment factor N/n . These two integral weights were randomly assigned to individual persons in the 20% sample in a proportion such that their sum coincided with the required total, N .

For example: $N=1\ 250$, $n=277$

Since $N \div n = 4.51$, the weights are $a=4$ and $a+1=5$

Out of the 277 persons in that category, 135 will be given weight equal to 4 and the remaining 142 persons weights equal to 5.

The adjusted total: $4 \times 135 + 142 \times 5 = 1\ 250$, as required. The formula for determining m , the number of persons receiving weight equal to a , is:

$$m = (a+1)n - N, \text{ so that } a \times m + (a+1)(n-m) = N$$

A computer system was designed to calculate and assign the weights at random to individual data records. During tabulation, adjustment was facilitated by the summing of weights attached to all records to give the set of adjusted totals.

Formulae

Within each district, the formulae for the estimation of parameters and their variances are as follows:

(a) For the estimation of population totals:

Let N_k ; $k=1, 2, \dots, K$ be the population total for the k^{th} age-sex category, and n_k is the corresponding sample total. Denote the complete count and sample count of the population in respect of a certain characteristic by Y_k and y_k respectively; N_k is observed from the complete enumeration and n_k from the sample enumeration, and Y_k is to be estimated on the basis of N_k , n_k and y_k . Then the population total $Y = \sum_k Y_k$ is estimated by $\hat{Y} = \sum_k \hat{Y}_k$

$$= \sum_k y_k \frac{N_k}{n_k}$$

where $\hat{Y}_k = y_k \frac{N_k}{n_k}$

Furthermore the variance of \hat{Y} is estimated by

$$\text{Var}(\hat{Y}) = (1-f) \frac{r}{r-1} \sum_{i=1}^r \left(\hat{Y}_{(i)} - \frac{\sum \hat{Y}_{(i)}}{r} \right)^2$$

where $f=0.2$ is the sampling fraction

$r=20$ is the number of thick zones involved in the calculation of standard error

$\hat{Y}_{(i)}$ is the independent estimate from the i^{th} thick zone

$$= 0.8 \times \frac{20}{19} \times \sum_{i=1}^r \left(\hat{Y}_{(i)} - \frac{\sum \hat{Y}_{(i)}}{20} \right)^2$$

(b) For the estimation of $R = \frac{Y}{X}$

using similar notation as above, R is estimated by

$$\hat{R} = \frac{\hat{Y}}{\hat{X}} = \frac{\sum_k y_k (N_k/n_k)}{\sum_k x_k (N_k/n_k)} \text{ and its variance by}$$

$$\text{Var}(\hat{R}) = (1-f) \frac{r}{r-1} \frac{1}{\hat{X}^2} \sum_{i=1}^r \left(\hat{Y}_{(i)} - \hat{R} \hat{X}_{(i)} \right)^2$$

$$= 0.8 \times \frac{20}{19} \times \frac{1}{\hat{X}^2} \times \sum_{i=1}^r \left(\hat{Y}_{(i)}^2 - 2\hat{R} \hat{X}_{(i)} \hat{Y}_{(i)} + \hat{R}^2 \hat{X}_{(i)}^2 \right)$$

Chapter 10

Assessment of Quality of Census Data

A population census is a large scale and complex exercise. Whilst every attempt is made to ensure the completeness of the enumeration and the accuracy of the results, it is accepted that there will always be some errors in the census data. If the errors are kept within reasonable limits the data are valuable. There is therefore a need to evaluate the quality of the census data in order to throw light on the magnitude of the errors.

In this chapter we assess the accuracy and quality of the 1981 Census results. The purpose of this evaluation is twofold: first, to provide users with some basic measure of the quality of the census data and hence some indication of the confidence with which these data can be used for different purposes and, second, to provide the census-takers with the information needed to plan and implement improvements in future censuses and surveys.

Sources and Classification of Errors

A distinction is usually made between the sampling error and the non-sampling error. Sampling error occurs when observations are made on the basis of a sample and not the entire population. It refers to the range of variability within which estimates of the same statistic from successive samples drawn by the same method are likely to fall; and is therefore not an 'error' in the usual sense of 'mistake', rather, it is a recognised and controlled variable element in the method. All estimates based on the 20% enumeration of the 1981 Census are subject to sampling error.

The second type of error, non-sampling errors, are essentially human errors that occur at the time of enumeration and during the processing of the raw data. They may affect the completeness of the coverage or the accuracy of the measurement. Typically, non-sampling errors arise at the data collection stage due to one or more of the following factors: incomplete geographical records and maps given to enumerators; careless omission of persons or households in enumeration; difficulty in contacting certain households; respondents being uncooperative or unwilling to give correct answers; deliberate falsification of data; conceptual problems involved in the questionnaires or the instructions; and coding errors. During data processing, errors can arise from mistakes made by the office staff who handle the data, or erroneous computer programmes, or wrong transcription of data when reports are being compiled. Some non-sampling errors affect the figure on the total or sub-totals of the population, whereas other affect the classification of the individual units in respect of their characteristics. The first type is called coverage errors, and the second type content errors. This dichotomy between coverage and content error is however not rigid – when dealing with sub-groups of the population as defined by certain characteristics, the same error can be stated as an example of either kind of error. Coverage errors may also distort the results of classification by other characteristics if the omitted units are markedly different from the rest of the population in respect of those characteristics.

Whereas sampling error is a random error whose size can be controlled by suitable choice of sample size, non-sampling errors are not easy to predict, control, or measure. They cause bias in the results, the direction and magnitude of which are not obvious or easy to assess. In the following sections, both sampling errors and non-sampling errors will be discussed.

Sampling Errors

The magnitude of sampling error for a variable basically depends on (a) the size and type of sample and (b) the intrinsic variability of the characteristic being considered. Both the sampling design for the 1981 Census and the formula for estimating sampling error are discussed in the last chapter.

The particular sample selected at random for the detailed enumeration of the 1981 Census is one of a large number of all possible samples of the same size, that could have been selected using the same sampling design. Estimates derived from different samples will differ from each other. If the deviations of the sample estimates from the average value of all possible samples are small, then the estimate from a particular sample is accepted as a good approximation to the population value. The standard error, which is an average measure of the squared deviations of sample estimates from their average value, reflects the precision of the estimation in general. Standard errors can also be interpreted through the concept of confidence interval: the sample estimate together with its standard error will enable interval estimates to be constructed, which will include the true value with prescribed confidence. To illustrate this, let us consider all the possible samples selected and surveyed under essentially the same conditions. According to statistical theory, among all possible intervals of two standard errors above and below the sample estimates, about 95% of them will include the actual population value. Such an interval is therefore called a 95%

confidence interval. This does not mean, of course, that a particular interval must necessarily include the true value; but overall the computed interval estimates based on all possible samples will contain the true value with the indicated confidence.

The following table gives the sample estimates, the estimated standard errors and 95% confidence interval estimates of some selected characteristics which have been chosen to illustrate the range of precision of the Land Census variables at different levels of detail. The data on the marine population, and the basic data relating to number of persons and households, age, sex, household size and type of living quarter for the land-based population were obtained from a complete count. These data are not subject to sampling errors.

Table 10.1 Sample estimates, estimated standard error and 95% confidence interval estimates; 1981

<i>Variables</i>	<i>(Percentage/Ratio)</i>				
	<i>Sample estimate</i> %	<i>Standard error</i> %	<i>Ratio: standard error to estimate</i> %	<i>95% Confidence Interval</i> <i>Lower limit</i> <i>Upper limit</i> %	
Proportion of persons born in Hong Kong	57.0	0.12	0.2	56.8	57.2
Proportion of persons with Hong Kong as place of origin	2.1	0.04	1.7	2.1	2.2
Proportion of females aged 15 and over ever-married	67.4	0.08	0.1	67.3	67.6
Proportion of females aged 20–24 ever-married	28.6	0.18	0.6	28.2	28.9
Proportion of females aged 20–24 with primary education who were ever-married	41.7	0.34	0.8	41.0	42.3
Proportion of ever-married males divorced	0.6	0.01	1.9	0.6	0.7
Proportion of population with no schooling/pre-primary education only	21.7	0.06	0.3	21.6	21.8
Proportion of persons aged 10 studying full-time	98.9	0.08	0.1	98.7	99.0
Proportion of persons in Tsuen Wan New Town aged 10 studying full-time	99.4	0.12	0.1	99.1	99.6
Crude labour force participation rate for the whole population	66.6	0.13	0.2	66.3	66.9
Labour force participation rate for females aged 30–34	49.9	0.24	0.5	49.5	50.4
Unemployment rate	4.0	0.03	0.8	3.9	4.1
Unemployment rate for males aged 20–24	4.2	0.08	1.9	4.0	4.3
Headship rate of persons aged 30–34	38.7	0.14	0.4	38.4	39.0
Headship rate of persons aged 60–64	55.3	0.22	0.4	54.9	55.7
Proportion of one-unextended-family nucleus	54.4	0.12	0.2	54.2	54.7
Proportion of households with income between HK\$2,500–2,999	9.7	0.06	0.6	9.6	9.8
Proportion of households who were owner-occupiers	27.9	0.12	0.4	27.6	28.1
Proportion of population in Tuen Mun New Town who have moved into the town in the past 5 years	52.7	0.77	1.5	51.2	54.2
<i>Variables</i>	<i>(Totals/Averages)</i>				
	<i>Sample estimate</i>	<i>Standard error</i>	<i>Ratio: standard error to estimate</i> %	<i>95% Confidence Interval</i> <i>Lower limit</i> <i>Upper limit</i>	
Population with origin in United Kingdom	25 702	508	2.0	24 707	26 697
Never married males aged 15 and over	840 347	1 556	0.2	837 298	843 396
Never married males aged 30–34	59 633	435	0.7	58 781	60 485
Ever-married women with no children ever born	125 534	771	0.6	124 022	127 046

Variables	(Totals/Averages)		Ratio: standard error to estimate %	95% Confidence Interval	
	Sample estimate	Standard error		Lower limit	Upper limit
Average number of children born to ever-married women	2.9	0.00	0.1	2.9	3.0
Average number of children born to ever-married women aged 25–29	1.5	0.01	0.4	1.5	1.5
Average number of children born to ever-married women aged 25–29 who were not working	1.8	0.01	0.4	1.8	1.8
Persons attending school full-time	1 257 108	3 284	0.3	1 250 672	1 263 544
Persons attending secondary school full-time	437 622	1 739	0.4	434 213	441 031
Population with matriculation education	135 537	840	0.6	133 891	137 183
Population with university education	125 787	849	0.7	124 123	127 451
Labour force aged 15–19	242 111	1 155	0.5	239 847	244 375
Working population	2 378 375	4 833	0.2	2 368 902	2 387 848
Self-employed (hawking)	62 670	598	1.0	61 498	63 842
Employee (private)	1 819 710	4 273	0.2	1 811 335	1 828 085
Labour force in manufacturing industry#	1 022 191	3 044	0.3	1 016 225	1 028 157
Labour force in textile industry#	110 444	849	0.8	108 780	112 108
Professional/Technical and related workers (including the unemployed)#	145 735	861	0.6	144 048	147 422
Accountant and Auditor (including the unemployed)#	10 003	203	2.0	9 604	10 402
Average hours of work of employees*	49.9	0.02	0.0	49.8	49.9
Average hours of work of employees in manufacturing industry*	48.4	0.02	0.0	48.3	48.4
Average hours of work of sales workers*	54.8	0.09	0.2	54.6	55.0
One-person households	188 710	1 416	0.8	185 935	191 485
One-person households with elderly persons aged 60 and over	59 396	619	1.0	58 183	60 609
Domestic households with elderly persons aged 60 and over	384 747	1 291	0.3	382 217	387 277
Average household income (excluding zero income household)	4 040	9.73	0.2	4 021	4 059
Average household income in Yau Ma Tei (excluding zero income household)	3 588	55.43	1.5	3 479	3 697
Domestic households occupying whole flats in private housing blocks	390 026	1 197	0.3	387 680	392 372
Owner-occupied households	345 026	1 511	0.4	342 064	347 988
Owner-occupied households in private housing blocks	280 300	1 027	0.4	278 286	282 314
Persons moving into Sha Tin New Town	61 908	1 035	1.7	59 880	63 936
Persons moving out of Sha Tin New Town	17 966	214	1.2	17 547	18 385

Excluding those unemployed without previous job.

* Excluding farmers and fishermen, persons on leave or industrial dispute.

Post-enumeration Survey and Coverage Error

The most important single figure extracted from a population census is the overall headcount. While every effort is always made to reduce the omission of persons in the census, the effort is never entirely successful. The types of omission can be categorised as follows:

- (a) one or more persons in the enumerated households have been missed;
- (b) an entire household in a living quarter has been overlooked;
- (c) living quarters have not been included on the census list;
- (d) households could not be contacted – i.e. households not found at home even after many repeated visits.

Each of the above kind of omission is taken up in the reverse order – the first three categories being subjects of the post-enumeration survey which is discussed below. As regards the last kind of omission, the procedures in the 1981 Census ensured that the number of non-contact cases was a minimum by requiring that the enumerators

made at least 5 visits to the households. If the household could not be contacted a questionnaire was left the address with a request for it to be completed and returned to the census headquarters. There were a total of 20 494 non-contacted households, of which 10 173, or 50%, returned a completed form. The net result was that over 99% of all households were enumerated. On the basis of the self-completed forms returned, an adjustment was made to the overall headcount to allow for those non-contacted households which did not return the questionnaires.

To assess the effect of omission of living quarters on the magnitude of undercoverage in the headcount, a post-enumeration survey was conducted two weeks after the main operation. The first part of the survey, known as the coverage check, involved permanent field staff searching every corner of a 10% random sample of enumerator blocks to identify any living quarters that had been omitted in the census and to enumerate the persons living there. The reference date adopted for this enumeration was March 9th, 1981 and questionnaires for the simple headcount were used.

The coverage check showed that some 1 110 living quarters had been omitted from the census. Since over a million living quarters had been enumerated, the rate of omission was 0.1% or 10 per 10 000 quarters. The size of the omitted population in these quarters was estimated to be 4 030, equivalent to an omission rate of 8 per 10 000 persons or less than 0.1%. Table 10.2 below shows the distribution of these persons by type of living quarter.

Table 10.2 Distribution of persons in omitted living quarters by type of living quarter according to the post-enumeration coverage check

<i>Type of Living Quarter</i>	<i>No. of persons</i>	<i>Percentage</i>
Housing Authority rental blocks	332	8.2
Housing Society rental blocks	—	—
Private housing blocks	1 090	27.0
Housing Authority home ownership estates	—	—
Modern houses/Modern village houses	160	4.0
Simple stone structures	580	14.4
Institutions	—	—
Other permanent housing	194	4.8
Roof-top structures	280	6.9
Other temporary housing	1 394	34.7
Total	4 030	100.0

The purpose of the second part of the post-enumeration survey, the content check, was to assess (a) the magnitude of the coverage error in the enumerated households, and the omission of households in living quarters covered in the census; and (b) the accuracy of the census results in respect of age and sex. This check necessitated the re-interviewing all households in a 0.5% or 1 in 200 sample of the enumerated living quarters – to facilitate the operation a 2-stage sampling design was adopted which entailed selecting first a 10% sample of enumerator blocks and then a 5% sample of living quarters in these blocks.

The re-interview study was designed to obtain more accurate data than was feasible in the census. The means of accomplishing this were (a) the use of permanent field staff; (b) detailed probing and (c) choosing the most knowledgeable person in the household to answer the questions. To ensure that the census interview and the re-interview were as independent as possible the permanent field staff were given no information on the original questionnaires except the identification of the household and the reference date. Information obtained from the content check was subsequently matched with the census questionnaires on a person-to-person basis to measure the extent of discrepancies between the two sets of results. No field verification was conducted for any discrepancies found on the assumption that the answers obtained by the permanent field staff were the true ones. Table 10.3 below shows the results of the re-interviews.

Table 10.3 Result of re-visits: content check

<i>Result of Re-visit</i>	<i>Number of households</i>
Original households re-interviewed	6 161
Original households not re-interviewed	
households not identifiable	24
households had moved away	75
households could not be contacted	137
quarters had been demolished	8
New households interviewed	
households omitted in census	78
households were mixed with other households in census	28

The results of the content check in respect of coverage error are as shown in Table 10.4 below.

Table 10.4 Results of content check regarding coverage error in enumerated households and omission of households in the enumerated living quarters

	<i>Number in PES sample</i>	<i>Estimated total in whole population</i>	<i>Rate of undercount or overcount (per 10 000 population)</i>
Omission of households in enumerated living quarters			
Number of households omitted	78	15 600	—
Undercount in census:			
number of persons omitted in such households	135	27 000	-54.1
Coverage error in enumerated households			
Number of persons enumerated in the census	23 920	—	—
Number of persons enumerated in the post-enumeration survey	23 755	—	—
Overcount in census	165	33 000	+66.2
Net overcount	30	6 000	+12.0

Although the content check indicated a small net overcount of persons in the census, this conclusion has to be interpreted with caution. The two off-setting components of the net figure, i.e. omitted households and overcount of persons in enumerated households, are themselves subject to both sampling and non-sampling errors. In particular, the content check itself is likely to be affected by errors of memory lapse since it was conducted almost one month after the census and required the respondents to recall the number of persons in the households on the census reference date. This memory error would have a more serious effect on the magnitude of overcount in enumerated households than the omission of entire households since the former involved matching of persons with the census results on a one-to-one basis. The results of the content check show clearly however that there was no serious undercount in the census.

To assess the accuracy of the census results in respect of age and sex, a matching of the information between the census and the content check was made. A total of 22 629 persons, or 95.3% of the content check sample, were identified in both enquiries and in the matching of age-sex particulars. The 4.7% were not involved in the matching either because they had been omitted from one of the two operations, or because of difficulties in identification. Table 10.5 and 10.6 below show the results of the matching.

Table 10.5 Distribution of persons by age as reported in census and as reported in post-enumeration survey

Age as Reported in Census	Age as Reported in Post-enumeration Survey														Total
	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65 and over	
0-4	1 722	29	5	1	—	1	—	1	—	—	—	—	—	—	1 759
5-9	21	1 757	19	3	—	—	—	1	—	—	—	—	—	—	1 801
10-14	3	27	1 947	38	2	1	—	—	—	—	1	—	—	1	2 020
15-19	—	2	31	2 538	50	6	—	—	—	—	—	—	—	1	2 628
20-24	1	—	4	57	2 496	92	7	1	—	—	1	—	—	1	2 660
25-29	—	—	—	3	81	1 993	69	6	2	5	2	—	1	1	2 163
30-34	—	—	—	—	3	71	1 560	65	6	1	1	1	—	3	1 711
35-39	—	—	—	—	—	7	61	849	53	20	—	3	1	2	996
40-44	—	—	—	—	1	1	4	43	951	93	13	3	—	1	1 110
45-49	—	—	—	2	1	2	4	9	74	1 005	92	10	—	1	1 200
50-54	—	—	—	—	2	1	1	1	10	68	981	83	15	3	1 165
55-59	—	—	—	—	2	—	—	2	3	8	81	838	70	14	1 018
60-64	—	—	—	—	—	—	—	—	—	2	10	65	757	54	888
65 and over	—	1	1	—	2	—	2	—	1	3	1	9	46	1 444	1 510
Total	1 747	1 816	2 007	2 642	2 640	2 175	1 708	978	1 100	1 205	1 183	1 012	890	1 526	22 629

Table 10.6 Distribution of persons by sex as reported in census and as reported in post-enumeration survey

Sex as Reported in Census		Sex as Reported in Post-enumeration Survey		Total
		Male	Female	
Male	number	11 582	216	11 798
	percentage	51.2	0.9	52.1
Female	number	46	10 785	10 831
	percentage	0.2	47.7	47.9
Total	number	11 628	11 001	22 629
	percentage	51.4	48.6	100.0

A way of summarising the data in the above tables is to calculate a rate of misclassification, which is defined as the relative percentage of the persons recorded under different categories of age, or sex, in the census and the content check. The rate of misclassification is affected by the performance of enumerators in the census, and the ability of households to give truthful and consistent answers – any failure on the part of respondents to give consistent information shows up in the observed rates. The results of the content check give the rates of misclassification for age and sex respectively as 7.9% and 1.2%, indicating that the age information is less accurate than sex. The effect of misclassification on the overall age distribution is much less since some errors are compensating.

Table 10.7 Age distribution of persons in content check analysis (excluding persons not involved in the matching) as reported in census and in post-enumeration survey

Age Group	Number of Persons by Age Group		
	As reported in census	As reported in post-enumeration survey	Difference (Census – PES) as a % of PES figure %
0-4	1 759	1 747	+0.69
5-9	1 801	1 816	-0.83
10-14	2 020	2 007	+0.65
15-19	2 628	2 642	-0.53
20-24	2 660	2 640	+0.76
25-29	2 163	2 175	-0.55
30-34	1 711	1 708	+0.18
35-39	996	978	+1.84
40-44	1 110	1 100	+0.91
45-49	1 200	1 205	-0.41
50-54	1 165	1 183	-1.52
55-59	1 018	1 012	+0.59
60-64	888	890	-0.22
65 and over	1 510	1 526	-1.05

Table 10.8 Sex distribution of persons in content check sample as reported in census and in post-enumeration survey

Sex	As reported in census	Number of Persons by Sex	
		As reported in post- enumeration survey	Difference (Census – PES) as a % of PES figure %
Male	11 798	11 628	+1.46
Female	10 831	11 001	-1.55

Computer Checking of Enumeration Errors

Errors arise during interviewing, recording and coding of answers. For example, enumerators may misinterpret the questions or record an answer wrongly, respondents may be unable or unwilling to provide correct information, and answers recorded in long hand may be wrongly coded.

Enumeration errors are difficult to control or even measure. But to some extent they can be identified by computer checking of the information on the characteristics of individual persons. This is known as computer editing and entails testing the data for errors and amending the data automatically by computer or listing the errors for manual amendment. The results of the editing provide an additional indication of the quality of the enumeration.

The editing procedure of the 1981 Census consisted of two parts, validation and imputation. Validation was restricted to simple checks and aimed at ensuring (a) that the structure of the data record was correct, and no records were omitted, duplicated, or out of sequence; (b) all codes had values within the acceptable range; and (c) the information recorded in respect of basic variables such as age were consistent with other characteristics such as educational attainment, activity status, and age of other persons in the households. When a possible error was identified the data record was rejected from the main body of data and amended manually before it was accepted as input. Table 10.9 shows the percentage of the different types of such errors during validation.

Table 10.9 Percentage of possible errors identified during validation by type of questionnaires

	Percentage of Errors by Type of Questionnaires	
	Long form for 20% sample %	Short form for simple headcount %
Errors involving incorrect data structure (as a percentage of all households in errors)		
Duplication of households	0.4	1.2
Omission or mis-order of records resulting in incorrect structure of data records within the household	0.5	0.9
Errors involving invalid information (as a percentage of all data fields checked)		
Codes out of the acceptable range	0.6	0.1
Inconsistent codes due to errors in one of the variables	1.1	0.8

To understand, in greater detail, the nature of the identified errors, the invalid information extracted from a 25% sample of all detailed questionnaires was further analysed. The errors were scrutinised and classified into one of the following categories: (i) key-punching errors; (ii) erroneous codes inconsistent with the recorded answers; (iii) omission of codes; (iv) enumerators asking respondents the wrong questions and mis-interpretation of concepts, as for example, asking a person aged 10 about his income from employment; (v) special scrutiny but found to be correct; and (vi) indeterminate cases. The analysis below also excludes some 5.2% of all cases of potential errors contributed by unusual combination of codes which had been identified for scrutiny but subsequently found to be correct.

Table 10.10 Analysis of invalid data identified during validation by nature of error

<i>Nature of Error</i>	<i>Percentage of errors*</i>
Key-punching error	2.0
Erroneous codes	70.8
Omission of codes	11.7
Enumeration errors	2.7
Indeterminate cases	12.8

* Based on households with only one type of error identified. All invalid data in the same household are regarded as 1 error.

Table 10.10 shows that the majority of the invalid data were caused by wrong coding and omission of codes, which, in the future, can be reduced by better control of the coding procedures. The enumeration errors in the table relate to the consistency checks of basic variables only, and exclude other enumeration errors identified at a second stage of computer editing, i.e. imputation.

Imputation identified inconsistencies between different characteristics in a record and removed them by the assignment of new codes or values. The imputation logic consisted of a series of tests by which various codes were checked against previously accepted codes; any codes found to be inconsistent were given new codes by reference to other variables in the record. The percentage of records which were imputed and given new codes, the imputation rate, is regarded as a measure of the quality of the census results with regard to the consistency. It is also the proportion of households or persons for which values of the respective characteristics were suspect. The imputation rates depend on the relative stringency or lenience of pre-specified consistency rules.

Table 10.11 Imputation rate for different types of variables

<i>Variable</i>	<i>Imputation rate*</i> %
Household data	
Type of living quarter	0.1
Type of household	—
Usual household size	0.2
Household size	—
Type of accommodation	2.3
Tenure	1.4
Rent	2.9
Household composition	—
Overall	0.8
Personal data	
Sex	—
Month and year of birth	—
Place of birth	—
Place of origin	—
Year of arrival in H.K.	0.5
No. of children ever born	2.5
Marital status	0.3
Educational attainment	1.1
Whether studying	1.1
Field of education	1.5
Activity status	3.9
Hours of work	2.3
Occupation	3.4
Industry	5.4
Secondary occupation	0.4
Whether seeking more work	4.5
Income from main employment	5.7
Income from secondary employment	3.1
Other cash income	2.7
Disablement	—
Overall	1.7

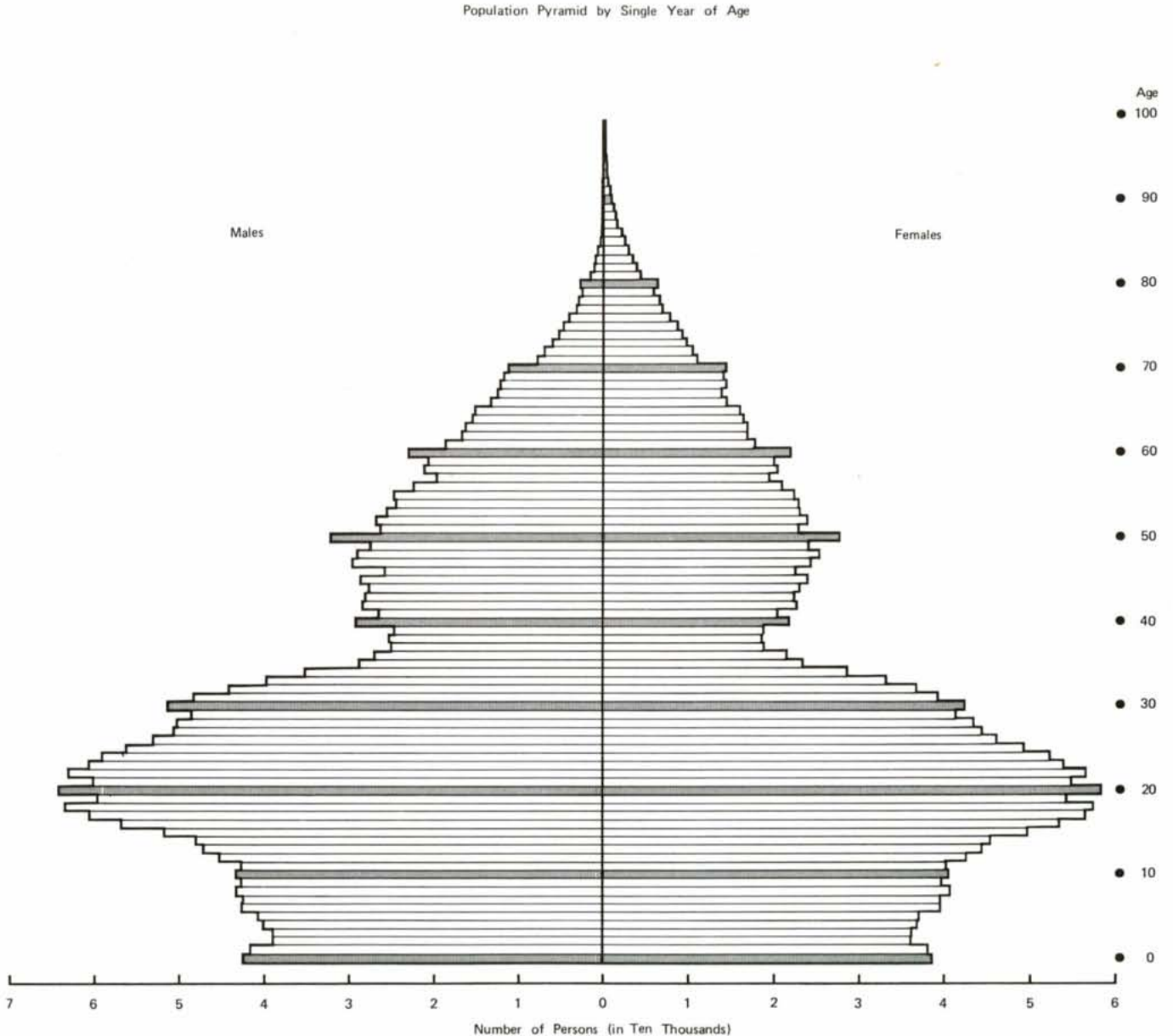
* Number of records with imputed values as a percentage of the total number of records that had been checked.

Analytical Evaluation

In this section we discuss a number of examples in which the accuracy of the final census results are assessed using analytical techniques. The method of assessment is either by internal comparison of data or checking with data from an independent source of information. While such techniques are useful for detecting the existence of errors in the published census results, the quantification of the precise degree of inaccuracy is always difficult because of the imprecise nature of the external data adopted for the comparison.

Accuracy of Age Data

A common error found in age data from population censuses is the imprecise reporting of age resulting in the problem of 'age heaping' with noticeable concentrations of reported ages at some particular terminal digits such as 0 and 5. The following population pyramid by single years of age from the 1981 Census shows that although there are some small spikes in the ages ending with 0, particularly from age 50 onwards, the phenomenon of age heaping was not serious.



One way to measure digital preference in reported ages is to calculate the Myer's index. This is a summary measure of the discrepancy of the census age data from the 'normal undistorted' situation in which one expects almost equal sums at each terminal digit, hence giving almost 10% of the population for every digit. A deviation of the actual percentage from 10.0% measures the preference for or against each digit. The Myer's index is calculated by taking one half of the sum of the absolute values of all such deviations. It has a theoretic value ranging from 0, when there is no preference for any digit, to the maximum 90, when all ages end with the same terminal digit. Table 10.12 shows the percentage of persons by the terminal digits of their reported ages.

Table 10.12 Age score test for the 1981 Census

<i>Age ending in</i>	<i>Percentage of Persons Reporting</i>		
	<i>Male</i>	<i>Female</i>	<i>Total</i>
0	11.0	10.9	11.1
1	10.1	9.9	10.0
2	10.2	10.2	10.2
3	10.0	10.0	10.0
4	9.8	9.9	9.8
5	9.7	9.7	9.7
6	9.5	9.6	9.5
7	9.6	9.7	9.6
8	10.1	10.1	10.1
9	10.0	10.0	10.0
Total	100.0	100.0	100.0
<i>Myer's index</i>	1.4	1.2	1.4

The digital preference for males and females are very similar. Both sexes had a preference for ages ending in digit 0. Unlike previous censuses, the preference for reporting ages ending in 5 was not high. The overall Myer's indices of 1.4 for males and 1.2 for females are lower than the corresponding figures for 1971 of 3.1 and 2.7, respectively.

In the above internal comparison of data it is difficult to discriminate between enumeration errors and irregularities due to actual fluctuations in factors of population change. The above results should therefore be interpreted with this point in mind. Likewise, the validity of the Myer's index depends entirely on the assumption of a uniform 10.0% for each digit in the undistorted distribution.

Total Headcount

The overall headcount from the population census can be checked against an independent estimate of the total headcount obtained by the 'demographic balancing equation'. This is done by taking the previous count from the 1976 By-census and adjusting it by reference to the number of births and deaths during the intercensal period – such data being available from the vital statistics – and also taking account of net inward migration as indicated by the Immigration Department records. Table 10.13 below shows that the actual difference between the census count and the independent estimate is less than 1%.

Table 10.13 Comparison between the 1981 Census headcount and the independent estimate

<i>Independent Estimate</i>	<i>Number in million</i>
By-census population as at 2nd August 1976†	4.44
Estimated net population change during the intercensal period (3rd August 1976–9th March 1981)	0.65
Births	0.38 million
less Deaths	0.11 million
plus Net migration and Vietnamese refugees	0.38 million
Estimated population as at census reference date	5.09
<i>Census Count</i>	
De facto population plus residents temporarily away to China/Macau*	5.10

* Residents temporarily away to China/Macau holding Re-entry permits are included because they are not counted in the net migration figure under the independent estimate. The corresponding number of persons absent in 1976 is unknown but can be assumed to be much smaller than in 1981.

† Including adjustment for undercount in the 1976 By-census.

Coverage of Children Aged under 5

Under-enumeration is often serious among infants and younger children. In Hong Kong since vital registration of births and deaths is virtually complete it is possible to estimate independently the number of survived births aged 0–4 at the time of the census. This independent estimate, after adjustment to allow for net migration, can be used to evaluate the census data on the number of persons in this age group.

Table 10.14 Comparison of census data on persons aged under 5 with independent estimate based on vital and migration statistics

<i>Estimate Based on Vital and Migration Statistics</i>	0	<i>Age in 1981 Census (if survived)</i>				<i>Total</i>
		1	2	3	4	
		<i>(number in thousands)</i>				
Total births during previous 5 years by period of birth	85.1	82.7	81.8	79.1	79.4	408.1
Total deaths of young persons who would have been aged 0–4 if they had survived to the census date	0.8	1.0	1.1	1.2	1.3	5.4
Survived births	84.3	81.7	80.7	77.9	78.1	402.7
Net migration	-0.7	0.7	2.0	2.2	2.2	6.4
Final Estimate	83.6	82.4	82.7	80.1	80.3	409.1
<i>Census Results</i>						
De facto population plus residents temporarily away to China/Macau*	82.0	80.9	76.1	76.2	78.1	393.4
<i>Difference</i>						
(Census – Independent Estimate)	-1.6	-1.5	-6.6	-3.9	-2.2	-15.8

* Persons temporarily away to China/Macau holding Re-entry permits are not accounted for in the net migration figure.

Note: Figures may not add up to the final estimate because of rounding.

Evaluation of Data on Disablement

The topic of disablement was first formally included in a census questionnaire in the 1976 By-census. Information on physical as well as mental disability was collected from the householders using a 'pictorial description' approach. In this method, the enumerators showed the head of the household (or some responsible person in the household) pictures of different types of disabled persons and asked whether there were any such persons in the household. Exceptions to the pictorial description were the mentally ill and mentally retarded; it was not felt that these cases could appropriately be reduced to pictorial form and they were represented by written descriptions instead. By using this simple means of obtaining the information one could avoid respondents' embarrassment and overcome the limitations on the part of enumerators to explain and respondents to understand the nature of various types of disability.

Analysis of the By-census results indicated that where the information was susceptible to simple questions and answers the results could be regarded as reasonably accurate. The information was, however, less reliable for more complicated cases such as mental illness where there is scope for classification into different degrees of severeness. In these cases, it was felt that the householders would have tended to report only those persons with severe symptoms.

The 1981 Census adopted the same approach for obtaining information on disability. A similar pictorial description was used to illustrate different kinds of disabled persons. However, since it was intended that only those severe cases of blindness, deafness, mental illness and mental retardation should be included, enumerators were instructed to follow-up any such reported cases with questions for checking whether or not the disabled person had the handicaps described in the definition of that particular type of disability; for practical reasons severeness was decided by reference to observable handicaps which enumerators could comprehend.

The approach was tested in the 1980 Pilot Census to gauge the extent to which selected types of disabled persons could be successfully picked up by the method. For this purpose, the Pilot Census included a special sample of addresses that were known to contain disabled persons. These addresses were assigned to enumerators who were not aware of the existence nor the whereabouts of the pre-selected disabled persons. After the enumeration was completed, the information obtained in the enquiry was matched against the original list of disabled persons on a one-to-one basis to determine if these cases were properly reported in the survey. The following results were obtained.

Table 10.15 Percentage of known cases identified as disabled in the 1980 Pilot Census

<i>Type of Disablement</i>	<i>Percentage</i>
Severe blindness	82
Severe deafness	84
Mental illness	15
Mental retardation	90

In view of the importance of the data on disablement and the difficulty involved in collecting this information, an exercise to evaluate the data from the 1981 Census on the above types of disablement is being conducted and the findings of this evaluation will be given in a separate report.

PART E
SUMMARY TABLES

I Demographic Characteristics

Table I 1 Enumerated population and resident population; 1981 Census

<i>Type</i>	<i>Enumerated* population</i>	<i>Resident population</i>
Resident population enumerated in the Census	4 986 560	4 986 560
Transients†	13 906	—
Vietnamese refugees pending permanent resettlement overseas	20 600	—
Residents away from Hong Kong on reference date	—	123 252
Grand total	5 021 066	5 109 812

* Population on the reference date of 9th March 1981.

† Transients are defined as people who had been in Hong Kong for less than 20 days.

Table I 2 Total population from censuses since 1921

<i>Year</i>	<i>Total population</i>	<i>Absolute increase</i>	<i>Average annual growth</i>
			%
1921	625 166		
1931	840 473	215 307	3.0
1961	3 129 648	2 289 175	*
1971	3 936 630	806 982	2.3
1976	4 402 990	466 360	2.1
1981	4 986 560	583 570	2.8

* Omitted because 1931–61 includes the war years, when the population changed erratically.

Table I 3 Components of population growth; 1951–1981

<i>Period (mid-year)</i>	<i>Natural increase</i>		<i>Net migration</i>		<i>Population growth</i>	
		%		%		%
1951–1961	730 600	63.4	422 200	36.6	1 152 800	100.0
1961–1971	761 800	86.8	115 400	13.2	877 200	100.0
1971–1976	296 600	74.4	101 900	25.6	398 500	100.0
1976–1981	290 000	42.0	400 000	58.0	690 000	100.0

Source: Mid-year Population Estimates.

Table I 4 Distribution of population by age group and sex; 1961, 1971 and 1981

<i>Age Group</i>	<i>Sex</i>	<i>Population</i>		
		<i>1961</i>	<i>1971</i>	<i>1981</i>
Under 15	M	664 015	720 120	642 365
	F	613 020	687 784	595 142
	T	1 277 035	1 407 904	1 237 507
15-24	M	201 482	392 868	600 204
	F	166 356	371 329	547 553
	T	367 838	764 197	1 147 757
25-44	M	508 754	487 336	751 273
	F	446 354	419 683	614 309
	T	955 108	907 019	1 365 582
45-64	M	207 400	341 139	477 733
	F	234 349	338 799	431 172
	T	441 749	679 938	908 905
65 and over	M	26 128	59 139	132 593
	F	61 790	118 433	194 216
	T	87 918	177 572	326 809
Total	M	1 607 779	2 000 602	2 604 168
	F	1 521 869	1 936 028	2 382 392
	T	3 129 648	3 936 630	4 986 560

Table I 5 Percentage distribution of population by age group, mean age and median age; 1961, 1971 and 1981

<i>Age Group</i>	<i>Population</i>		
	<i>1961</i>	<i>1971</i>	<i>1981</i>
	%	%	%
Under 15	40.8	35.8	24.8
15-24	11.8	19.4	23.0
25-44	30.5	23.0	27.4
45-64	14.1	17.3	18.2
65 and over	2.8	4.5	6.6
Total	100.0	100.0	100.0
<i>Mean age</i>	25.2	27.4	30.3
<i>Median age</i>	23.2	21.7	26.0

Table I 6 Dependency ratios – ratio (per 1 000) of population under 15 or aged 65 and over to population aged 15-64; 1961, 1971 and 1981

<i>Age Group</i>	<i>Dependency Ratio</i>		
	<i>1961</i>	<i>1971</i>	<i>1981</i>
	<i>(per 1 000 population aged 15-64)</i>		
Aged under 15	724	599	362
Aged 65 and over	50	76	95
Overall	774	675	457

Table I 7 Average annual growth rates of population by age group; 1961–1981

<i>Age Group</i>	<i>Average Annual Growth Rate of Population</i>		
	<i>1961–1971</i>	<i>1971–1981</i>	<i>1961–1981</i>
	%	%	%
Under 15	1.0	-1.3	-0.2
15–24	7.6	4.2	5.9
25–34	-2.4	8.1	2.7
35–44	1.3	-0.4	0.5
45–54	3.6	2.2	2.9
55–64	5.9	3.9	4.9
65 and over	7.3	6.3	6.8
Overall	2.3	2.4	2.4

Table I 8 Sex ratios – males per 1 000 females; 1921–1981

<i>Number of Males per 1 000 Females</i>						
<i>1921</i>	<i>1931</i>	<i>1961</i>	<i>1966</i>	<i>1971</i>	<i>1976</i>	<i>1981</i>
1 580	1 348	1 056	1 029	1 033	1 046	1 093

Table I 9 Sex ratios – males per 1 000 females by age group; 1961, 1971 and 1981

<i>Age Group</i>	<i>Number of Males per 1 000 Females</i>		
	<i>1961</i>	<i>1971</i>	<i>1981</i>
Under 5	1 060	1 055	1 093
5– 9	1 076	1 042	1 080
10–14	1 126	1 046	1 067
15–19	1 205	1 055	1 078
20–24	1 216	1 062	1 114
25–29	1 175	1 237	1 155
30–34	1 153	1 225	1 219
35–39	1 105	1 120	1 316
40–44	1 121	1 097	1 284
45–49	1 072	1 071	1 184
50–54	942	1 071	1 138
55–59	747	990	1 067
60–64	589	825	1 014
65 and over	423	499	683
Overall	1 056	1 033	1 093

Table I 10 Percentage distribution of population by age group and place of birth; 1971 and 1981

Age Group	Population by Place of Birth							
	1971				1981			
	Hong Kong	China	Else-where	Total	Hong Kong	China	Else-where	Total
	%	%	%	%	%	%	%	%
Under 15	95.2	3.7	1.1	100.0	90.7	7.4	1.9	100.0
15-24	71.8	26.5	1.7	100.0	81.1	17.1	1.8	100.0
25-34	30.6	64.4	5.0	100.0	57.1	38.0	4.9	100.0
35-44	19.2	77.8	3.0	100.0	23.9	68.2	7.9	100.0
45-54	14.2	83.5	2.3	100.0	18.0	78.4	3.6	100.0
55-64	11.9	86.6	1.5	100.0	13.3	84.4	2.3	100.0
65 and over	10.9	87.9	1.2	100.0	11.4	87.1	1.5	100.0
Total	56.4	41.6	2.0	100.0	57.2	39.6	3.2	100.0

Table I 11 Distribution of population by place of origin; 1971 and 1981

Place of Origin	Population			
	1971	%	1981	%
Hong Kong	185 699	4.7	124 279	2.5
China:				
Guangzhou, Macao and adjacent places	2 072 083	52.7	2 455 749	49.3
Siyi	684 774	17.4	814 309	16.3
Chaozhou	391 454	9.9	566 044	11.4
Elsewhere in Guangdong	250 215	6.4	470 288	9.4
Elsewhere in China	284 793	7.2	454 985	9.1
Sub-total	3 683 319	93.6	4 761 375	95.5
India, Pakistan and Sri-Lanka	8 727	0.2	11 867	0.2
United Kingdom	29 004	0.7	25 703	0.5
U.S.A.	4 168	0.1	5 483	0.1
Other countries	25 713	0.7	57 853	1.2
Total	3 936 630	100.0	4 986 560	100.0

Table I 12 Percentage distribution of population aged 15 and over by marital status and sex; 1961, 1971 and 1981

Marital Status	Population Aged 15 and Over					
	Crude percentage (not standardised)			Standardised percentage*		
	1961	1971	1981	1961	1971	1981
	%	%	%	%	%	%
Male						
Never married	35.3	42.6	43.2	41.2	45.0	43.2
Currently married	62.3	55.5	54.1	55.7	52.9	54.1
Widowed/Divorced	2.4	1.9	2.7	3.1	2.1	2.7
Total	100.0	100.0	100.0	100.0	100.0	100.0
Female						
Never married	18.7	29.5	32.6	27.0	30.7	32.6
Currently married	67.6	61.8	56.0	57.8	60.5	56.0
Widowed/Divorced	13.7	8.7	11.4	15.2	8.8	11.4
Total	100.0	100.0	100.0	100.0	100.0	100.0

* Using the 1981 age and sex distribution of the total population aged 15 and over as standard.

Table I 13 Percentage of population ever-married by age group and sex; 1961, 1971 and 1981

Age Group	Percentage of Population Ever-married by Sex					
	Male			Female		
	1961	1971	1981	1961	1971	1981
	%	%	%	%	%	%
15-19	1.3	0.5	1.3	6.4	2.9	3.4
20-24	13.8	7.9	10.6	51.4	32.4	28.7
25-29	43.8	36.5	42.5	84.5	79.9	69.7
30-34	73.2	65.5	72.7	94.0	94.4	89.0
35-39	86.6	80.5	84.8	95.0	97.0	95.5
40-44	92.6	88.7	88.1	94.1	97.1	97.3
45-49	94.9	92.8	90.8	92.6	96.2	97.7
50 and over	96.6	96.3	94.6	94.0	93.6	95.0

Table I 14 Percentage of population currently married by age group and sex; 1961, 1971 and 1981

Age Group	Percentage of Population Currently Married by Sex					
	Male			Female		
	1961	1971	1981	1961	1971	1981
	%	%	%	%	%	%
15-19	1.3	0.4	1.3	6.4	2.9	3.4
20-24	13.6	7.9	10.4	51.0	32.3	28.4
25-29	43.3	36.3	41.9	83.4	79.5	68.9
30-34	72.1	65.0	71.8	91.4	93.4	87.5
35-39	84.8	79.4	83.5	90.0	95.1	92.9
40-44	89.9	87.0	86.0	84.5	92.9	93.0
45-49	91.4	90.4	88.0	75.5	89.1	90.1
50 and over	88.5	90.2	85.8	51.6	67.2	59.1

Table I 15 Percentage of population ever-married by age group, sex and educational attainment; 1981

Age Group	Percentage of Population Ever-married by Level of Education			
	No schooling/ Kindergarten	Primary	Secondary/ Matriculation	Post-secondary/ University
	%	%	%	%
<i>Male</i>				
15-19	5.9	3.0	1.0	0.6
20-24	17.4	15.7	9.5	3.3
25-29	46.3	43.7	43.7	32.4
30-34	68.3	69.1	74.9	74.7
35-39	75.2	81.3	87.3	90.5
40-44	81.1	85.6	90.5	93.7
45-49	87.5	90.3	92.1	93.4
50 and over	92.9	94.9	95.6	93.9
<i>Female</i>				
15-19	14.0	8.1	2.4	0.3
20-24	54.2	41.6	23.5	7.0
25-29	85.5	78.5	64.8	46.2
30-34	96.0	93.4	85.8	75.6
35-39	98.4	97.8	93.3	89.3
40-44	98.5	98.6	95.4	92.4
45-49	98.6	98.4	95.0	91.3
50 and over	94.7	96.4	94.7	87.8

Table I 16 Percentage of population ever-married, currently married, widowed/divorced by educational attainment and sex; 1981

<i>Educational Attainment</i>	<i>Percentage of Population Ever-married</i>		<i>Percentage of Population Currently Married</i>		<i>Percentage of Population Widowed/Divorced</i>	
	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>
	%	%	%	%	%	%
<i>Crude Percentage (not standardised)</i>						
No schooling/Kindergarten	83.8	94.0	75.4	62.4	8.4	31.6
Primary	70.2	78.3	66.4	70.5	3.8	7.8
Secondary/Matriculation	41.5	42.5	40.4	40.6	1.1	1.9
Post-secondary/University	59.4	52.9	57.5	50.1	1.9	2.8
<i>Standardised Percentage*</i>						
No schooling/Kindergarten	56.6	76.0	52.9	62.9	3.7	13.1
Primary	57.2	72.2	54.4	61.8	2.8	10.4
Secondary/Matriculation	57.7	64.9	55.4	56.6	2.3	8.3
Post-secondary/University	55.2	55.8	52.9	48.7	2.3	7.1

* Using the 1981 age and sex distribution of the total population aged 15 and over as standard.

Table I 17 Percentage of ever-married population widowed by age group and sex; 1961, 1971 and 1981

<i>Age Group</i>	<i>Percentage of Ever-married Population Widowed by Sex</i>					
	<i>Male</i>			<i>Female</i>		
	<i>1961</i>	<i>1971</i>	<i>1981</i>	<i>1961</i>	<i>1971</i>	<i>1981</i>
	%	%	%	%	%	%
15-24	0.4	0.1	0.4	0.4	0.2	0.4
25-29	0.4	0.2	0.3	0.8	0.3	0.4
30-34	0.7	0.3	0.2	2.1	0.8	0.8
35-39	1.2	0.7	0.5	4.5	1.6	1.7
40-44	1.9	1.3	1.0	9.4	3.8	3.4
45-49	2.6	1.8	1.7	17.5	6.8	6.6
50 and over	7.3	5.7	8.3	44.0	27.7	36.7

Table I 18 Percentage of ever-married population divorced or separated by age group and sex; 1961, 1971 and 1981

<i>Age Group</i>	<i>Percentage of Ever-married Population Divorced or Separated by Sex</i>					
	<i>Male</i>			<i>Female</i>		
	<i>1961</i>	<i>1971</i>	<i>1981</i>	<i>1961</i>	<i>1971</i>	<i>1981</i>
	%	%	%	%	%	%
15-24	0.7	0.3	1.1	0.3	0.2	0.7
25-29	0.7	0.4	1.0	0.5	0.2	0.7
30-34	0.8	0.5	1.0	0.6	0.3	0.9
35-39	1.0	0.7	1.0	0.7	0.4	1.0
40-44	1.0	0.7	1.5	0.8	0.5	1.0
45-49	1.0	0.7	1.3	0.9	0.6	1.1
50 and over	1.1	0.6	1.0	1.2	0.5	1.1

Table I 19 Estimated mid-year population and birth rates; 1961–1981

Year	Mid-year population	Crude birth rate	Women aged 15 to 49	General fertility rate
		(per 1 000 population)		(per 1 000 women aged 15 to 49)
1961	3 168 100	35.0	714 900	155.1
1971	4 045 300	19.7	919 800	86.7
1972	4 115 700	19.5	948 200	84.7
1973	4 212 600	19.5	983 300	83.6
1974	4 319 600	19.3	1 022 300	81.8
1975	4 395 800	18.2	1 050 800	75.9
1976	4 443 800	17.7	1 077 100	72.9
1977	4 509 800	17.7	1 111 300	72.0
1978	4 597 000	17.6	1 148 100	70.5
1979	4 819 400	17.0	1 215 900	67.4
1980	4 999 800	17.1	1 270 700	67.1
1981	5 133 800	16.9	1 316 800	65.8

Source: (i) *Mid-year Population Estimates, 1961–1981*.
(ii) *Birth Statistics, 1961–1981*.

Table I 20 Age-specific fertility rates by age group; 1961–1981

Year	Number of Live Births per 1 000 Females by Age of Mother						
	15–19	20–24	25–29	30–34	35–39	40–44	45–49
1961	47	238	313	231	139	57	9
1971	17.0	145.0	243.0	162.2	83.3	28.4	3.6
1972	17.4	139.3	248.0	145.8	77.4	25.8	3.2
1973	17.9	132.5	243.3	141.8	72.4	23.5	3.2
1974	18.8	133.3	219.2	137.4	65.7	21.1	2.5
1975	17.8	121.5	198.6	126.0	54.5	18.3	2.4
1976	17.4	109.7	192.1	119.6	48.9	14.6	1.5
1977	17.4	105.4	185.9	115.4	45.5	13.0	1.1
1978	15.3	99.4	178.5	113.8	43.5	11.4	1.1
1979	12.8	90.4	166.2	109.8	42.3	9.3	0.9
1980	12.4	88.8	161.4	104.4	39.5	8.5	0.8
1981	11.7	86.8	154.7	98.3	34.7	6.9	0.7

Source: (i) *Freedman, R. and Adlakha, A.L. 'Recent fertility declines in Hong Kong: the role of changing age structure.'* *Population Studies*; Vol. 22 No. 2, 1968, NP 181–198.
(ii) *Birth Statistics, 1971–1981*.

Table I 21 Total fertility rates (per woman); 1961–1981

<i>Number of Live Births per Woman</i>				
<i>1961</i>	<i>1971</i>	<i>1976</i>	<i>1980</i>	<i>1981</i>
5.17	3.41	2.52	2.08	1.97

Source: (i) Freedman, R. and Adlakha, A.L. 'Recent fertility declines in Hong Kong: the role of changing age structure.' Population Studies; Vol. 22 No. 2, 1968, NP 181–198.
(ii) Birth Statistics, 1971–1981.

Table I 22 Crude birth rates and standardised birth rates (per 1 000 population); 1961, 1971 and 1981

<i>Year</i>	<i>Crude birth rate</i>	<i>Standardised birth rate*</i>	<i>Standardised birth rate†</i>
1961	35.0	—	—
1971	19.7	24.0	27.1
1981	16.9	13.9	17.5

* Using the 1961 age and sex distribution of population as standard.

† Using the 1961 age and sex distribution of the currently married population as standard.

Source: Birth Statistics, 1961, 1971 and 1981.

Table I 23 Percentage distribution of live births by birth order; 1971–1981

<i>Year</i>	<i>Number of Live Births by Birth Order</i>				<i>Total</i>
	<i>First birth</i>	<i>Second birth</i>	<i>Third birth</i>	<i>Fourth or higher order birth</i>	
	<i>%</i>	<i>%</i>	<i>%</i>	<i>%</i>	<i>%</i>
1971	26.5	23.5	16.8	33.2	100.0
1972	31.7	22.7	16.5	29.1	100.0
1973	32.9	24.9	16.2	26.0	100.0
1974	37.6	25.8	15.2	21.4	100.0
1975	39.8	26.8	15.0	18.4	100.0
1976	38.9	30.6	15.1	15.4	100.0
1977	41.2	29.9	15.4	13.5	100.0
1978	40.3	31.9	15.7	12.1	100.0
1979	41.2	32.3	15.7	10.8	100.0
1980	43.1	32.5	15.0	9.4	100.0
1981	43.7	33.5	14.6	8.2	100.0

Source: Birth Statistics, 1971–1981.

Table I 24 Percentage distribution of ever-married women aged 15 to 49 by number of live births; 1971, 1976 and 1981

<i>Number of Live Births</i>	<i>Ever-married Women Aged 15 to 49</i>		
	<i>1971</i>	<i>1976</i>	<i>1981</i>
	<i>%</i>	<i>%</i>	<i>%</i>
0	8.1	10.0	12.6
1	15.0	17.3	20.2
2	17.1	19.9	25.1
3	16.1	16.5	17.3
4	14.8	13.6	11.2
5	11.6	9.6	6.5
6 and over	17.3	13.1	7.1
Total	100.0	100.0	100.0
<i>Mean number of live births</i>	3.4	3.0	2.5

Table I 25 Mean number of live births to ever-married women by age group and educational attainment; 1971 and 1981

<i>Age Group</i>	<i>Mean Number of Live Births by Level of Education</i>			
	<i>No schooling/ Kindergarten</i>	<i>Primary</i>	<i>Secondary/ Matriculation</i>	<i>Post- secondary/ University</i>
<i>1971</i>				
15-19	0.9	0.7	0.6	0.6
20-24	1.5	1.3	1.0	0.6
25-29	2.8	2.2	1.6	1.2
30-34	3.8	3.2	2.4	1.8
35-39	4.4	3.8	3.0	2.4
40-44	4.6	4.1	3.4	2.7
45-49	4.3	4.0	3.7	3.0
Standardised mean* (15-49)	3.6	3.1	2.5	1.9
<i>1981</i>				
15-19	0.8	0.7	0.4	0.8
20-24	1.3	1.1	0.7	0.4
25-29	2.2	1.8	1.2	0.7
30-34	3.3	2.5	1.9	1.4
35-39	4.0	3.2	2.4	1.9
40-44	4.4	3.6	2.7	2.1
45-49	4.7	3.9	3.1	2.4
Standardised mean* (15-49)	3.3	2.7	2.0	1.5

* Using the 1981 age and sex distribution as standard.

Table I 26 Mean number of live births to ever-married women by age group and whether working; 1971 and 1981

Age Group	Mean Number of Live Births by Whether Working			
	1971		1981	
	Working	Not working	Working	Not working
15-19	0.6	0.8	0.4	0.6
20-24	0.9	1.3	0.6	1.2
25-29	1.7	2.2	1.1	1.8
30-34	2.9	3.2	2.0	2.4
35-39	3.7	3.9	2.9	3.0
40-44	4.0	4.4	3.4	3.6
45-49	3.7	4.4	3.8	4.3
Standardised mean* (15-49)	2.8	3.2	2.3	2.7

* Using the 1981 age and sex distribution as standard.

Table I 27 Mean number of live births to ever-married working women# by age group and income from main employment; 1981

Age Group	Mean Number of Live Births by Income from Main Employment (HK\$)					
	Under 600	600-999	1,000-1,999	2,000-2,999	3,000-4,999	5,000 and over
15-19	0.8	0.4	0.4	0.5	0.4	—
20-24	1.0	0.6	0.6	0.5	0.4	0.4
25-29	1.9	1.3	1.0	0.9	0.8	0.6
30-34	2.7	2.3	2.0	1.5	1.4	1.2
35-39	3.3	2.9	2.9	2.3	2.0	1.9
40-44	3.7	3.5	3.3	2.7	2.4	2.2
45-49	4.0	3.7	3.8	3.5	2.8	2.6
Standardised mean* (15-49)	2.8	2.4	2.2	1.9	1.6	1.5

* Using the 1981 age and sex distribution as standard.

Excluding unpaid workers.

Table I 28 Projected age-specific fertility rates per 1 000 females by age group; 1986-2001

Year	Number of Live Births per 1 000 Females by Age of Mother						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
1979-81*	12.3	88.6	160.5	103.7	38.6	8.2	0.8
1986	11.7	73.6	152.7	102.1	31.4	5.1	0.5
1991	11.7	69.3	145.8	99.1	28.4	3.9	0.4
1996	11.7	69.3	143.5	96.2	26.8	3.3	0.3
2001	11.7	69.3	142.9	93.9	25.9	3.0	0.3
	Index of Rate†						
1979-81	100	100	100	100	100	100	100
1986	95	83	95	98	81	62	65
1991	95	78	91	96	74	48	50
1996	95	78	89	93	69	40	39
2001	95	78	89	91	67	36	34

* Past figures based on birth statistics.

† Rates for 1979-81 are taken as base (100). Indexes are computed on unrounded figures.

Source: (i) Birth Statistics, 1979-1981.
(ii) 1981 Census-based Population Projections.

Table I 29 Projected total fertility rates (per woman); 1986–2001

	<i>Number of Live Births per Woman</i>			
	<i>1986</i>	<i>1991</i>	<i>1996</i>	<i>2001</i>
	1.88	1.79	1.75	1.73

Source: 1981 Census-based Population Projections.

Table I 30 Age-sex-specific death rates per 1 000 population by age group and sex; 1961–1981

<i>Age Group</i>	<i>Death Rate (per 1 000 population)</i>					<i>Index of Rate*</i>				
	<i>1961</i>	<i>1966</i>	<i>1971</i>	<i>1976</i>	<i>1981</i>	<i>1961</i>	<i>1966</i>	<i>1971</i>	<i>1976</i>	<i>1981</i>
<i>Male</i>										
Under 1	43.7	27.0	21.2	16.2	10.7	100	62	48	37	24
1– 4	4.3	2.4	1.0	0.8	0.7	100	56	25	20	15
5– 9	1.0	0.5	0.5	0.4	0.2	100	55	49	45	25
10–14	0.8	0.6	0.4	0.3	0.3	100	83	58	45	41
15–19	0.8	1.0	0.7	0.6	0.5	100	127	97	75	72
20–24	1.4	1.4	1.2	1.0	0.7	100	99	82	69	49
25–29	1.7	1.6	1.7	1.2	0.9	100	96	100	68	56
30–34	2.3	2.2	2.0	1.8	1.2	100	94	89	79	51
35–39	3.2	2.8	2.8	2.2	1.7	100	87	86	69	53
40–44	4.9	4.5	4.3	3.4	2.8	100	93	89	71	58
45–49	7.6	6.8	6.2	5.8	4.7	100	89	82	76	61
50–54	13.3	11.6	10.4	8.9	7.7	100	87	78	67	57
55–59	20.0	17.5	17.7	14.1	12.2	100	88	88	70	61
60–64	33.6	32.9	28.8	23.7	19.6	100	98	86	71	58
65–69	41.8	39.9	43.0	39.6	30.8	100	95	103	95	74
70–74	60.3	70.8	61.0	60.3	47.5	100	117	101	100	79
75 and over	98.9	100.9	106.0	99.7	81.9	100	102	107	101	83
<i>Female</i>										
Under 1	33.4	21.8	16.1	11.9	9.2	100	65	48	36	28
1– 4	4.3	2.2	0.8	0.8	0.4	100	51	19	18	9
5– 9	0.8	0.4	0.3	0.3	0.2	100	52	43	41	24
10–14	0.5	0.4	0.3	0.3	0.3	100	94	67	54	63
15–19	0.6	0.5	0.5	0.4	0.2	100	85	82	66	40
20–24	0.8	0.7	0.7	0.5	0.4	100	93	84	65	52
25–29	1.3	1.0	0.8	0.7	0.6	100	80	62	55	44
30–34	1.6	1.3	1.1	1.1	0.7	100	83	68	69	44
35–39	2.2	1.9	1.5	1.3	1.0	100	86	68	57	46
40–44	3.1	2.9	2.2	2.0	1.6	100	94	72	64	51
45–49	4.1	4.0	3.3	3.1	2.7	100	96	79	74	65
50–54	6.5	6.0	5.5	4.8	3.9	100	91	84	73	60
55–59	8.8	8.2	7.8	7.4	6.7	100	94	89	85	76
60–64	14.3	13.5	11.7	12.0	9.9	100	94	82	84	70
65–69	18.9	20.3	20.2	19.0	16.8	100	108	107	100	89
70–74	34.9	34.9	31.0	28.4	25.2	100	100	89	82	72
75 and over	75.5	76.4	73.4	71.5	65.7	100	101	97	95	87

* Rates for 1961 are taken as base (100). Indexes are computed on unrounded figures.

Source: Death Statistics, 1961–1981.

Table I 31 Actual and projected expectations of life at birth; 1961–2001

Year	Expectation of Life at Birth by Sex			Difference (female–male)
	Male		Female	
1961	63.6		70.5	6.9
1971	67.4		75.0	7.6
1972	68.1		75.6	7.5
1973	68.7		75.9	7.2
1974	69.1		76.0	6.9
1975	70.0		76.5	6.5
1976	69.7		76.5	6.8
1977	70.1		76.6	6.5
1978	70.6		76.7	6.1
1979	70.7		77.1	6.4
1980	71.7		77.5	5.8
1981	72.4		78.1	5.7
----- †				
1986	72.1		77.8	5.7
1991	72.3		78.0	5.7
1996	72.4		78.1	5.7
2001	72.4		78.2	5.8

† Figures below the broken line are derived from projections.

Source: (i) Death Statistics, 1961–1980/1981.
(ii) 1981 Census-based Population Projections.

Table I 32 Distribution of projected mid-year population (including net migration) by age group; 1986–2001

Age Group	Mid-year Population Including Net Migration							
	1986		1991		1996		2001	
		%		%		%		%
Under 15	1 343 000	23.6	1 455 500	23.3	1 516 200	22.6	1 461 700	20.6
15–24	1 019 300	17.9	891 200	14.3	899 100	13.4	985 400	13.9
25–34	1 161 000	20.4	1 264 500	20.3	1 119 600	16.7	992 500	14.0
35–44	712 700	12.5	1 016 000	16.3	1 256 200	18.7	1 358 300	19.1
45–54	539 400	9.5	553 500	8.9	756 500	11.3	1 050 600	14.8
55–64	470 500	8.3	515 000	8.2	521 900	7.7	535 800	7.5
65 and over	441 700	7.8	539 500	8.7	642 900	9.6	722 400	10.1
Total	5 687 600	100.0	6 235 200	100.0	6 712 400	100.0	7 106 700	100.0

Source: 1981 Census-based Population Projections.

Table I 33 Distribution of projected mid-year population (excluding net migration) by age group; 1986–2001

Age Group	Mid-year Population Excluding Net Migration							
	1986		1991		1996		2001	
		%		%		%		%
Under 15	1 287 200	23.6	1 347 600	23.4	1 366 900	22.8	1 276 800	20.8
15–24	1 010 100	18.5	856 400	14.9	823 600	13.8	875 600	14.3
25–34	1 095 300	20.1	1 159 800	20.1	1 005 900	16.8	853 300	13.9
35–44	659 700	12.1	903 800	15.7	1 079 200	18.0	1 142 700	18.6
45–54	513 400	9.4	487 200	8.5	638 800	10.7	875 500	14.3
55–64	459 400	8.4	489 000	8.5	471 900	7.9	448 300	7.3
65 and over	429 100	7.9	512 400	8.9	599 500	10.0	659 200	10.8
Total	5 454 200	100.0	5 756 200	100.0	5 985 800	100.0	6 131 400	100.0

Source: 1981 Census-based Population Projections.

Table I 34 Projected sex ratios – males per 1 000 females; 1986–2001

<i>Number of Males per 1 000 Females</i>				
<i>1986</i>	<i>1991</i>	<i>1996</i>	<i>2001</i>	
1 090	1 085	1 080	1 074	

Source: 1981 Census-based Population Projections.

Table I 35 Projected age-sex-specific death rates per 1 000 population by age group and sex; 1986–2001

<i>Age Group</i>	<i>Death Rate (per 1 000 population)</i>					<i>Index of Rate*</i>				
	<i>1978–1980</i>	<i>1986</i>	<i>1991</i>	<i>1996</i>	<i>2001</i>	<i>1978–1980</i>	<i>1986</i>	<i>1991</i>	<i>1996</i>	<i>2001</i>
<i>Male</i>										
Under 1	13.3	10.4	10.3	10.2	10.1	100	78	77	77	76
1– 4	0.7	0.5	0.5	0.5	0.5	100	77	72	69	68
5– 9	0.3	0.3	0.3	0.3	0.3	100	93	93	93	93
10–14	0.3	0.3	0.3	0.3	0.3	100	94	93	93	93
15–19	0.5	0.5	0.5	0.5	0.5	100	100	100	100	100
20–24	0.9	0.9	0.9	0.9	0.9	100	100	100	100	100
25–29	1.1	1.1	1.1	1.1	1.1	100	100	100	100	100
30–34	1.4	1.4	1.4	1.4	1.4	100	100	100	100	100
35–39	2.0	1.8	1.7	1.7	1.7	100	89	88	88	88
40–44	3.1	2.7	2.7	2.7	2.7	100	89	88	88	88
45–49	5.4	5.0	4.9	4.9	4.8	100	93	90	89	89
50–54	8.6	7.6	7.4	7.3	7.3	100	88	86	85	84
55–59	13.9	13.3	13.3	13.1	13.0	100	96	95	94	93
60–64	21.1	18.7	18.1	17.7	17.3	100	89	86	84	82
65–69	35.4	33.3	32.9	32.4	32.0	100	94	93	92	90
70–74	50.9	46.9	46.7	46.3	46.1	100	92	92	91	90
75 and over	92.8	89.0	88.7	88.5	88.5	100	96	96	95	95
<i>Female</i>										
Under 1	10.6	9.0	9.0	9.0	9.0	100	85	84	84	83
1– 4	0.6	0.5	0.5	0.4	0.4	100	83	77	73	70
5– 9	0.2	0.2	0.2	0.2	0.2	100	90	87	85	83
10–14	0.2	0.2	0.2	0.2	0.2	100	77	74	72	71
15–19	0.3	0.3	0.3	0.3	0.3	100	100	100	100	100
20–24	0.5	0.5	0.5	0.5	0.5	100	100	100	100	100
25–29	0.6	0.5	0.5	0.5	0.5	100	84	84	84	84
30–34	0.8	0.7	0.7	0.7	0.6	100	88	86	85	84
35–39	1.1	1.0	0.9	0.9	0.9	100	91	87	83	80
40–44	1.7	1.7	1.6	1.6	1.5	100	96	93	91	90
45–49	2.8	2.5	2.5	2.4	2.4	100	91	90	88	86
50–54	4.2	3.9	3.8	3.7	3.7	100	92	90	89	86
55–59	7.2	6.9	6.8	6.7	6.7	100	95	94	93	92
60–64	11.0	10.7	10.5	10.3	10.2	100	97	95	94	93
65–69	18.7	18.1	18.0	17.6	17.4	100	97	96	94	93
70–74	28.4	26.8	26.1	25.6	25.1	100	94	92	90	88
75 and over	69.3	66.6	66.1	65.8	65.7	100	96	95	95	95

Note: The age-sex-specific death rates for the years 1978–1980 have been used as the base for making future assumptions and comparison. Figures for 1981 were not yet available at the time of preparing this projection.

* Rates for 1978–1980 are taken as base (100). Indexes are computed on unrounded figures.

Source: 1981 Census-based Population Projections.

Table I 36 Percentage distribution of deaths by cause of death; 1971, 1976 and 1980

Cause of Death	Percentage of Deaths		
	1971	1976	1980
	%	%	%
Infectious and parasitic diseases	7.1	3.3	3.2
Neoplasms	20.8	23.7	25.7
Diseases of the circulatory system	24.9	29.0	29.6
Diseases of the respiratory system	16.4	14.5	15.6
Diseases of the digestive system	5.0	5.0	4.5
Diseases of the genitourinary system	2.2	2.2	3.9
Congenital anomalies and certain conditions originating in the perinatal period	4.4	3.9	3.1
Symptoms, signs and ill-defined conditions	10.2	8.8	5.8
Injuries and poisonings	6.8	6.6	6.2
Other diseases	2.2	3.0	2.4
Total	100.0	100.0	100.0

Table I 37 Distribution of deaths by sex, cause of death and age group; 1971 and 1980

Cause of Death	Number of Deaths by Age Group													
	1971							1980*						
	Under 1	1-44	45-54	55-64	65-79	80 and over	Total	Under 1	1-44	45-54	55-64	65-79	80 and over	Total
<i>Male</i>														
Infectious and parasitic diseases	45	167	238	351	253	21	1 075	16	82	79	152	211	34	574
Neoplasms	4	465	604	767	561	63	2 464	2	465	771	1 248	1 368	135	3 989
Diseases of the circulatory system	4	214	355	799	1 002	214	2 588	—	140	391	946	1 847	423	3 747
Diseases of the respiratory system	163	268	191	464	620	173	1 879	66	156	192	423	954	327	2 118
Diseases of the digestive system	45	151	123	175	146	24	664	7	74	147	189	226	50	693
Diseases of the genitourinary system	1	61	23	45	58	19	207	1	59	49	105	188	79	481
Congenital anomalies and certain conditions originating in the perinatal period	521	19	—	—	1	—	541	410	18	1	—	—	—	429
Symptoms, signs and ill-defined conditions	4	212	76	161	312	164	929	7	83	27	47	200	177	541
Injuries and poisonings	26	533	143	126	70	11	909	20	604	130	117	115	22	1 008
Other diseases	15	86	27	42	46	4	220	13	69	27	62	76	16	263
Total	828	2 176	1 780	2 930	3 069	693	11 476	542	1 750	1 814	3 289	5 185	1 263	13 843
<i>Female</i>														
Infectious and parasitic diseases	24	81	46	68	120	31	370	17	32	23	34	78	53	237
Neoplasms	3	252	352	447	604	123	1 781	1	253	347	605	954	272	2 432
Diseases of the circulatory system	3	174	209	421	1 120	565	2 492	4	120	215	562	1 695	1 060	3 656
Diseases of the respiratory system	147	136	86	178	543	379	1 469	37	77	43	167	700	746	1 770
Diseases of the digestive system	39	52	43	65	127	35	361	4	28	37	69	186	96	420
Diseases of the genitourinary system	—	66	33	32	78	28	237	—	53	67	82	192	108	502
Congenital anomalies and certain conditions originating in the perinatal period	337	20	—	—	1	—	358	318	24	3	—	—	—	345
Symptoms, signs and ill-defined conditions	6	70	35	61	406	562	1 140	10	21	6	30	245	603	915
Injuries and poisonings	20	224	58	58	82	26	468	17	205	55	73	127	51	528
Other diseases	8	75	16	39	68	16	222	6	73	31	56	131	42	339
Total	587	1 150	878	1 369	3 149	1 765	8 898	414	886	827	1 678	4 308	3 031	11 144

* Excluding 21 deaths of unknown age or sex.

Table I 38 Death rates per 10 000 population by sex, cause of death and age group; 1971 and 1980

Cause of Death	Death Rate per 10 000 Population by Age Group													
	1971							1980#						
	Under 1	1-44	45-54	55-64	65-79	80 and over	Total	Under 1	1-44	45-54	55-64	65-79	80 and over	Total
<i>Male</i>														
Infectious and parasitic diseases	11.5	1.0	10.9	26.7	46.5	36.6	5.2	3.7	0.4	2.8	7.6	18.0	32.3	2.2
Neoplasms	1.0	2.9	27.7	58.4	103.0	109.9	12.0	0.5	2.4	27.6	62.4	116.6	128.3	15.3
Diseases of the circulatory system	1.0	1.3	16.3	60.8	184.0	373.3	12.7	—	0.7	13.9	47.4	157.6	402.2	14.4
Diseases of the respiratory system	41.7	1.7	8.8	35.3	113.9	301.9	9.1	15.4	0.8	6.8	21.2	81.3	310.9	8.1
Diseases of the digestive system	11.5	0.9	5.7	13.3	26.8	41.9	3.2	1.6	0.4	5.2	9.5	19.3	47.5	2.7
Diseases of the genitourinary system	0.3	0.4	1.1	3.4	10.7	33.2	1.0	0.2	0.3	1.7	5.3	16.0	75.1	1.8
Congenital anomalies and certain conditions originating in the perinatal period	133.4	0.1	—	—	0.2	—	2.6	95.8	0.1	*	—	—	—	1.6
Symptoms, signs and ill-defined conditions	1.0	1.3	3.5	12.3	57.3	286.2	4.5	1.6	0.4	1.0	2.4	17.0	168.3	2.1
Injuries and poisonings	6.7	3.4	6.6	9.6	12.9	19.2	4.4	4.7	3.1	4.6	5.9	9.8	20.9	3.9
Other diseases	3.8	0.5	1.2	3.2	8.4	7.0	1.1	3.0	0.4	1.0	3.1	6.5	15.2	1.0
Total	211.9	13.5	81.8	223.0	563.7	1 209.2	55.8	126.5	9.0	64.6	164.8	442.1	1 200.7	53.1
<i>Female</i>														
Infectious and parasitic diseases	6.6	0.5	2.3	4.7	11.5	17.9	1.9	4.3	0.2	0.9	1.8	4.8	16.7	1.0
Neoplasms	0.8	1.8	17.4	31.2	57.7	71.0	9.0	0.3	1.5	14.3	31.2	59.0	85.8	10.2
Diseases of the circulatory system	0.8	1.2	10.3	29.5	106.9	326.1	12.5	1.0	0.7	8.8	29.0	104.8	334.2	15.3
Diseases of the respiratory system	40.3	0.9	4.2	12.4	51.9	218.7	7.4	9.3	0.4	1.8	8.6	43.3	235.2	7.4
Diseases of the digestive system	10.7	0.4	2.1	4.5	12.1	20.2	1.8	1.0	0.2	1.5	3.6	11.5	30.3	1.8
Diseases of the genitourinary system	—	0.4	1.6	2.2	7.5	16.2	1.2	—	0.3	2.8	4.2	11.9	34.1	2.1
Congenital anomalies and certain conditions originating in the perinatal period	92.3	0.1	—	—	0.1	—	1.8	79.7	0.1	0.1	—	—	—	1.4
Symptoms, signs and ill-defined conditions	1.6	0.5	1.7	4.3	38.8	324.4	5.7	2.5	0.1	0.2	1.6	15.2	190.1	3.8
Injuries and poisonings	5.5	1.5	2.9	4.1	7.8	15.0	2.4	4.3	1.2	2.3	3.8	7.9	16.1	2.2
Other diseases	2.2	0.5	0.8	2.7	6.5	9.2	1.1	1.5	0.4	1.3	2.9	8.2	13.2	1.4
Total	160.8	7.8	43.3	95.6	300.8	1 018.7	44.8	103.9	5.1	34.0	86.7	266.6	955.7	46.6

Excluding 21 deaths of unknown age or sex.
* Less than 0.05.

II Social and Economic Characteristics

Table II 1 Total population and labour force by sex; 1961, 1971 and 1981

<i>Year</i>	<i>Total population</i>	<i>Persons aged 15 and over</i>	<i>Labour force aged 15 and over</i>	<i>Economically inactive aged 15 and over</i>
<i>Male</i>				
1961	1 607 779	943 764	852 850	90 914
1971	2 000 602	1 280 482	1 084 355	196 127
1981	2 604 168	1 961 803	1 618 389	343 414
<i>Female</i>				
1961	1 521 869	908 849	334 708	574 141
1971	1 936 028	1 248 244	534 627	713 617
1981	2 382 392	1 787 250	885 415	901 835
<i>Total</i>				
1961	3 129 648	1 852 613	1 187 558	665 055
1971	3 936 630	2 528 726	1 618 982	909 744
1981	4 986 560	3 749 053	2 503 804	1 245 249

Table II 2 Average annual growth rates of population and labour force by sex; 1961–1971 and 1971–1981

<i>Year</i>	<i>Average Annual Growth Rate</i>			
	<i>Total population</i>	<i>Persons aged 15 and over</i>	<i>Labour force aged 15 and over</i>	<i>Economically inactive aged 15 and over</i>
	%	%	%	%
<i>Male</i>				
1961–1971	2.2	3.1	2.4	8.0
1971–1981	2.7	4.4	4.1	5.8
<i>Female</i>				
1961–1971	2.4	3.2	4.8	2.2
1971–1981	2.1	3.7	5.2	2.4
<i>Overall</i>				
1961–1971	2.3	3.2	3.1	3.2
1971–1981	2.4	4.0	4.5	3.2

Table II 3 Percentage distribution of labour force and population aged 15 and over by age group and sex; 1961, 1971 and 1981

Age Group	Labour Force			Population		
	1961	1971	1981	1961	1971	1981
	%	%	%	%	%	%
<i>Male</i>						
15-19	5.7	10.2	8.2	9.6	17.2	14.9
20-24	11.6	14.4	17.3	11.8	13.5	15.7
25-34	31.9	20.3	29.0	29.5	17.5	24.4
35-44	26.6	23.9	16.6	24.4	20.5	13.9
45-54	16.7	19.1	16.5	15.5	16.7	14.1
55 and over	7.5	12.1	12.4	9.2	14.6	17.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
<i>Female</i>						
15-19	10.7	22.0	13.1	8.2	16.7	15.2
20-24	14.0	21.2	24.9	10.1	13.1	15.5
25-34	24.2	13.5	25.8	26.3	14.6	22.5
35-44	23.5	17.2	12.7	22.8	19.0	11.8
45-54	18.2	14.5	12.6	15.9	16.0	13.4
55 and over	9.4	11.6	10.9	16.7	20.6	21.6
Total	100.0	100.0	100.0	100.0	100.0	100.0

Table II 4 Mean age and median age of the labour force by sex; 1961, 1971 and 1981

Sex	Mean Age of Labour Force			Median Age of Labour Force		
	1961	1971	1981	1961	1971	1981
Male	36.8	37.7	36.6	35.3	37.1	33.3
Female	36.6	34.1	33.8	35.5	29.9	28.8
Overall	36.8	36.5	35.6	35.3	35.6	31.8

Table II 5 Crude labour force participation rates (LFPR); 1961, 1971 and 1981

Year	Crude LFPR		Index (1961=100)	
	Male	Female	Male	Female
	%	%		
1961	90.4	36.8	100	100
1971	84.7	42.8	94	116
1981	82.5	49.5	91	135

Table II 6 Age-sex-specific labour force participation rates (LFPR) by age group and sex; 1961, 1971 and 1981

Age Group	Labour Force Participation Rates by Sex					
	1961	Male 1971	1981	1961	Female 1971	1981
	%	%	%	%	%	%
15-19	54.3	50.4	45.2	47.9	56.4	42.6
20-24	89.2	90.2	90.9	51.1	69.5	79.7
25-34	97.8	98.4	98.3	33.9	39.6	56.8
35-44	98.3	98.6	98.6	38.0	38.7	53.4
45-54	96.9	96.6	96.0	42.1	38.9	46.7
55 and over	73.6	70.1	60.3	20.7	24.1	24.9

Table II 7 Projected age-sex-specific labour force participation rates (LFPR) by age group and sex; 1986-2001

Age Group	Projected LFPR			
	1986	1991	1996	2001
	%	%	%	%
<i>Male</i>				
15-19	42.6	39.9	37.7	35.6
20-24	91.1	91.3	91.6	91.8
25-34	98.2	98.2	98.1	98.0
35-44	98.6	98.6	98.6	98.6
45-54	96.0	96.0	96.0	96.0
55-64	76.8	76.8	76.8	76.8
65 and over	33.7	31.8	30.2	28.7
<i>Female</i>				
15-19	40.0	37.5	35.5	33.4
20-24	80.6	81.4	82.0	82.6
25-34	57.0	57.3	57.4	57.5
35-44	53.5	53.6	53.7	53.7
45-54	50.1	53.4	56.7	60.0
55-64	37.4	39.9	42.5	45.0
65 and over	14.9	14.7	14.6	14.5

Source: 1981 Census-based labour supply projection.

Table II 8 Projected distribution of the labour force by age group and sex; 1986–2001

<i>Age Group</i>	<i>Projected Labour Force</i>			
	<i>1986</i>	<i>1991</i>	<i>1996</i>	<i>2001</i>
<i>Male</i>				
15–19	98 600	91 200	89 500	96 900
20–24	269 800	213 800	211 400	219 800
25–34	605 300	649 300	569 500	505 900
35–44	389 400	539 300	654 100	697 700
45–54	287 100	300 000	401 200	541 300
55 and over	250 300	283 500	304 000	321 100
Total	1 900 500	2 077 100	2 229 700	2 382 700
<i>Female</i>				
15–19	86 500	78 700	77 600	84 300
20–24	221 700	178 200	174 200	183 000
25–34	310 600	345 200	309 200	273 800
35–44	170 200	251 500	318 000	349 200
45–54	120 300	128 600	192 000	292 100
55 and over	122 600	141 900	153 500	165 100
Total	1 031 900	1 124 100	1 224 500	1 347 500

Source: 1981 Census-based labour supply projection.

Table II 9 Distribution of labour force by activity status; 1961, 1971 and 1981

<i>Activity Status</i>	<i>Labour Force</i>					
	<i>1961</i>	<i>1971</i>	<i>1981</i>	<i>1961</i>	<i>1971</i>	<i>1981</i>
				<i>%</i>	<i>%</i>	<i>%</i>
Self-employed	123 594	130 161	146 806	10.4	8.0	5.9
Employers	57 400	40 748	89 767	4.8	2.5	3.6
Employees	939 534	1 341 061	2 129 905	79.1	82.8	85.0
Unpaid workers	46 130	34 954	37 589	3.9	2.2	1.5
Unemployed	20 900	72 058	99 737	1.8	4.5	4.0
Total	1 187 558	1 618 982	2 503 804	100.0	100.0	100.0

Table II 10 Distribution of working population by educational attainment; 1961, 1971 and 1981

<i>Educational Attainment</i>	<i>Working Population</i>					
	<i>1961</i>	<i>1971</i>	<i>1981</i>	<i>1961</i>	<i>1971</i>	<i>1981</i>
				<i>%</i>	<i>%</i>	<i>%</i>
No schooling/ Kindergarten	239 849	251 167	256 718	20.1	16.2	10.7
Primary	626 852	783 594	883 923	52.7	50.7	36.8
Secondary/ Matriculation	273 343	433 546	1 075 234	22.9	28.0	44.7
Post-secondary/ University	51 055	78 617	188 192	4.3	5.1	7.8
Total	1 191 099	1 546 924	2 404 067	100.0	100.0	100.0

Table II 11 Distribution of working population by industry; 1961, 1971 and 1981

<i>Industry</i>	<i>Working Population</i>					
	<i>1961</i>	<i>1971</i>	<i>1981</i>	<i>1961</i>	<i>1971</i>	<i>1981</i>
				<i>%</i>	<i>%</i>	<i>%</i>
Agriculture and fishing	87 581	60 595	47 004	7.3	3.9	2.0
Mining and quarrying	8 869	4 381	1 556	0.7	0.3	0.1
Manufacturing	512 438	728 461	990 365	43.0	47.0	41.2
Electricity, gas and water	12 617	8 825	14 669	1.1	0.6	0.6
Construction	58 209	82 837	185 999	4.9	5.4	7.7
Wholesale and retail trade, restaurants and hotels	171 206	251 252	461 489	14.4	16.2	19.2
Transport, storage and communication	86 740	114 145	181 368	7.3	7.4	7.5
Financing, insurance, real estate and business services	19 164	41 018	115 870	1.6	2.7	4.8
Services	217 647	232 575	375 703	18.3	15.0	15.6
Unclassifiable	16 628	22 835	30 044	1.4	1.5	1.3
Total	1 191 099	1 546 924	2 404 067	100.0	100.0	100.0

Table II 12 Distribution of working population by occupation; 1961, 1971 and 1981

<i>Occupation</i>	<i>Working Population</i>					
	<i>1961</i>	<i>1971</i>	<i>1981</i>	<i>1961</i>	<i>1971</i>	<i>1981</i>
				<i>%</i>	<i>%</i>	<i>%</i>
Professional, technical and related workers	60 907	79 978	143 700	5.1	5.2	6.0
Administrative and managerial workers	36 629	37 588	64 106	3.1	2.4	2.7
Clerical and related workers	69 644	128 624	293 905	5.8	8.3	12.2
Sales workers	162 984	163 817	247 924	13.7	10.6	10.3
Service workers	179 739	229 516	374 093	15.1	14.8	15.6
Agricultural workers and fisherfolk	87 581	59 442	50 676	7.4	3.8	2.1
Production and related workers, transport equipment operators and labourers	580 424	808 235	1 212 545	48.7	52.3	50.4
Armed forces and unclassifiable	13 191	39 724	17 118	1.1	2.6	0.7
Total	1 191 099	1 546 924	2 404 067	100.0	100.0	100.0

Table II 13 Percentage distribution of working population by occupation and sex; 1961, 1971 and 1981

Occupation	Working Population by Sex					
	Male			Female		
	1961	1971	1981	1961	1971	1981
	%	%	%	%	%	%
Professional, technical and related workers	4.6	4.3	5.8	6.3	7.0	6.4
Administrative and managerial workers	4.0	3.3	3.6	0.7	0.6	1.0
Clerical and related workers	6.9	8.4	8.9	3.3	8.1	18.2
Sales workers	15.7	12.3	11.6	8.6	7.1	7.9
Service workers	11.4	14.5	15.9	24.3	15.5	15.0
Agricultural workers and fisherfolk	6.6	3.7	2.2	9.2	4.1	1.9
Production and related workers, transport equipment operators and labourers	49.4	51.0	51.2	47.2	54.8	49.1
Armed forces and unclassifiable	1.4	2.5	0.8	0.4	2.8	0.5
Total	100.0	100.0	100.0	100.0	100.0	100.0

Table II 14 Percentage distribution of working population# by occupation and industry; 1971 and 1981

Occupation	Working Population# by Industry										Total
	Agriculture and fishing	Mining and quarrying	Manu- facturing	Electricity, gas and water	Con- struction	Wholesale and retail trade, restaurants and hotels	Transport, storage and com- munication	Financing, insurance, real estate and business services	Services	Un- classifiable	
	%	%	%	%	%	%	%	%	%	%	
1971											
Professional, technical and related workers	—	0.8	0.8	7.7	3.9	0.3	1.1	13.3	26.5	1.0	5.1
Administrative and managerial workers	6.2	0.4	0.7	0.3	0.6	7.6	1.1	3.7	2.5	0.1	2.4
Clerical and related workers	0.1	3.1	3.8	17.2	2.9	16.1	11.9	58.4	7.3	1.4	8.1
Sales workers	4.6	0.3	4.9	0.2	0.7	45.8	0.9	9.7	1.6	3.7	10.5
Service workers	0.7	3.0	4.3	9.6	2.7	25.3	9.6	11.3	49.1	4.8	14.7
Agricultural workers and fisherfolk	87.2	0.1	0.2	0.1	0.1	1.6	0.4	0.8	0.3	*	3.8
Production and related workers, transport equipment operators and labourers	0.4	87.7	84.4	60.7	87.8	2.4	74.2	1.3	7.8	4.4	51.5
Armed forces and unclassifiable	0.8	4.6	0.9	4.2	1.3	0.9	0.8	1.5	4.9	84.6	3.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1981											
Professional, technical and related workers	*	3.4	1.6	14.6	6.0	1.0	2.8	11.8	23.2	7.1	5.9
Administrative and managerial workers	0.1	4.4	2.2	2.0	1.3	3.6	2.7	10.2	1.2	1.6	2.6
Clerical and related workers	0.1	10.3	5.8	16.1	3.6	14.5	17.1	60.8	14.4	6.0	12.0
Sales workers	—	—	2.8	1.2	0.5	43.4	1.0	9.3	0.7	9.2	10.3
Service workers	0.2	6.6	4.9	7.1	4.4	28.7	6.3	5.8	43.8	12.5	15.6
Agricultural workers and fisherfolk	98.5	—	*	0.2	—	0.1	*	*	0.8	2.9	2.1
Production and related workers, transport equipment operators and labourers	1.0	74.7	82.3	57.7	83.9	8.4	69.9	1.8	13.8	49.3	50.7
Armed forces and unclassifiable	0.1	0.6	0.4	1.1	0.3	0.3	0.2	0.3	2.1	11.4	0.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Including unemployed persons with previous job.
* Less than 0.05%.

Table II 15 Percentage distribution of working population* by occupation and educational attainment; 1981

<i>Working Population* by Level of Education</i>					
<i>Occupation</i>	<i>No schooling/ Kindergarten</i>	<i>Primary</i>	<i>Secondary/ Matriculation</i>	<i>Post- secondary/ University</i>	<i>Total</i>
	%	%	%	%	%
Professional, technical and related workers	0.2	2.5	39.0	58.3	100.0
Administrative and managerial workers	—	8.0	55.2	36.8	100.0
Clerical and related workers	0.1	5.5	83.3	11.1	100.0
Sales workers	12.8	37.2	44.5	5.5	100.0
Service workers	20.0	43.0	35.1	1.9	100.0
Agricultural workers and fisherfolk	46.9	40.6	11.4	1.1	100.0
Production and related workers, transport equipment operators and labourers	10.5	48.1	39.4	2.0	100.0
Armed forces and unclassifiable	8.9	28.6	53.6	8.9	100.0

* Including unemployed persons with previous job.

Table II 16 Percentage distribution of working population* by industry and educational attainment; 1981

<i>Working Population* by Level of Education</i>					
<i>Industry</i>	<i>No schooling/ Kindergarten</i>	<i>Primary</i>	<i>Secondary/ Matriculation</i>	<i>Post- secondary/ University</i>	<i>Total</i>
	%	%	%	%	%
Agriculture and fishing	49.3	39.7	10.1	0.9	100.0
Mining and quarrying	12.5	40.9	39.5	7.1	100.0
Manufacturing	9.8	43.7	42.5	4.0	100.0
Electricity, gas and water	4.3	27.5	50.1	18.1	100.0
Construction	12.1	44.8	36.9	6.2	100.0
Wholesale and retail trade, restaurants and hotels	11.7	36.6	46.3	5.4	100.0
Transport, storage and communication	7.4	37.1	50.1	5.4	100.0
Financing, insurance, real estate and business services	1.3	6.5	72.2	20.0	100.0
Services	11.6	24.9	44.4	19.1	100.0
Unclassifiable	12.5	39.0	39.8	8.7	100.0

* Including unemployed persons with previous job.

Table II 17 Percentage distribution of working population by occupation and age group; 1981

<i>Occupation</i>	<i>Working Population by Age Group</i>						<i>Total</i>
	<i>15-19</i>	<i>20-29</i>	<i>30-39</i>	<i>40-49</i>	<i>50-59</i>	<i>60 and over</i>	
	%	%	%	%	%	%	
Professional, technical and related workers	2.8	43.6	27.5	16.6	6.6	2.9	100.0
Administrative and managerial workers	0.2	19.3	35.8	23.6	14.0	7.1	100.0
Clerical and related workers	10.2	56.9	18.0	7.7	4.8	2.4	100.0
Sales workers	5.9	25.8	19.5	19.0	18.8	11.0	100.0
Service workers	6.9	25.7	16.3	18.1	19.3	13.7	100.0
Agricultural workers and fisherfolk	9.9	19.4	14.0	19.1	22.8	14.8	100.0
Production and related workers, transport equipment operators and labourers	12.3	36.5	19.9	15.9	10.7	4.7	100.0
Armed forces and unclassifiable	14.7	35.4	21.6	12.5	9.1	6.7	100.0
Total	9.6	35.8	19.8	15.9	12.3	6.6	100.0

Table II 18 Percentage distribution of employees* by hours of work per week and sex; 1976 and 1981

<i>Hours of Work</i>	<i>Employees* by Sex</i>			
	<i>Male</i>		<i>Female</i>	
	<i>1976</i>	<i>1981</i>	<i>1976</i>	<i>1981</i>
	%	%	%	%
15-24	2.1	2.0	2.5	3.9
25-34	2.7	2.5	3.3	3.9
35-44	18.3	20.3	22.0	28.4
45-54	41.0	41.8	51.4	45.9
55-64	18.9	19.4	11.7	11.5
65-74	9.4	8.2	4.2	3.4
75 and over	7.6	5.8	4.9	3.0
Total	100.0	100.0	100.0	100.0

* Excluding outworkers, student workers, farmers, fisherfolk and persons on leave or industrial dispute.

Table II 19 Average hours of work per week of employees* by age group and sex; 1976 and 1981

<i>Age Group</i>	<i>Average Hours of Work per Week of Employees* by Sex</i>				
	<i>Male</i>		<i>Female</i>		
	<i>1976</i>	<i>1981</i>	<i>1976</i>	<i>1981</i>	
15-19	52.7	51.2	48.6	47.7	
20-29	51.5	51.0	47.1	46.6	
30-39	53.3	52.2	48.5	46.1	
40-49	54.2	53.0	51.5	47.7	
50-59	53.9	53.0	55.4	50.6	
60 and over	54.9	53.7	58.4	53.8	
Overall (15 and over)	53.0	52.0	49.6	47.6	

* Excluding outworkers, student workers, farmers, fisherfolk and persons on leave or industrial dispute.

Table II 20 Average hours of work per week of employees* by industry; 1981

<i>Industry</i>	<i>Average hours of work per week of employees*</i>
Agriculture and fishing	N.A.
Mining and quarrying	54.1
Manufacturing	49.4
Electricity, gas and water	47.7
Construction	50.8
Wholesale and retail trade, restaurants and hotels	56.7
Transport, storage and communication	50.9
Financing, insurance, real estate and business services	43.9
Services	48.9
Unclassifiable	50.1

* Excluding outworkers, student workers, farmers, fisherfolk and persons on leave or industrial dispute.

Table II 21 Average hours of work per week of employees* by occupation; 1981

<i>Occupation</i>	<i>Average hours of work per week of employees*</i>
Professional, technical and related workers	42.5
Administrative and managerial workers	47.1
Clerical and related workers	45.2
Sales workers	55.0
Service workers	56.8
Agricultural workers and fisherfolk	N.A.
Production and related workers, transport equipment operators and labourers	50.3
Armed forces and unclassifiable	50.2

* Excluding outworkers, student workers, farmers, fisherfolk and persons on leave or industrial dispute.

Table II 22 (a) Percentage distribution of working population* by income from main employment; 1976 and 1981

<i>Income from Main Employment (HK\$)</i>	<i>Working Population*</i>		
	<i>1976</i>		<i>1981</i>
	<i>At current prices</i>	<i>At 1981 prices</i>	<i>At current prices</i>
	%	%	%
Under 600	33.0	12.4	6.4
600-1,199	48.6	44.5	25.8
1,200-1,499	6.4	14.9	17.2
1,500-2,999	8.6	21.0	37.0
3,000-4,499	1.9	3.8	8.4
4,500 and over	1.5	3.4	5.2
Total	100.0	100.0	100.0

(b) Median income from main employment of working population* and average annual increase; 1976 and 1981

<i>Year</i>	<i>Median Income from Main Employment (HK\$)</i>	
	<i>At current prices</i>	<i>At 1981 prices</i>
1976	742	1 109
1981	1 516	1 516
<i>Percentage increase</i>	+104.3	+36.7
<i>Average annual increase (%)</i>	—	7.1

* Excluding unpaid workers.

Table II 23 Median income from main employment of working population* by age group and sex; 1976 and 1981

<i>Age Group</i>	<i>Median Income from Main Employment (HK\$) of Working Population* by Sex</i>			
	<i>Male</i>		<i>Female</i>	
	<i>1976</i>	<i>1981</i>	<i>1976</i>	<i>1981</i>
15-19	519	1 105	498	1 072
20-29	842	1 732	655	1 312
30-39	1 039	2 208	573	1 254
40-49	973	2 067	527	1 088
50-59	853	1 751	526	1 007
60 and over	709	1 328	449	793
Overall (15 and over)	858	1 801	559	1 165

* Excluding unpaid workers.

Table II 24 Median income from main employment of working population* by educational attainment; 1976 and 1981

<i>Educational Attainment</i>	<i>Median Income from Main Employment (HK\$) of Working Population*</i>	
	<i>1976</i>	<i>1981</i>
No schooling/Kindergarten	585	1,092
Primary	699	1,418
Secondary/Matriculation	817	1,622
Post-secondary/University	2,017	3,330

* Excluding unpaid workers.

Table II 25 Median income from main employment of working population* by occupation; 1976 and 1981

<i>Occupation</i>	<i>Median Income from Main Employment (HK\$) of Working Population*</i>			<i>Ratio to Median Income of Production Workers</i>	
	<i>1976</i>		<i>1981</i>	<i>1976</i>	<i>1981</i>
	<i>At current prices</i>	<i>At 1981 prices</i>	<i>At current prices</i>		
Professional, technical and related workers	1,670	2,505	3,289	2.5	2.4
Administrative and managerial workers	2,691	4,037	4,638	4.1	3.3
Clerical and related workers	928	1,392	1,705	1.4	1.2
Sales workers	792	1,188	1,731	1.2	1.2
Service workers	721	1,082	1,396	1.1	1.0
Agricultural workers and fisherfolk	717	1,076	1,238	1.1	0.9
Production and related workers, transport equipment operators and labourers	663	995	1,387	1.0	1.0

* Excluding unpaid workers.

Table II 26 Median income from main employment of working population* by industry; 1976 and 1981

<i>Industry</i>	<i>Median Income from Main Employment (HK\$) of Working Population*</i>		
	<i>1976</i>		<i>1981</i>
	<i>At current prices</i>	<i>At 1981 prices</i>	<i>At current prices</i>
Agriculture and fishing	706	1,059	1,175
Mining and quarrying	1,004	1,506	2,048
Manufacturing	618	927	1,276
Electricity, gas and water	983	1,475	1,954
Construction	878	1,317	1,903
Wholesale and retail trade, restaurants and hotels	789	1,184	1,629
Transport, storage and communication	965	1,448	2,009
Financing, insurance, real estate and business services	1,064	1,596	1,936
Services	919	1,379	1,766

* Excluding unpaid workers.

Table II 27 Distribution of working population* with post-secondary or technical education by field of education and educational attainment; 1981

<i>Working Population* with Post-secondary or Technical Education by Level of Education</i>							
<i>Field of Education</i>	<i>Craft courses in technical institute</i>	<i>Diploma courses in technical institute</i>	<i>Teacher and nurse training courses</i>	<i>Poly-technic</i>	<i>Post-secondary college</i>	<i>University</i>	<i>Total</i>
Arts and social science	—	220	—	868	8 558	30 141	39 787
Pure science	—	94	—	732	1 813	11 466	14 105
Education	—	—	16 520	185	1 420	4 706	22 831
Business, commercial and computer studies	—	6 613	—	7 009	8 389	15 715	37 726
Medical and health related studies	—	122	7 125	362	1 316	9 333	18 258
Architecture and construction engineering	876	1 636	—	4 345	2 600	8 610	18 067
Mechanical, electrical, electronic and marine engineering	4 348	4 524	—	8 624	1 993	9 958	29 447
Textile, design and other industrial technology	505	1 105	—	2 769	563	1 590	6 532
Transport and other vocational studies (including social work and law)	415	842	—	896	2 396	6 208	10 757
Total	6 144	15 156	23 645	25 790	29 048	97 727	197 510

* Including unemployed persons with previous job.

Table II 28 Percentage distribution of working population# by industry, whether undertaking or have undertaken post-secondary or technical education and educational attainment; 1981

<i>Working Population# with Post-secondary or Technical Education by Level of Education</i>								<i>Working Population# with No Post-secondary or Technical Education</i>	<i>Total</i>
<i>Industry</i>	<i>Craft courses in technical institute</i>	<i>Diploma courses in technical institute</i>	<i>Teacher and nurse training courses</i>	<i>Poly-technic</i>	<i>Post-secondary college</i>	<i>University</i>	<i>Sub-total</i>	<i>%</i>	<i>%</i>
	<i>%</i>	<i>%</i>	<i>%</i>	<i>%</i>	<i>%</i>	<i>%</i>	<i>%</i>	<i>%</i>	<i>%</i>
Agriculture and fishing	*	*	0.1	*	0.2	0.6	0.9	99.1	100.0
Mining and quarrying	0.3	0.9	—	1.9	1.6	2.7	7.4	92.6	100.0
Manufacturing	0.3	0.5	0.2	0.7	0.7	1.8	4.2	95.8	100.0
Electricity, gas and water	1.4	2.1	0.1	7.6	1.0	7.3	19.5	80.5	100.0
Construction	0.4	0.6	0.1	1.3	0.9	3.2	6.5	93.5	100.0
Wholesale and retail trade, restaurants and hotels	0.1	0.5	0.2	0.5	0.9	3.2	5.4	94.6	100.0
Transport, storage and communication	0.4	0.8	0.1	1.2	0.9	2.4	5.8	94.2	100.0
Financing, insurance, real estate and business services	0.1	2.2	0.2	3.2	3.2	11.2	20.1	79.9	100.0
Services	0.2	0.6	5.2	1.6	2.6	9.1	19.3	80.7	100.0
Unclassifiable	0.2	0.4	1.5	1.1	1.1	4.6	8.9	91.1	100.0
Total	0.2	0.6	1.0	1.0	1.2	3.9	7.9	92.1	100.0

* Less than 0.05%.

Including unemployed persons with previous job.

Table II 29 Percentage distribution of working population# by occupation, whether undertaking or have undertaken post-secondary or technical education and educational attainment; 1981

Occupation	Working Population# with Post-secondary or Technical Education by Level of Education							Working Population# with No Post- secondary or Technical Education	Total
	Craft courses in technical institute	Diploma courses in technical institute	Teacher and nurse training courses	Poly- technic	Post- secondary college	University	Sub- total		
	%	%	%	%	%	%	%		
Professional, technical and related workers	0.4	1.8	13.4	6.7	7.0	29.3	58.6	41.4	100.0
Administrative and managerial workers	0.2	1.2	0.5	3.5	4.5	27.1	37.0	63.0	100.0
Clerical and related workers	0.1	1.9	0.3	2.0	2.5	4.4	11.2	88.8	100.0
Sales workers	0.1	0.3	0.2	0.6	1.0	3.4	5.6	94.4	100.0
Service workers	0.1	0.2	0.1	0.2	0.4	1.0	2.0	98.0	100.0
Agricultural workers and fisherfolk	*	0.1	0.1	0.1	0.2	0.6	1.1	98.9	100.0
Production and related workers, transport equipment operators and labourers	0.3	0.3	0.1	0.4	0.3	1.0	2.4	97.6	100.0
Armed forces and unclassifiable	0.6	1.1	1.3	0.9	1.5	4.1	9.5	90.5	100.0
Total	0.2	0.6	1.0	1.0	1.2	3.9	7.9	92.1	100.0

* Less than 0.05%.

Including unemployed persons with previous job.

Table II 30 Percentage of employees* with secondary occupation by age group and sex; 1981

Age Group	Percentage of Employees* with Secondary Occupation by Sex	
	Male	Female
	%	%
15-19	0.6	0.7
20-29	1.9	1.4
30-39	2.9	1.3
40-49	2.4	1.3
50-59	1.7	1.0
60 and over	0.9	0.5
Overall (15 and over)	2.0	1.2

* Excluding outworkers, student workers, paid family workers and persons on leave or industrial dispute.

Table II 31 Distribution of employees* with secondary occupation by age group and sex; 1981

Age Group	Employees* with Secondary Occupation by Sex			
	Male	Female	Male	Female
			%	%
15-19	615	691	1.8	2.0
20-29	8 920	4 402	26.1	12.8
30-39	8 130	1 394	23.7	4.1
40-49	4 933	1 107	14.4	3.2
50-59	2 573	617	7.5	1.8
60 and over	665	222	1.9	0.7
Total (15 and over)	25 836	8 433	75.4	24.6

* Excluding outworkers, student workers, paid family workers and persons on leave or industrial dispute.

Table II 32 Percentage of employees* with secondary occupation by income from main employment; 1981

<i>Income from Main Employment (HK\$)</i>	<i>Percentage of employees* with secondary occupation</i>
Under 600	1.3
600– 999	0.9
1,000–1,499	1.1
1,500–1,999	1.9
2,000–2,999	2.1
3,000–4,999	3.2
5,000 and over	4.1

* Excluding outworkers, student workers, paid family workers and persons on leave or industrial dispute.

Table II 33 Percentage distribution of employees# with secondary occupation by main occupation and secondary occupation; 1981

<i>Main Occupation</i>	<i>Employees# with Secondary Occupation</i>								<i>Total</i>
	<i>Professional, technical and related workers</i>	<i>Administrative and managerial workers</i>	<i>Clerical and related workers</i>	<i>Sales workers</i>	<i>Service workers</i>	<i>Agricultural workers and fisherfolk</i>	<i>Production and related workers, transport equipment operators and labourers</i>	<i>Armed forces and unclassifiable</i>	
	%	%	%	%	%	%	%	%	%
Professional, technical and related workers	15.2	0.2	0.8	0.7	0.8	0.1	0.9	2.4	21.1
Administrative and managerial workers	1.2	0.7	—	0.6	0.4	0.1	—	0.5	3.5
Clerical and related workers	1.2	0.1	7.2	1.7	4.7	0.1	2.3	3.3	20.6
Sales workers	0.3	0.1	0.5	1.0	0.9	0.2	1.2	1.8	6.0
Service workers	0.3	*	0.4	1.1	6.2	0.2	3.7	2.7	14.6
Agricultural workers and fisherfolk	—	—	—	*	0.1	0.1	0.2	0.2	0.6
Production and related workers, transport equipment operators and labourers	0.5	0.1	1.1	2.6	5.9	1.6	17.1	3.9	32.8
Armed forces and unclassifiable	*	—	*	*	0.2	*	0.3	0.3	0.8
Total	18.7	1.2	10.0	7.7	19.2	2.4	25.7	15.1	100.0

Excluding outworkers, student workers, paid family workers and persons on leave or industrial dispute.

* Less than 0.05%.

Table II 34 Distribution of working population by activity status, whether seeking more work and compatibility of education and occupation; 1981

Activity Status	<i>Working Population by Whether Seeking More Work and Whether Education and Occupation Compatible</i>				Total
	<i>Not seeking more work</i>		<i>Seeking more work</i>		
	<i>compatible</i>	<i>incompatible</i>	<i>compatible</i>	<i>incompatible</i>	
<i>Number</i>					
Self-employed	139 038	5 933	1 696	139	146 806
Employers	87 618	1 291	858	—	89 767
Unpaid workers	36 206	1 076	275	32	37 589
Employees					
Work less than 35 hours per week	168 137	6 689	4 510	257	179 593
Work 35 hours or more per week	1 868 314	81 998	—	—	1 950 312
Total	2 299 313	96 987	7 339	428	2 404 067
<i>Percentage</i>					
Self-employed	94.7	4.0	1.2	0.1	100.0
Employers	97.6	1.4	1.0	—	100.0
Unpaid workers	96.3	2.9	0.7	0.1	100.0
Employees					
Work less than 35 hours per week	93.7	3.7	2.5	0.1	100.0
Work 35 hours or more per week	95.8	4.2	—	—	100.0
Total	95.7	4.0	0.3	*	100.0

Note: "Persons seeking more work" excludes all employees who are working 35 hours or more per week or who are farmers and fisherfolk.
* Less than 0.05%.

Table II 35 Distribution of labour force by sex, whether unemployed, seeking more work and compatibility of education and occupation; 1981

Sex	<i>Labour Force by Whether Unemployed or Seeking More Work and Whether Education and Occupation Compatible</i>					Total
	<i>Not seeking more work</i>		<i>Seeking more work</i>		<i>Unemployed</i>	
	<i>compatible</i>	<i>incompatible</i>	<i>compatible</i>	<i>incompatible</i>		
<i>Number</i>						
Male	1 486 208	59 688	5 248	299	66 946	1 618 389
Female	813 105	37 299	2 091	129	32 791	885 415
Total	2 299 313	96 987	7 339	428	99 737	2 503 804
<i>Percentage</i>						
Male	91.9	3.7	0.3	*	4.1	100.0
Female	91.9	4.2	0.2	*	3.7	100.0
Total	91.8	3.9	0.3	*	4.0	100.0

Note: "Persons seeking more work" excludes all employees who are working 35 hours or more per week or who are farmers and fisherfolk.
* Less than 0.05%.

Table II 36 Percentage distribution of labour force by age group, whether unemployed, seeking more work and compatibility of education and occupation; 1981

<i>Labour Force by Whether Unemployed or Seeking More Work and Whether Education and Occupation Compatible</i>						
<i>Age Group</i>	<i>Not seeking more work</i>		<i>Seeking more work</i>		<i>Unemployed</i>	<i>Total</i>
	<i>compatible</i>	<i>incompatible</i>	<i>compatible</i>	<i>incompatible</i>		
	%	%	%	%	%	%
15-19	90.6	2.7	0.2	*	6.5	100.0
20-29	91.6	4.5	0.3	*	3.6	100.0
30-39	92.1	4.7	0.4	*	2.8	100.0
40-49	91.8	4.4	0.3	*	3.5	100.0
50-59	92.1	1.9	0.3	*	5.7	100.0
60 and over	94.0	2.3	0.2	*	3.5	100.0
Total	91.8	3.9	0.3	*	4.0	100.0

Note: "Persons seeking more work" excludes all employees who are working 35 hours or more per week or who are farmers and fisherfolk.
* Less than 0.05%.

Table II 37 Percentage distribution of labour force by educational attainment, whether unemployed, seeking more work and compatibility of education and occupation; 1981

<i>Labour Force by Whether Unemployed or Seeking More Work and Whether Education and Occupation Compatible</i>						
<i>Educational Attainment</i>	<i>Not seeking more work</i>		<i>Seeking more work</i>		<i>Unemployed</i>	<i>Total</i>
	<i>compatible</i>	<i>incompatible</i>	<i>compatible</i>	<i>incompatible</i>		
	%	%	%	%	%	%
No schooling/ Kindergarten	94.5	—	0.3	—	5.2	100.0
Primary	95.1	—	0.3	—	4.6	100.0
Secondary/ Matriculation	90.5	5.7	0.3	*	3.5	100.0
Post-secondary/ University	79.6	17.6	0.4	0.1	2.3	100.0

Note: "Persons seeking more work" excludes all employees who are working 35 hours or more per week or who are farmers and fisherfolk.
* Less than 0.05%.

Table II 38 Percentage distribution of working population by occupation, whether seeking more work and compatibility of education and occupation; 1981

<i>Occupation</i>	<i>Working Population by Whether Seeking More Work and Whether Education and Occupation Compatible</i>				<i>Total</i>
	<i>Not seeking more work</i>		<i>Seeking more work</i>		
	<i>compatible</i>	<i>incompatible</i>	<i>compatible</i>	<i>incompatible</i>	
	%	%	%	%	%
Professional, technical and related workers	98.2	1.2	0.6	*	100.0
Administrative and managerial workers	99.5	—	0.5	—	100.0
Clerical and related workers	95.2	4.7	0.1	*	100.0
Sales workers	96.4	3.0	0.6	*	100.0
Service workers	94.2	5.6	0.2	*	100.0
Agricultural workers and fisherfolk	99.1	0.4	0.5	—	100.0
Production and related workers, transport equipment operators and labourers	95.3	4.4	0.3	*	100.0
Armed forces and unclassifiable	99.5	—	0.5	—	100.0

Note: "Persons seeking more work" excludes all employees who are working 35 hours or more per week or who are farmers and fisherfolk.
* Less than 0.05%.

Table II 39 Percentage distribution of working population by industry, whether seeking more work and compatibility of education and occupation; 1981

<i>Industry</i>	<i>Working Population by Whether Seeking More Work and Whether Education and Occupation Compatible</i>				<i>Total</i>
	<i>Not seeking more work</i>		<i>Seeking more work</i>		
	<i>compatible</i>	<i>incompatible</i>	<i>compatible</i>	<i>incompatible</i>	
	%	%	%	%	%
Agriculture and fishing	99.2	0.3	0.5	—	100.0
Mining and quarrying	97.7	2.3	—	—	100.0
Manufacturing	95.5	4.3	0.2	*	100.0
Electricity, gas and water	96.8	3.1	0.1	—	100.0
Construction	95.0	4.7	0.3	*	100.0
Wholesale and retail trade, restaurants and hotels	96.3	3.3	0.4	*	100.0
Transport, storage and communication	95.8	3.8	0.4	*	100.0
Financing, insurance, real estate and business services	95.4	4.5	0.1	*	100.0
Services	95.3	4.4	0.3	*	100.0
Unclassifiable	94.2	5.2	0.6	*	100.0

Note: "Persons seeking more work" excludes all employees who are working 35 hours or more per week or who are farmers and fisherfolk.
* Less than 0.05%.

Table II 40 Percentage distribution of working population† by income from main employment, whether seeking more work and compatibility of education and occupation; 1981

<i>Income from Main Employment (HK\$)</i>	<i>Working Population† by Whether Seeking More Work and Whether Education and Occupation Compatible</i>				<i>Total</i>
	<i>Not seeking more work</i>		<i>Seeking more work</i>		
	<i>compatible</i>	<i>incompatible</i>	<i>compatible</i>	<i>incompatible</i>	
	%	%	%	%	%
Under 600	95.8	3.3	0.9	*	100.0
600– 999	95.7	4.0	0.3	*	100.0
1,000–1,499	95.1	4.7	0.2	*	100.0
1,500–1,999	95.8	4.0	0.2	*	100.0
2,000–2,999	95.9	3.8	0.3	*	100.0
3,000–4,999	95.5	4.2	0.3	*	100.0
5,000 and over	97.9	1.7	0.4	—	100.0
Total	95.6	4.1	0.3	*	100.0

Note: "Persons seeking more work" excludes all employees who are working 35 hours or more per week or who are farmers and fisherfolk.

† Excluding unpaid workers.

* Less than 0.05%.

Table II 41 Distribution of unemployed population by type of unemployment; 1981

<i>Type of Unemployment</i>	<i>Unemployed persons</i>	
		%
Waiting to start work or just commencing work	6 905	6.9
Temporarily laid off	28 297	28.4
Job-seekers		
Employed full-time previously	20 133	20.2
First-time job-seekers	9 049	9.1
Not seeking work due to temporary sickness/injury and discouraged job-seekers		
Employed full-time previously	27 334	27.4
Never worked before	8 019	8.0
Total	99 737	100.0

Table II 42 Unemployment rates by age group and sex; 1981

<i>Age Group</i>	<i>Unemployment Rate by Sex</i>	
	<i>Male</i>	<i>Female</i>
	%	%
15–19	7.4	5.4
20–29	3.7	3.6
30–39	2.8	2.8
40–49	3.7	3.0
50–59	6.0	4.9
60–64	6.8	5.9
Overall (15–64)	4.3	3.8

Table II 43 Percentage distribution of unemployed population by age group and sex; 1981

<i>Age Group</i>	<i>Unemployed Population by Sex</i>	
	<i>Male</i>	<i>Female</i>
	%	%
15-19	14.7	19.1
20-29	29.4	39.0
30-39	14.4	12.1
40-49	15.4	11.0
50-59	19.9	13.7
60-64	6.2	5.1
Total	100.0	100.0

Table II 44 Percentage distribution of unemployed population by educational attainment; 1981

<i>Unemployed Population by Level of Education</i>				
<i>No schooling/ Kindergarten</i>	<i>Primary</i>	<i>Secondary/ Matriculation</i>	<i>Post-secondary/ University</i>	<i>Total</i>
%	%	%	%	%
14.2	42.3	39.1	4.4	100.0

Table II 45 Percentage distribution of population aged 15 and over by educational attainment; 1961, 1971 and 1981

<i>Educational Attainment</i>	<i>Population Aged 15 and Over</i>		
	<i>1961</i>	<i>1971</i>	<i>1981</i>
	%	%	%
No schooling/Kindergarten	28.5	22.7	16.1
Primary	45.3	44.1	34.2
Secondary/Matriculation	22.5	28.8	43.0
Post-secondary/University	3.7	4.4	6.7
Total	100.0	100.0	100.0

Table II 46 Percentage distribution of population aged 15 and over by educational attainment and broad age group; 1961, 1971 and 1981

<i>Educational Attainment</i>	<i>Population by Age Group</i>				
	<i>15-24</i>	<i>25-34</i>	<i>35-44</i>	<i>45-54</i>	<i>55 and over</i>
	%	%	%	%	%
<i>1961</i>					
No schooling/Kindergarten	10.2	22.1	29.0	38.2	57.5
Primary	46.4	51.8	47.4	41.9	30.4
Secondary/Matriculation	39.7	22.6	19.5	15.7	9.4
Post-secondary/University	3.7	3.5	4.1	4.2	2.7
Total	100.0	100.0	100.0	100.0	100.0
<i>1971</i>					
No schooling/Kindergarten	3.9	12.1	26.3	33.2	51.2
Primary	40.4	46.4	51.1	47.9	36.7
Secondary/Matriculation	51.5	34.1	18.6	15.0	9.1
Post-secondary/University	4.2	7.4	4.0	3.9	3.0
Total	100.0	100.0	100.0	100.0	100.0
<i>1981</i>					
No schooling/Kindergarten	1.6	4.1	11.9	29.4	47.4
Primary	21.7	36.9	41.4	46.8	37.1
Secondary/Matriculation	71.2	49.6	36.0	18.5	12.1
Post-secondary/University	5.5	9.4	10.7	5.3	3.4
Total	100.0	100.0	100.0	100.0	100.0

Table II 47 Percentage distribution of population aged 15 and over by educational attainment and sex; 1961, 1971 and 1981

<i>Educational Attainment</i>	<i>Population Aged 15 and Over by Sex</i>						
	<i>1961</i>	<i>Male</i>			<i>Female</i>		
			<i>1971</i>	<i>1981</i>	<i>1961</i>	<i>1971</i>	<i>1981</i>
	%	%	%	%	%	%	
No schooling/Kindergarten	9.4	9.9	7.6	48.2	35.9	25.5	
Primary	55.6	49.6	36.8	34.8	38.4	31.5	
Secondary/Matriculation	29.7	34.5	47.5	15.0	22.9	37.9	
Post-secondary/University	5.3	6.0	8.1	2.0	2.8	5.1	
Total	100.0	100.0	100.0	100.0	100.0	100.0	

Table II 48 Percentage distribution of population aged 15 and over by age group, sex and educational attainment; 1981

Age Group	Sex	Population by Level of Education				Total
		No schooling/ Kindergarten	Primary	Secondary/ Matriculation	Post-secondary/ University	
		%	%	%	%	
15-24	M	1.2	19.6	73.3	5.9	100.0
	F	2.0	23.9	68.9	5.2	100.0
25-34	M	2.6	33.8	52.8	10.8	100.0
	F	5.9	40.7	45.7	7.7	100.0
35-44	M	6.4	40.4	40.9	12.3	100.0
	F	19.1	42.7	29.7	8.5	100.0
45-54	M	14.3	54.4	24.0	7.3	100.0
	F	47.0	37.9	12.1	3.0	100.0
55 and over	M	21.6	54.1	18.8	5.5	100.0
	F	69.7	22.5	6.3	1.5	100.0

Table II 49 Age-sex-specific school attendance ratios by age group and sex; 1971, 1976 and 1981

Age Group	School Attendance Ratio by Sex					
	Male			Female		
	1971	1976	1981	1971	1976	1981
	%	%	%	%	%	%
3-5	56.5	60.7	83.5	53.2	60.1	82.7
6-11	95.5	98.1	98.5	94.4	97.8	98.5
12-14	89.8	90.1	92.0	80.2	84.5	92.1
15-16	63.9	70.7	72.4	51.1	61.7	75.1
17-18	42.4	46.2	44.9	35.2	41.2	45.0

Table II 50 Distribution of full-time students by educational attainment and age group; 1971 and 1981

Educational Attainment	Full-time Students by Age Group							Total
	3-5	6-11	12-14	15-16	17-19	20-24	25 and over	
1971								
Kindergarten	133 639	60 236	—	—	—	—	—	193 875
Primary	9 068	537 445	180 877	14 347	2 720	31	120	744 608
Secondary/Matriculation	—	1 580	80 977	92 953	73 766	15 097	5 040	269 413
Post-secondary/University	—	—	—	305	6 673	11 809	1 025	19 812
Total	142 707	599 261	261 854	107 605	83 159	26 937	6 185	1 227 708
1981								
Kindergarten	185 692	30 075	—	—	—	—	—	215 767
Primary	5 780	457 608	69 043	4 060	1 345	—	—	537 836
Secondary/Matriculation	—	2 814	182 082	152 002	123 717	13 406	462	474 483
Post-secondary/University	—	—	—	145	6 814	22 027	2 476	31 462
Total	191 472	490 497	251 125	156 207	131 876	35 433	2 938	1 259 548

Table II 51 Distribution of part-time students by age group and educational attainment; 1981

<i>Part-time Students by Level of Education</i>					
<i>Age Group</i>	<i>Kindergarten</i>	<i>Primary</i>	<i>Secondary/ Matriculation</i>	<i>Post- secondary/ University</i>	<i>Total</i>
Under 15	—	5 595	3 972	—	9 567
15-24	—	3 077	47 500	12 372	62 949
25-34	—	27	2 760	3 834	6 621
35 and over	—	—	—	178	178
Total	—	8 699	54 232	16 384	79 315

Table II 52 Distribution of population aged 3-18 not studying full-time in school or educational institution by age group and sex; 1981

<i>Persons Not Studying Full-time by Sex</i>			
<i>Age Group</i>	<i>Male</i>	<i>Female</i>	<i>Sex ratio (males per 1 000 females)</i>
3	14 738	14 285	1 032
4-5	5 074	4 734	1 072
6-11	3 894	3 706	1 051
12-14	11 297	10 496	1 076
15-16	30 072	25 713	1 170
17-18	68 300	62 594	1 091
Total (3-18)	133 375	121 528	1 097

Table II 53 Percentage distribution of population aged 6-18 not studying full-time in school or educational institution by age group and educational attainment; 1981

<i>Persons Not Studying Full-time by Level of Education</i>					
<i>Age Group</i>	<i>No schooling/ Kindergarten</i>	<i>Primary</i>	<i>Secondary/ Matriculation</i>	<i>Post- secondary/ University</i>	<i>Total</i>
	%	%	%	%	%
6-11	57.4	42.6	—	—	100.0
12-14	6.9	55.4	37.7	—	100.0
15-16	3.0	31.4	65.5	0.1	100.0
17-18	1.9	27.8	69.1	1.2	100.0
Total (6-18)	4.7	32.0	62.6	0.7	100.0

Table II 54 Distribution of population with post-secondary or technical education by age group; 1981

<i>Age Group</i>	<i>Persons with post-secondary or technical education</i>	<i>Percentage of population</i>
14-19	14 141	2.2
20-24	55 484	9.5
25-29	47 594	9.9
30 and over	140 677	6.6
Total	257 896	6.7

Table II 55 Distribution of population with post-secondary or technical education by age group and whether studying; 1981

<i>Persons with Post-secondary or Technical Education by Whether Studying</i>				
<i>Age Group</i>	<i>Studying full-time</i>	<i>Studying part-time</i>	<i>Not studying*</i>	<i>Total</i>
14-19	8 751	4 072	1 318	14 141
20-24	22 518	10 530	22 436	55 484
25-29	2 068	3 185	42 341	47 594
30 and over	408	978	139 291	140 677
Total	33 745	18 765	205 386	257 896

* Including withdrawals who have not completed the respective courses.

Table II 56 Distribution of population with post-secondary or technical education by educational attainment and sex; 1981

<i>Persons with Post-secondary or Technical Education by Sex</i>			
<i>Educational Attainment</i>	<i>Male</i>	<i>Female</i>	<i>Sex ratio (males per 1 000 females)</i>
Craft courses in technical institute	7 637	712	10 726
Diploma courses in technical institute	11 476	8 290	1 384
Teacher and nurse training courses	7 814	22 140	353
Polytechnic	26 442	7 845	3 371
Post-secondary college	24 266	15 480	1 568
University	89 165	36 629	2 434
Total	166 800	91 096	1 831

Table II 57 Distribution of population with post-secondary or technical education by field of education and educational attainment; 1981

<i>Persons with Post-secondary or Technical Education by Level of Education</i>							
<i>Field of Education</i>	<i>Craft courses in technical institute</i>	<i>Diploma courses in technical institute</i>	<i>Teacher and nurse training courses</i>	<i>Poly- technic</i>	<i>Post- secondary college</i>	<i>University</i>	<i>Total</i>
Arts and social science	—	289	—	1 270	12 458	41 602	55 619
Pure science	—	99	—	1 087	2 529	14 849	18 564
Education	—	—	21 322	200	1 680	6 103	29 305
Business, commercial and computer studies	—	8 832	—	9 492	11 857	19 712	49 893
Medical and health related studies	—	157	8 632	817	1 677	12 117	23 400
Architecture and construction engineering	1 266	1 986	—	5 216	3 265	9 788	21 521
Mechanical, electrical, electronic and marine engineering	5 733	5 771	—	11 129	2 238	11 525	36 396
Textile, design and other industrial technology	804	1 520	—	3 722	713	1 851	8 610
Transport and other vocational studies (including social work and law)	546	1 112	—	1 354	3 329	8 247	14 588
Total	8 349	19 766	29 954	34 287	39 746	125 794	257 896

Table II 58 Percentage distribution of population with post-secondary or technical education by field of education and sex; 1981

<i>Field of Education</i>	<i>Persons with Post-secondary or Technical Education by Sex</i>		
	<i>Male</i>	<i>Female</i>	<i>Total</i>
	<i>%</i>	<i>%</i>	<i>%</i>
Arts and social science	19.9	24.6	21.6
Pure science	8.3	5.2	7.2
Education	6.9	19.5	11.4
Business, commercial and computer studies	16.7	24.2	19.3
Medical and health related studies	6.1	14.6	9.1
Architecture and construction engineering	11.9	1.8	8.3
Mechanical, electrical, electronic and marine engineering	20.5	2.4	14.1
Textile, design and other industrial technology	3.7	2.7	3.3
Transport and other vocational studies (including social work and law)	6.0	5.0	5.7
Total	100.0	100.0	100.0

Table II 59 Number of domestic households and average annual growth; 1961, 1971 and 1981

<i>Year</i>	<i>Number of domestic households</i>	<i>Average annual growth</i>	<i>Average annual growth of population</i>
		<i>%</i>	<i>%</i>
1961	687 209	—	—
1971	857 008	2.2	2.3
1981	1 244 738	3.8	2.4

Table II 60 Percentage distribution of domestic households by household size; 1961, 1971 and 1981

<i>Household Size</i>	<i>Domestic Households</i>		
	<i>1961</i>	<i>1971</i>	<i>1981</i>
	<i>%</i>	<i>%</i>	<i>%</i>
1	15.1	14.7	15.2
2	14.6	12.9	15.4
3	14.2	12.1	15.4
4	13.5	12.8	17.2
5	12.0	12.6	14.3
6	10.4	11.6	10.1
7	7.8	9.2	6.0
8	5.1	6.4	3.2
9	3.1	3.8	1.6
10 and over	4.2	3.9	1.6
Total	100.0	100.0	100.0

Table II 61 Average household size, number of children aged under 15 and persons aged 15 and over, and total fertility rates (per woman); 1961, 1971 and 1981

Year	Average household size	Average number of children aged under 15 per household	Average number of persons aged 15 and over per household		Total fertility rate (number of live births per woman)
1961	4.4	1.8	2.6		5.2
1971	4.5	1.6	2.9		3.4
1981	3.9	1.0	2.9		2.0

Table II 62 Percentage distribution of domestic households by household composition; 1976 and 1981

Household Composition	Domestic Households	
	1976	1981
	%	%
One person	14.8	15.2
One unextended nuclear family	60.2	54.4
One vertically-extended nuclear family	9.4	13.6
One horizontally-extended nuclear family	2.0	2.4
Two or more nuclear families	6.0	6.3
Non-family-nuclear households	7.6	8.1
Total	100.0	100.0

Table II 63 Average household size by household composition; 1976 and 1981

Household Composition	Average Household Size	
	1976	1981
One person	1.0	1.0
One unextended nuclear family	4.6	4.1
One vertically-extended nuclear family	6.0	5.5
One horizontally-extended nuclear family	5.4	5.1
Two or more nuclear families	7.4	7.3
Non-family-nuclear households	2.9	2.8

Table II 64 Age-sex-specific headship rates by age group and sex; 1971, 1976 and 1981

Age Group	Headship Rate by Sex								
	Male			Female			Overall		
	1971	1976	1981	1971	1976	1981	1971	1976	1981
	%	%	%	%	%	%	%	%	%
15-19	3.4	3.8	4.0	1.8	2.3	2.2	2.6	3.1	3.1
20-29	25.4	27.0	26.0	6.2	8.3	7.8	16.2	17.9	17.4
30-39	70.6	68.2	63.4	16.0	19.1	15.8	45.2	46.2	42.1
40-49	81.2	76.9	77.3	24.6	28.5	27.2	53.7	53.7	54.6
50-59	82.9	78.8	76.8	28.7	33.8	35.5	55.9	56.1	57.0
60 and over	73.1	71.9	70.9	25.4	30.3	33.7	43.3	47.1	50.1
Overall (15 and over)	53.2	49.2	48.3	16.3	18.7	18.2	34.8	34.0	33.9

Table II 65 Percentage distribution of working household heads* by industry; 1971, 1976 and 1981

<i>Industry</i>	<i>Working Household Heads*</i>		
	<i>1971</i>	<i>1976</i>	<i>1981</i>
	<i>%</i>	<i>%</i>	<i>%</i>
Agriculture and fishing	4.2	2.9	2.2
Mining and quarrying	0.3	0.1	0.1
Manufacturing	39.2	35.2	34.8
Electricity, gas and water	0.7	0.7	0.7
Construction	7.1	7.7	9.8
Wholesale and retail trade, restaurants and hotels	19.3	23.5	22.0
Transport, storage and communication	9.7	9.8	9.4
Financing, insurance, real estate and business services	2.6	3.2	3.7
Services	14.2	15.6	15.8
Unclassifiable	2.7	1.3	1.5
Total	100.0	100.0	100.0

* Including unemployed household heads with previous job.

Table II 66 Percentage distribution of working household heads* by occupation; 1971, 1976 and 1981

<i>Occupation</i>	<i>Working Household Heads*</i>		
	<i>1971</i>	<i>1976</i>	<i>1981</i>
	<i>%</i>	<i>%</i>	<i>%</i>
Professional, technical and related workers	4.6	5.5	6.0
Administrative and managerial workers	4.3	4.0	4.5
Clerical and related workers	6.8	7.3	7.1
Sales workers	13.7	15.6	13.4
Service workers	15.2	15.8	17.1
Agricultural workers and fisherfolk	4.1	3.1	2.4
Production and related workers, transport equipment operators and labourers	47.6	46.7	48.7
Armed forces and unclassifiable	3.7	2.0	0.8
Total	100.0	100.0	100.0

* Including unemployed household heads with previous job.

Table II 67 Projected number of domestic households by household size; 1986–2001

<i>Household Size</i>	<i>Domestic Households</i>			
	<i>1986</i>	<i>1991</i>	<i>1996</i>	<i>2001</i>
1	246 900	299 300	348 400	395 100
2	277 000	359 800	443 400	525 500
3	278 600	369 700	477 400	607 900
4	340 200	444 500	470 500	445 700
5	203 100	205 400	202 300	194 800
6	126 100	110 400	101 700	100 400
7	62 900	39 100	35 600	30 800
8	21 400	12 800	10 300	8 100
9 and over	16 700	11 100	6 900	4 900
Total	1 572 900	1 852 100	2 096 500	2 313 200

Table II 68 Percentage distribution of domestic households by household income; 1971, 1976 and 1981

Household Income (HK\$)	Domestic Households								
	1971	1976	1981	1971	1976	1981			
	%	%	%	%	%	%			
	<i>(At current prices)</i>			<i>(At 1981 prices)</i>					
Under 600	39.3	10.3	5.4	8.3	4.9	5.4			
600- 900	31.0	18.8	4.1	12.1	8.4	4.1			
1,000-1,999	21.5	40.5	19.0	43.4	32.6	19.0			
2,000-2,999	}	16.2	22.3	19.1	23.7	22.3			
3,000-3,999		}	16.2	10.0	6.7	12.3	16.2		
4,000-4,999			}	10.0	11.2	3.6	5.7	10.0	
5,000-6,999				}	14.2	6.4	2.9	6.5	11.2
7,000-9,999					}	6.4	5.4	2.1	3.0
10,000 and over	}					5.4	1.8	1.8	2.9
Total		100.0				100.0	100.0	100.0	100.0

Table II 69 Median household income at current prices by household size; 1971, 1976 and 1981

Household Size	Median Household Income (HK\$)		
	1971	1976	1981
1	439	706	1,272
2	626	1,182	2,445
3	705	1,364	2,865
4	747	1,483	3,146
5	757	1,580	3,463
6	764	1,710	3,887
7	787	1,876	4,391
8	839	2,098	4,991
9	907	2,209	5,527
10 and over	1,064	2,704	6,537
Overall	708	1,425	2,955

Table II 70 Median household income at 1981 prices and average annual increase; 1971, 1976 and 1981

Year	Median Household Income (HK\$)		
	At current prices	At 1981 prices	Average annual increase
			%
1971	708	1,600	—
1976	1,425	2,132	5.4
1981	2,955	2,955	7.4

Table II 71 Decile distribution of household income and Gini coefficients; 1971, 1976 and 1981

<i>Decile of Households</i>	<i>Percentage Income Share</i>					
	<i>1971</i>		<i>1976</i>		<i>1981</i>	
	<i>%</i>	<i>Cum %</i>	<i>%</i>	<i>Cum %</i>	<i>%</i>	<i>Cum %</i>
1st	2.3	2.3	1.9	1.9	1.4	1.4
2nd	3.9	6.2	3.5	5.4	3.2	4.6
3rd	5.1	11.3	4.6	10.0	4.4	9.0
4th	5.1	16.4	5.5	15.5	5.4	14.4
5th	7.0	23.4	6.8	22.3	6.5	20.9
6th	7.3	30.7	8.1	30.4	7.8	28.7
7th	9.0	39.7	8.8	39.2	9.4	38.1
8th	11.0	50.7	11.3	50.5	11.5	49.6
9th	14.7	65.4	15.9	66.4	15.2	64.8
10th	34.6	100.0	33.6	100.0	35.2	100.0
<i>Gini coefficient</i>	0.43		0.43		0.45	

Note: An increase in the Gini coefficient denotes a movement to greater inequality of income.

Table II 72 Gini coefficients by household size; 1971, 1976 and 1981

<i>Household Size</i>	<i>Gini Coefficient</i>		
	<i>1971</i>	<i>1976</i>	<i>1981</i>
1	0.42	0.46	0.50
2	0.43	0.43	0.45
3	0.42	0.41	0.41
4	0.42	0.41	0.41
5	0.40	0.40	0.39
6	0.38	0.38	0.37
7	0.37	0.36	0.36
8	0.36	0.34	0.35
9	0.36	0.34	0.35
10 and over	0.39	0.33	0.35

Table II 73 Average number of working members and ratios of non-working members to working members by household size; 1976 and 1981

<i>Household Size</i>	<i>Average Number of Working Members</i>		<i>Ratio of Non-working Members to Working Members</i>	
	<i>1976</i>	<i>1981</i>	<i>1976</i>	<i>1981</i>
1	0.7	0.7	0.4	0.4
2	1.3	1.4	0.5	0.4
3	1.5	1.6	1.0	0.8
4	1.7	1.8	1.4	1.2
5	2.0	2.1	1.5	1.3
6	2.3	2.5	1.7	1.4
7	2.6	3.0	1.7	1.4
8	3.0	3.4	1.6	1.3
9	3.4	3.9	1.7	1.3
10 and over	4.2	4.8	1.6	1.5
Overall	1.8	1.9	1.3	1.1

Table II 74 Distribution of domestic households with elderly persons aged 60 and over by household size and number of elderly persons in household; 1981

<i>Household Size</i>	<i>Domestic Households by Number of Elderly Persons</i>						<i>Total</i>
	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6 and over</i>	
1	59 534	—	—	—	—	—	59 534
2	39 500	19 324	—	—	—	—	58 824
3	34 568	15 112	1 231	—	—	—	50 911
4	35 999	12 302	1 064	165	—	—	49 530
5	40 133	10 863	879	145	10	—	52 030
6	34 695	10 617	713	93	31	—	46 149
7	23 455	7 448	690	81	5	10	31 689
8	13 141	4 524	524	22	6	11	18 228
9	6 437	2 460	376	57	9	6	9 345
10 and over	6 847	3 181	422	90	28	31	10 599
Total	294 309	85 831	5 899	653	89	58	386 839

Table II 75 Distribution of domestic households with elderly persons aged 60 and over by household composition; 1981

<i>Household Composition</i>	<i>Domestic households with elderly persons</i>	
		<i>%</i>
One person	59 534	15.4
One unextended nuclear family	121 665	31.4
One vertically-extended nuclear family	120 340	31.1
One horizontally-extended nuclear family	5 082	1.3
Two or more nuclear families	50 186	13.0
Non-family-nuclear households	30 032	7.8
Total	386 839	100.0

Table II 76 Distribution of single person households by age group and sex; 1981

<i>Age Group</i>	<i>Single Person Households by Sex</i>					
	<i>Male</i>	<i>Female</i>	<i>Total</i>	<i>Male</i>	<i>Female</i>	<i>Total</i>
				<i>%</i>	<i>%</i>	<i>%</i>
Under 20	4 242	1 580	5 822	2.3	0.8	3.1
20-29	26 512	7 658	34 170	14.0	4.1	18.1
30-39	24 379	3 994	28 373	12.9	2.1	15.0
40-49	26 167	3 433	29 600	13.8	1.8	15.6
50-59	23 329	8 259	31 588	12.3	4.4	16.7
60 and over	26 099	33 435	59 534	13.8	17.7	31.5
Total	130 728	58 359	189 087	69.1	30.9	100.0

Table II 77 Distribution of single person households by household income and whether working; 1981

Household Income (HK\$)	Single Person Households by Whether Working					
	Working		Not working		Total	
		%		%		%
Under 600	9 200	6.7	34 937	68.6	44 137	23.3
600– 999	18 787	13.6	5 743	11.3	24 530	13.0
1,000–1,499	41 438	30.0	4 454	8.7	45 892	24.3
1,500–1,999	28 474	20.6	1 934	3.8	30 408	16.1
2,000–2,999	22 695	16.4	1 673	3.3	24 368	12.9
3,000–3,999	6 957	5.0	770	1.5	7 727	4.1
4,000–4,999	2 939	2.1	353	0.7	3 292	1.7
5,000 and over	7 686	5.6	1 047	2.1	8 733	4.6
Total	138 176	100.0	50 911	100.0	189 087	100.0

Table II 78 Distribution of stock† of living quarters by type; 1981

Type of Living Quarter	Living quarters	
		%
Public and aided housing blocks		
Self-contained	317 804	26.8
Non self-contained	115 858	9.8
Private housing blocks	466 228	39.3
Housing Authority home ownership estates	8 751	0.7
Modern houses/Modern village houses	30 524	2.6
Simple stone structures	64 443	5.4
Institutions	12 017	1.0
Other permanent housing	47 311	4.0
Temporary housing	123 426	10.4
Total	1 186 362	100.0

† Stock of living quarters includes occupied living quarters, vacant living quarters, and living quarters where occupants were temporarily absent during the census reference date. Figures are based on the complete count.

Table II 79 Distribution of occupied living quarters by type; 1971, 1976 and 1981

Type of Living Quarter	Living Quarters					
	1971		1976		1981	
		%		%		%
Public and aided housing blocks						
Self-contained	141 964	21.7	220 430	26.0	301 149	28.4
Non self-contained	118 067	18.0	117 240	13.8	103 010	9.7
Private housing blocks	260 800	39.9	352 080	41.6	421 577	39.7
Housing Authority home ownership estates	—	—	—	—	7 356	0.7
Modern houses/Modern village houses	7 214	1.1	5 480	0.6	22 708	2.1
Simple stone structures*	49 876	7.6	34 080	4.0	50 424	4.8
Institutions	10 551	1.6	13 140	1.6	13 298	1.3
Other permanent housing			16 470	1.9	35 081	3.3
Temporary housing	66 338	10.1	88 460	10.5	106 483	10.0
Total	654 810	100.0	847 380	100.0	1 061 086	100.0

* The figure for 1971 includes resettlement cottages. Simple stone structures in urban areas in 1976 were classified under temporary housing.

Table II 80 Percentage distribution of living quarters by type of living quarter and number of occupants; 1981

<i>Type of Living Quarter</i>	<i>Living Quarters by Number of Occupants</i>					<i>Total</i>
	<i>1-2</i>	<i>3-4</i>	<i>5-6</i>	<i>7-8</i>	<i>9 and over</i>	
	<i>%</i>	<i>%</i>	<i>%</i>	<i>%</i>	<i>%</i>	
Public and aided housing blocks						
Self-contained	11.5	32.3	38.0	14.6	3.6	100.0
Non self-contained	24.0	33.6	27.1	11.6	3.7	100.0
Private housing blocks	18.2	32.9	26.7	12.6	9.6	100.0
Housing Authority home ownership estates	16.7	41.5	30.4	9.7	1.7	100.0
Modern houses/Modern village houses	24.7	28.8	24.1	12.7	9.7	100.0
Simple stone structures	29.4	26.3	21.7	12.3	10.3	100.0
Institutions	60.3	17.6	9.5	6.0	6.6	100.0
Other permanent housing	36.6	34.8	21.4	4.8	2.4	100.0
Temporary housing	33.8	32.1	19.3	9.0	5.8	100.0
Total	20.2	32.4	28.5	12.3	6.6	100.0

Table II 81 Average number of occupants per living quarter by type of living quarter; 1971, 1976 and 1981

<i>Type of Living Quarter</i>	<i>Average Number of Occupants per Living Quarter</i>		
	<i>1971</i>	<i>1976</i>	<i>1981</i>
Public and aided housing blocks			
Self-contained	5.6	5.2	4.9
Non self-contained	5.5	4.9	4.2
Private housing blocks	6.5	5.2	4.9
Housing Authority home ownership estates	—	—	4.3
Modern houses/Modern village houses	5.4	4.6	4.7
Simple stone structures	5.5	4.5	4.7
Institutions	} 4.6	3.4	4.3
Other permanent housing		3.9	3.4
Temporary housing		4.9	4.0
Overall	5.8	5.0	4.7

Table II 82 Distribution of land-based domestic households and population in land-based domestic households by broad type of living quarter; 1971, 1976 and 1981

<i>Broad Type of Living Quarter</i>	<i>Land-based Domestic Households</i>			<i>Population in Domestic Households</i>		
	<i>1971</i>	<i>1976</i>	<i>1981</i>	<i>1971</i>	<i>1976</i>	<i>1981</i>
Public and aided housing	263 174	340 740	413 065	1 428 390	1 725 290	1 916 502
Private housing*	} 511 860	549 680	700 426	} 2 043 420	2 036 710	2 487 291
Institutions		3 130	2 313		10 620	6 777
Housing Authority home ownership estates		—	—		7 176	—
Temporary housing	71 636	96 740	114 663	320 060	395 770	413 030
Total	846 670	990 290	1 237 643	3 791 870	4 168 390	4 854 330

* The figures for 1971 include resettlement cottages. Simple stone structures in urban areas in 1976 were classified under temporary housing.

Table II 83 Distribution of land-based domestic households by type of living quarter and accommodation; 1971, 1976 and 1981

Type of Living Quarter and Accommodation	Land-based Domestic Households					
	1971		1976		1981	
		%		%		%
Public and aided housing blocks						
Self-contained	142 604	16.9	220 190	22.2	308 283	24.9
Non self-contained	120 570	14.2	120 550	12.2	104 782	8.4
Private housing blocks						
Self-contained			478 330	48.3	580 004	46.8
Whole house/Flat			244 140	24.6	321 890	26.0
Room/Cubicle	} 434 888	51.3	216 760	21.9	229 305	18.5
Bedspace/Cockloft, etc.			17 430	1.8	28 809	2.3
Non self-contained			17 530	1.8	6 834	0.6
Housing Authority home ownership estates	—	—	—	—	7 176	0.6
Modern houses/Modern village houses	8 625	1.0	5 860	0.6	26 328	2.1
Simple stone structures*	57 553	6.8	34 710	3.5	57 775	4.7
Institutions	} 10 794	1.3	3 130	0.3	2 313	0.2
Other permanent housing			13 250	1.3	29 485	2.4
Temporary housing	71 636	8.5	96 740	9.8	114 663	9.3
Total	846 670	100.0	990 290	100.0	1 237 643	100.0

* The figure for 1971 includes resettlement cottages. Simple stone structures in urban areas in 1976 were classified under temporary housing.

Table II 84 Percentage distribution of land-based domestic households by type of living quarter and whether sharing a living quarter with other household(s); 1971, 1976 and 1981

Type of Living Quarter	Land-based Domestic Households by Whether Sharing a Living Quarter					
	1971		1976		1981	
	Sharing	Not sharing	Sharing	Not sharing	Sharing	Not sharing
	%	%	%	%	%	%
Public and aided housing blocks						
Self-contained	0.8	99.2	—	100.0	1.9	98.1
Non self-contained	4.3	95.7	5.9	94.1	5.2	94.8
Private housing blocks	57.9	42.1	46.5	53.5	43.4	56.6
Housing Authority home ownership estates	—	—	—	—	0.1	99.9
Modern houses/Modern village houses	24.6	75.4	13.3	86.7	19.1	80.9
Simple stone structures*	20.1	79.9	5.0	95.0	20.8	79.2
Institutions	} 2.2	} 97.8	7.3	92.7	1.3	98.7
Other permanent housing			5.6	94.4	10.3	89.7
Temporary housing	12.9	87.1	18.3	81.7	16.4	83.6
Total	33.2	66.8	26.1	73.9	24.6	75.4

* The figures for 1971 include resettlement cottages. Simple stones structures in urban areas in 1976 were classified under temporary housing.

Table II 85 Average number of domestic households per living quarter by type of living quarter; 1971, 1976 and 1981

<i>Type of Living Quarter</i>	<i>Average Number of Domestic Households per Living Quarter</i>		
	<i>1971</i>	<i>1976</i>	<i>1981†</i>
Public and aided housing blocks			
Self-contained	1.00	1.00	1.01
Non self-contained	1.02	1.03	1.03
Private housing blocks	1.67	1.45	1.41
Housing Authority home ownership estates	—	—	1.00
Modern houses/Modern village houses	1.20	1.08	1.11
Simple stone structures*	1.15	1.03	1.15
Institutions	} 1.02	1.05	1.03
Other permanent housing		1.04	1.06
Temporary housing	1.08	1.13	1.11
Overall	1.29	1.21	1.19

* The figure for 1971 includes resettlement cottages. Simple stone structures in urban areas in 1976 were classified under temporary housing.

† Figures are based on the complete count.

Table II 86 Percentage distribution of land-based domestic households by tenure; 1971, 1976 and 1981

<i>Tenure</i>	<i>Land-based Domestic Households</i>		
	<i>1971</i>	<i>1976</i>	<i>1981</i>
	<i>%</i>	<i>%</i>	<i>%</i>
Owner-occupier	18.1	23.2	27.9
Sole tenant	45.5	46.3	44.0
Main tenant	5.9	4.3	3.9
Sub-tenant	20.2	14.5	11.7
Co-tenant	4.1	4.7	5.6
Rent free (excluding premises provided by employer)	6.2	3.5	2.5
Provided/Subsidised by employer	*	3.5	4.4
Total	100.0	100.0	100.0

* Information is not separately available.

Table II 87 Distribution of land-based domestic households by type of living quarter and tenure; 1981

<i>Type of Living Quarter</i>	<i>Land-based Domestic Households by Tenure</i>							<i>Total</i>
	<i>Owner-occupier</i>	<i>Sole tenant</i>	<i>Main tenant</i>	<i>Sub-tenant</i>	<i>Co-tenant</i>	<i>Rent free*</i>	<i>Provided/ Subsidised by employer</i>	
Public and aided housing blocks								
Self-contained	—	299 897	—	—	6 219	387	1 780	308 283
Non self-contained	—	97 874	—	—	6 166	318	424	104 782
Private housing blocks	231 793	91 758	46 465	138 130	48 316	10 209	20 167	586 838
Housing Authority home ownership estates	7 136	10	—	—	—	4	26	7 176
Modern houses/Modern village houses	14 701	5 501	533	1 415	1 618	1 023	1 537	26 328
Simple stone structures	34 124	11 857	813	3 332	2 945	3 472	1 232	57 775
Institutions	—	—	—	—	—	214	2 099	2 313
Other permanent housing	56	953	—	—	—	1 879	26 597	29 485
Temporary housing	57 216	37 308	823	2 505	3 646	13 028	137	114 663
Total	345 026	545 158	48 634	145 382	68 910	30 534	53 999	1 237 643

* Excluding premises provided by employer.

Table II 88 Percentage distribution of land-based rent-paying domestic households by household rent and broad type of living quarter; 1981

<i>Household Rent (HK\$)</i>	<i>Land-based Rent-paying Domestic Households by Broad Type of Living Quarter</i>			
	<i>Public and aided housing</i>	<i>Private housing*</i>	<i>Institutions</i>	<i>Temporary housing</i>
	%	%	%	%
Under 50	4.1	2.9	7.4	22.2
50– 99	28.2	6.9	10.5	46.1
100– 199	34.6	13.4	16.9	14.9
200– 399	31.6	23.1	8.4	10.6
400– 599	1.4	17.2	39.3	3.6
600– 999	0.1	19.4	16.4	2.3
1,000–1,999	—	12.0	1.1	0.3
2,000–2,999	—	2.8	—	—
3,000 and over	—	2.3	—	—
Total	100.0	100.0	100.0	100.0
<i>Rent free</i>	(0.2%)	(47.1%)	(41.3%)	(61.5%)

* Including Housing Authority home ownership estates.

Table II 89 Median household rent* by broad type of living quarter; 1971, 1976 and 1981

<i>Broad Type of Living Quarter</i>	<i>Median Household Rent* (HK\$)</i>					
	<i>1971</i>	<i>1976</i>	<i>1981</i>	<i>1971</i>	<i>1976</i>	<i>1981</i>
	<i>(At current prices)</i>			<i>(At 1981 prices)</i>		
Public and aided housing	41	60	151	93	90	151
Private housing and institutions	152	274	442	344	411	442
Temporary housing	44	50	80	99	75	80

* Figures on median rent cover a wide variety of types of accommodation. See Chapter 5 for details.

Table II 90 Percentage of household income paid on rent by type of living quarter and accommodation; 1971, 1976 and 1981

<i>Type of Living Quarter and Accommodation</i>	<i>Percentage of Household Income Paid on Rent</i>		
	<i>1971*</i>	<i>1976</i>	<i>1981</i>
	%	%	%
Public and aided housing blocks	6.3	4.4	5.2
Self-contained		6.6	6.1
Non self-contained		2.6	3.1
Private housing and institutions	19.6	19.5	16.2
Private housing blocks			
—self-contained: whole house/flat		23.7	19.9
—self-contained: rooms, bedspaces, etc.		20.0	16.5
—non self-contained: whole house/flat		8.5	13.7
—non self-contained: rooms, bedspaces, etc.		8.8	7.3
Modern houses/Modern village houses		14.1	16.7
Simple stone structures		8.2	7.1
Institutions and other permanent housing		3.8	4.2
Temporary housing	7.7	4.4	3.7

* Figures by detailed type of living quarter and accommodation are not available from the 1971 Census.

Table II 91 Percentage distribution of land-based domestic households by household size and broad type of living quarter; 1971 and 1981

<i>Household Size</i>	<i>Land-based Domestic Households by Broad Type of Living Quarter</i>					
	<i>1971</i>			<i>1981</i>		
	<i>Public and aided housing</i>	<i>Private housing and institutions*</i>	<i>Temporary housing</i>	<i>Public and aided housing</i>	<i>Private housing and institutions*</i>	<i>Temporary housing</i>
	<i>%</i>	<i>%</i>	<i>%</i>	<i>%</i>	<i>%</i>	<i>%</i>
1	5.4	19.1	19.4	6.8	19.5	20.0
2	7.2	16.1	12.0	9.5	18.5	17.9
3	9.1	14.1	10.5	13.1	16.5	17.3
4	13.1	13.0	10.4	19.0	16.4	15.8
5	16.0	11.1	10.9	19.3	12.0	10.8
6	16.6	9.2	11.3	15.1	7.7	7.4
7	13.6	6.9	9.7	9.0	4.5	4.6
8	9.1	4.7	7.2	4.6	2.4	2.8
9	5.2	2.8	4.3	2.1	1.2	1.5
10 and over	4.7	3.0	4.3	1.5	1.3	1.9
Total	100.0	100.0	100.0	100.0	100.0	100.0

* Including resettlement cottages in 1971 and Housing Authority home ownership estates in 1981.

Table II 92 Average household size by broad type of living quarter and whether sharing a living quarter with other household(s); 1981

<i>Broad Type of Living Quarter</i>	<i>Average Household Size by Whether Sharing a Living Quarter</i>	
	<i>Sharing</i>	<i>Not sharing</i>
Public and aided housing	1.9	4.7
Private housing	2.5	4.2
Housing Authority home ownership estates	1.4	4.3
Institutions	1.3	3.0
Temporary housing	3.0	3.7
Overall	2.5	4.4

Table II 93 Percentage distribution of land-based domestic households by household income and broad type of living quarter; 1981

<i>Land-based Domestic Households by Broad Type of Living Quarter</i>						
<i>Household Income (HK\$)</i>	<i>Public and aided housing</i>	<i>Private housing</i>	<i>Housing Authority home ownership estates</i>	<i>Institutions</i>	<i>Temporary housing</i>	<i>Total</i>
	%	%	%	%	%	%
Under 600	5.2	5.0	0.6	7.5	9.1	5.4
600– 999	3.8	4.1	0.6	2.7	5.2	4.1
1 000–1 999	18.1	18.4	3.7	12.0	27.3	19.1
2 000–2 999	25.4	19.9	10.2	20.8	27.2	22.3
3 000–3 999	18.6	14.9	20.2	13.6	14.0	16.1
4 000–4 999	11.2	9.7	17.8	5.5	7.3	10.0
5 000–6 999	11.7	11.6	24.9	10.6	6.4	11.2
7 000–9 999	4.7	7.9	14.8	13.0	2.6	6.4
10 000 and over	1.3	8.5	7.2	14.3	0.9	5.4
Total	100.0	100.0	100.0	100.0	100.0	100.0
<i>Median household income (HK\$)</i>	2 887	3 144	4 785	3 504	2 256	2 953

Table II 94 Percentage distribution of land-based population by age group, sex and broad type of living quarter; 1981

<i>Land-based Population by Broad Type of Living Quarter</i>						
<i>Age Group</i>	<i>Sex</i>	<i>Public and aided housing</i>	<i>Private housing</i>	<i>Housing Authority home ownership estates</i>	<i>Institutions</i>	<i>Temporary housing</i>
		%	%	%	%	%
Under 15	M	13.4	12.2	11.6	7.2	14.5
	F	12.5	11.3	10.2	5.9	13.3
15–24	M	14.2	10.2	10.4	18.5	12.6
	F	13.0	9.6	11.4	7.9	10.2
25–44	M	11.4	17.4	17.7	19.2	17.5
	F	10.4	14.0	16.3	9.5	11.2
45–64	M	9.8	9.6	8.0	9.3	8.8
	F	9.3	8.7	9.6	4.8	6.2
65 and over	M	2.4	2.8	2.0	6.0	2.6
	F	3.6	4.2	2.8	11.7	3.1
Total	M	51.2	52.2	49.7	60.2	56.0
	F	48.8	47.8	50.3	39.8	44.0
	T	100.0	100.0	100.0	100.0	100.0

Table II 95 Percentage distribution of land-based population aged 15 and over by educational attainment and broad type of living quarter; 1981

<i>Land-based Population Aged 15 and Over by Broad Type of Living Quarter</i>					
<i>Educational Attainment</i>	<i>Public and aided housing</i>	<i>Private housing</i>	<i>Housing Authority home ownership estates</i>	<i>Institutions</i>	<i>Temporary housing</i>
	%	%	%	%	%
No schooling/Kindergarten	17.7	13.6	10.7	24.8	20.0
Primary	37.9	30.4	24.3	31.8	42.7
Secondary/Matriculation	41.2	46.1	54.7	36.1	35.0
Post-secondary/University	3.2	9.9	10.3	7.3	2.3
Total	100.0	100.0	100.0	100.0	100.0

Table II 96 School attendance ratios of land-based population by age group and broad type of living quarter; 1981

<i>School Attendance Ratio of Land-based Population by Broad Type of Living Quarter</i>					
<i>Age Group</i>	<i>Public and aided housing</i>	<i>Private housing</i>	<i>Housing Authority home ownership estates</i>	<i>Institutions</i>	<i>Temporary housing</i>
	%	%	%	%	%
3- 5	84.0	84.9	90.3	67.1	78.6
6-11	99.3	98.7	99.4	84.2	97.7
12-14	95.0	91.1	95.6	61.5	86.3
15-16	76.4	75.3	88.4	29.0	58.8
17-18	47.0	47.2	64.3	11.9	28.5

Table II 97 Percentage distribution of land-based working population by occupation and broad type of living quarter; 1981

<i>Land-based Working Population by Broad Type of Living Quarter</i>					
<i>Occupation</i>	<i>Public and aided housing</i>	<i>Private housing</i>	<i>Housing Authority home ownership estates</i>	<i>Institutions</i>	<i>Temporary housing</i>
	%	%	%	%	%
Professional, technical and related workers	3.1	8.6	12.0	16.9	1.6
Administrative and managerial workers	0.5	4.6	5.2	1.2	0.2
Clerical and related workers	12.1	13.9	24.0	5.3	3.8
Sales workers	8.5	12.2	9.9	3.6	8.2
Service workers	15.6	16.2	9.8	22.4	13.3
Agricultural workers and fisherfolk	0.4	1.3	0.3	1.3	6.5
Production and related workers, transport equipment operators and labourers	59.4	42.5	38.0	21.5	65.8
Armed forces and unclassifiable	0.4	0.7	0.8	27.8	0.6
Total	100.0	100.0	100.0	100.0	100.0

Table II 98 Median income from main employment of land-based working population* in the different broad type of living quarter; 1981

<i>Broad Type of Living Quarter</i>	<i>Median income from main employment (HK\$) of land-based working population*</i>
Public and aided housing	1,396
Private housing	1,702
Housing Authority home ownership estates	2,034
Institutions	1,855
Temporary housing	1,352

* Excluding unpaid workers.

III Locational Characteristics and Population Movement

Table III 1 Distribution of population by broad census area; 1961, 1971 and 1981

<i>Broad Census Area</i>	<i>1961</i>	<i>1971</i>	<i>Population</i>			
			<i>1981</i>	<i>1961</i>	<i>1971</i>	<i>1981</i>
				<i>%</i>	<i>%</i>	<i>%</i>
Hong Kong Island	1 004 875	996 183	1 183 621	32.1	25.3	23.7
Kowloon	725 177	716 272	799 123	23.2	18.2	16.0
New Kowloon	852 849	1 468 699	1 651 064	27.2	37.3	33.2
New Territories	409 945	675 582	1 303 005	13.1	17.2	26.1
New towns	N.A.	395 449	939 259	N.A.	10.1	18.8
Other areas	N.A.	280 133	363 746	N.A.	7.1	7.3
Marine	136 802	79 894	49 747	4.4	2.0	1.0
Total	3 129 648	3 936 630	4 986 560	100.0	100.0	100.0

Table III 2 Percentage distribution of domestic households in major new towns by household size and whether moved; 1981

<i>Household Size</i>	<i>Domestic Households by Whether Moved</i>					
	<i>Tsuen Wan New Town</i>		<i>Sha Tin New Town</i>		<i>Tuen Mun New Town</i>	
	<i>Moved</i>	<i>Not moved</i>	<i>Moved</i>	<i>Not moved</i>	<i>Moved</i>	<i>Not moved</i>
	<i>%</i>	<i>%</i>	<i>%</i>	<i>%</i>	<i>%</i>	<i>%</i>
1	10.9	9.0	6.8	11.7	4.2	14.1
2	15.5	11.1	10.7	12.8	6.2	12.3
3	17.1	13.7	17.6	14.5	18.4	14.4
4	21.6	17.6	23.9	19.4	37.1	16.5
5	15.3	18.3	16.5	15.9	20.3	15.0
6	9.8	14.0	10.5	10.9	8.0	11.9
7	5.1	8.3	5.8	7.1	3.1	6.4
8	2.4	4.3	3.4	3.0	1.5	4.6
9	1.2	2.0	2.7	2.2	0.6	2.2
10 and over	1.1	1.7	2.1	2.5	0.6	2.6
Total	100.0	100.0	100.0	100.0	100.0	100.0

Note: A domestic household is regarded as 'moved' if the head of household moved between census districts or from overseas to Hong Kong during the past 5 years.

Table III 3 Percentage distribution of domestic households in major new towns by household income and whether moved; 1981

Household Income (HK\$)	Domestic Households by Whether Moved					
	Tsuen Wan New Town		Sha Tin New Town		Tuen Mun New Town	
	Moved	Not moved	Moved	Not moved	Moved	Not moved
	%	%	%	%	%	%
Under 600	2.0	3.9	1.8	5.1	0.5	9.1
600– 999	2.0	3.7	1.8	3.9	2.5	4.6
1,000–1,999	18.4	19.3	14.3	19.7	22.1	22.0
2,000–2,999	30.1	26.7	26.7	26.5	47.9	24.1
3,000–3,999	20.4	19.3	18.1	18.2	17.6	16.5
4,000–4,999	9.9	11.0	11.6	9.2	4.9	8.5
5,000–6,999	10.8	10.7	14.2	9.5	3.1	10.0
7,000–9,999	4.5	4.1	7.1	5.3	1.0	3.5
10,000 and over	1.9	1.3	4.4	2.6	0.4	1.7
Total	100.0	100.0	100.0	100.0	100.0	100.0

Note: A domestic household is regarded as 'moved' if the head of household moved between census districts or from overseas to Hong Kong during the past 5 years.

Table III 4 Percentage distribution of domestic households in major new towns by household composition and whether moved; 1981

Household Composition	Domestic Households by Whether Moved					
	Tsuen Wan New Town		Sha Tin New Town		Tuen Mun New Town	
	Moved	Not moved	Moved	Not moved	Moved	Not moved
	%	%	%	%	%	%
One person	10.9	9.0	6.8	11.7	4.2	14.1
One unextended nuclear family	59.9	60.7	65.8	57.1	80.0	54.8
One vertically-extended nuclear family	12.0	15.4	13.1	12.9	9.4	12.8
One horizontally-extended nuclear family	3.0	2.3	2.7	2.7	1.5	2.3
Two or more nuclear families	5.5	6.0	7.4	8.8	2.9	6.5
Non-family-nuclear households	8.7	6.6	4.2	6.8	2.0	9.5
Total	100.0	100.0	100.0	100.0	100.0	100.0

Note: A domestic household is regarded as 'moved' if the head of household moved between census districts or from overseas to Hong Kong during the past 5 years.

Table III 5 Density of population by broad census area; 1961, 1971 and 1981

Broad Census Area	Population Density		
	1961	1971	1981
	(Persons per km ²)		
Hong Kong Island	13 435	12 933	15 281
Kowloon	84 816	78 711	87 022
New Kowloon	27 631	39 489	45 154
New Territories	449	747	1 426
New towns	N.A.	6 079	12 369
Other areas	N.A.	334	434
Overall	2 916	3 754	4 760

Table III 6 Average annual growth rates of population by broad census area; 1961–1971 and 1971–1981

<i>Broad Census Area</i>	<i>Average Annual Growth Rate of Population</i>	
	<i>1961–1971</i>	<i>1971–1981</i>
	%	%
Hong Kong Island	-0.1	1.7
Kowloon	-0.1	1.1
New Kowloon	5.6	1.2
New Territories	5.1	6.8
New towns	N.A.	9.0
Other areas	N.A.	2.6
Marine	-5.2	-4.6
Overall	2.3	2.4

Table III 7 Distribution of population by administrative district; 1981

<i>Administrative District</i>	<i>Population</i>	
		%
Hong Kong Island		
Central and Western	277 495	5.6
Wan Chai	229 209	4.6
Eastern	467 850	9.4
Southern	228 788	4.6
Kowloon		
Kowloon City	479 773	9.6
Kwun Tong	611 285	12.4
Mong Kok	240 822	4.8
Sham Shui Po	455 605	9.1
Wong Tai Sin	491 482	9.9
Yau Ma Tei	179 312	3.6
New Territories		
Islands	50 599	1.0
North	114 205	2.3
Sai Kung	44 576	0.9
Sha Tin	115 798	2.3
Tai Po	75 808	1.5
Tsuen Wan	610 459	12.2
Tuen Mun	126 883	2.5
Yuen Long	186 611	3.7
Total	4 986 560	100.0

Table III 8 Percentage distribution of the land-based population* aged 5 and over by type of movement and broad census area; 1981

<i>Land-based Population* Aged 5 and Over by Broad Census Area</i>						
<i>Type of Movement</i>	<i>Hong Kong Island</i>	<i>Kowloon</i>	<i>New Kowloon</i>	<i>New towns</i>	<i>Other areas in New Territories</i>	<i>Total</i>
	<i>%</i>	<i>%</i>	<i>%</i>	<i>%</i>	<i>%</i>	<i>%</i>
<i>Moved within census districts</i>						
Within tertiary planning unit	8.7	6.8	7.5	6.4	5.6	7.3
Between tertiary planning units of the same census district	5.7	4.0	2.2	9.7	1.9	4.7
Sub-total	14.4	10.8	9.7	16.1	7.5	12.0
<i>Moved between census districts/from overseas to Hong Kong</i>						
Between census districts of the same census area	11.7	5.3	8.1	1.6	1.7	6.9
Between census areas	5.5	11.0	6.5	26.0	8.1	10.7
Marine to land	0.6	0.2	0.1	0.4	0.9	0.4
Overseas to Hong Kong	9.1	9.9	7.3	7.1	9.5	8.3
<i>Not moved</i>	58.7	62.8	68.3	48.8	72.3	61.7
<i>Total</i>	100.0	100.0	100.0	100.0	100.0	100.0

* Excluding persons in collective households who were in Hong Kong 5 years ago.

Table III 9 Movement of persons* within Hong Kong by broad area of origin and broad area of destination; 1981

<i>Internal Movement by Broad Area of Destination</i>						
<i>Broad Area of Origin</i>	<i>Hong Kong Island</i>	<i>Kowloon</i>	<i>New Kowloon</i>	<i>New towns</i>	<i>Other areas in New Territories</i>	<i>Total</i>
Hong Kong Island	126 317	15 188	19 907	26 099	4 657	192 168
Kowloon	21 126	38 544	53 898	56 974	5 377	175 919
New Kowloon	26 232	49 898	123 646	109 335	9 081	318 192
New Territories	11 448	15 493	24 905	39 818	12 121	103 785
New towns	7 159	10 778	18 088	21 221	9 373	66 619
Other areas	4 289	4 715	6 817	18 597	2 748	37 166
Marine	6 919	1 104	1 932	3 363	2 748	16 066
<i>Total</i>	192 042	120 227	224 288	235 589	33 984	806 130

* Excluding persons aged under 5 and persons in collective households.

Table III 10 Percentage distribution of population* aged 5 and over in major new towns by age group, sex and whether moved; 1981

Age Group	<i>Population* by Whether Moved</i>					
	<i>Tsuen Wan New Town</i>		<i>Sha Tin New Town</i>		<i>Tuen Mun New Town</i>	
	<i>Moved</i>	<i>Not moved</i>	<i>Moved</i>	<i>Not moved</i>	<i>Moved</i>	<i>Not moved</i>
	%	%	%	%	%	%
<i>Male</i>						
5-14	20.9	23.8	22.8	20.5	29.7	24.5
15-24	24.0	25.8	22.1	24.6	11.7	24.7
25-44	39.5	26.3	36.5	29.9	47.9	25.4
45-64	12.4	19.8	15.2	18.9	8.4	19.1
65 and over	3.2	4.3	3.4	6.1	2.3	6.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
<i>Female</i>						
5-14	21.4	24.4	21.5	21.2	28.4	24.4
15-24	24.5	25.6	23.5	24.9	13.5	26.2
25-44	35.9	25.4	34.3	25.8	46.7	21.3
45-64	12.7	17.7	14.8	19.5	7.9	18.5
65 and over	5.5	6.9	5.9	8.6	3.5	9.6
Total	100.0	100.0	100.0	100.0	100.0	100.0
<i>Total</i>						
5-14	21.1	24.1	22.1	20.8	29.1	24.5
15-24	24.2	25.7	22.8	24.7	12.5	25.4
25-44	37.9	25.9	35.4	28.0	47.3	23.4
45-64	12.5	18.8	15.0	19.2	8.2	18.8
65 and over	4.3	5.5	4.7	7.3	2.9	7.9
Total	100.0	100.0	100.0	100.0	100.0	100.0

* Excluding persons in collective households who were in Hong Kong 5 years ago.

Table III 11 Labour force participation rates of population* in major new towns by age group, sex and whether moved; 1981

Age Group	<i>Labour Force Participation Rate of Population* by Whether Moved</i>					
	<i>Tsuen Wan New Town</i>		<i>Sha Tin New Town</i>		<i>Tuen Mun New Town</i>	
	<i>Moved</i>	<i>Not moved</i>	<i>Moved</i>	<i>Not moved</i>	<i>Moved</i>	<i>Not moved</i>
	%	%	%	%	%	%
<i>Male</i>						
15-19	60.4	44.4	39.3	46.3	60.1	52.7
20-24	96.4	92.6	90.5	92.5	95.7	92.7
25-34	99.4	99.4	98.8	98.7	99.3	99.3
35-44	99.6	99.4	98.8	98.8	99.5	99.6
45-54	96.5	97.4	96.0	91.4	96.9	95.7
55 and over	51.8	63.1	57.4	57.3	54.5	56.7
Overall	89.1	82.1	84.3	80.2	92.4	81.5
<i>Female</i>						
15-19	59.8	43.9	41.3	38.9	51.2	51.1
20-24	78.2	84.6	74.5	81.3	53.3	74.2
25-34	52.5	56.2	50.0	43.4	31.4	49.7
35-44	60.2	58.1	47.7	47.7	52.2	61.1
45-54	48.4	53.4	41.1	43.7	49.2	55.5
55 and over	22.9	26.9	19.9	23.6	16.9	24.6
Overall	54.5	52.4	47.0	44.4	37.0	49.9

* Excluding persons in collective households who were in Hong Kong 5 years ago.

Table III 12 Percentage distribution of working population* in major new towns by occupation and whether moved; 1981

Occupation	<i>Working Population* by Whether Moved</i>					
	<i>Tsuen Wan New Town</i>		<i>Sha Tin New Town</i>		<i>Tuen Mun New Town</i>	
	<i>Moved</i>	<i>Not moved</i>	<i>Moved</i>	<i>Not moved</i>	<i>Moved</i>	<i>Not moved</i>
	%	%	%	%	%	%
Professional, technical and related workers	4.1	2.8	7.2	4.6	2.0	3.3
Administrative and managerial workers	1.3	0.9	3.2	1.5	0.5	0.2
Clerical and related workers	8.3	8.5	13.1	10.3	4.5	5.1
Sales workers	6.6	8.4	7.8	11.3	6.2	13.8
Service workers	12.1	12.7	17.0	15.9	15.0	19.6
Agricultural workers and fisherfolk	0.2	0.5	0.6	2.4	0.4	3.2
Production and related workers, transport equipment operators and labourers	67.0	65.9	50.5	53.5	70.6	54.2
Armed forces and unclassifiable	0.4	0.3	0.6	0.5	0.8	0.6
Total	100.0	100.0	100.0	100.0	100.0	100.0

* Excluding persons in collective households who were in Hong Kong 5 years ago.

Table III 13 Percentage distribution of population in conurbation and major new towns by age group and sex; 1981

Age Group	<i>Population</i>			
	<i>Tsuen Wan New Town</i>	<i>Sha Tin New Town</i>	<i>Tuen Mun New Town</i>	<i>Hong Kong Island, Kowloon and New Kowloon</i>
	%	%	%	%
<i>Male</i>				
Under 15	29.0	29.8	38.1	22.8
15-24	23.3	20.7	14.3	23.1
25-44	27.6	30.5	33.7	29.7
45-64	16.4	14.9	10.8	19.1
65 and over	3.7	4.1	3.1	5.3
Total	100.0	100.0	100.0	100.0
<i>Female</i>				
Under 15	29.7	29.1	38.0	23.0
15-24	23.3	21.5	15.2	23.0
25-44	25.9	27.8	31.8	26.4
45-64	15.0	14.7	9.9	19.1
65 and over	6.1	6.9	5.1	8.5
Total	100.0	100.0	100.0	100.0
<i>Total</i>				
Under 15	29.2	29.5	38.1	22.9
15-24	23.3	21.1	14.7	23.1
25-44	26.8	29.1	32.8	28.1
45-64	15.8	14.8	10.3	19.1
65 and over	4.9	5.5	4.1	6.8
Total	100.0	100.0	100.0	100.0

Table III 14 Distribution of population in conurbation and major new towns by broad type of living quarter; 1981

<i>Broad Type of Living Quarter</i>	<i>Population</i>							
	<i>Tsuen Wan New Town</i>		<i>Sha Tin New Town</i>		<i>Tuen Mun New Town</i>		<i>Hong Kong Island, Kowloon and New Kowloon</i>	
		%		%		%		%
Public and aided housing	411 251	68.7	53 536	48.9	64 586	71.8	1 370 433	37.7
Private housing	144 941	24.2	27 345	25.0	16 595	18.5	2 004 747	55.2
Housing Authority home ownership estates	1 268	0.2	13 664	12.5	—	—	15 841	0.4
Institutions	2 428	0.4	600	0.5	3 024	3.4	22 686	0.6
Temporary housing	39 123	6.5	14 326	13.1	5 696	6.3	220 101	6.1
Total	599 011	100.0	109 471	100.0	89 901	100.0	3 633 808	100.0

Table III 15 Percentage distribution of population aged 15 and over in conurbation and major new towns by educational attainment; 1981

<i>Educational Attainment</i>	<i>Population Aged 15 and Over</i>			
	<i>Tsuen Wan New Town</i>	<i>Sha Tin New Town</i>	<i>Tuen Mun New Town</i>	<i>Hong Kong Island, Kowloon and New Kowloon</i>
	%	%	%	%
No schooling/Kindergarten	16.1	14.9	16.6	14.8
Primary	38.4	35.3	45.5	32.9
Secondary/Matriculation	41.7	44.1	35.6	44.7
Post-secondary/University	3.8	5.7	2.3	7.6
Total	100.0	100.0	100.0	100.0

Table III 16 Age-sex-specific school attendance ratios of population in conurbation and major new towns by age group and sex; 1981

<i>Age Group</i>	<i>School Attendance Ratio of Population</i>			
	<i>Tsuen Wan New Town</i>	<i>Sha Tin New Town</i>	<i>Tuen Mun New Town</i>	<i>Hong Kong Island, Kowloon and New Kowloon</i>
	%	%	%	%
<i>Male</i>				
3- 5	83.6	86.4	83.4	85.9
6-11	99.2	98.9	99.5	98.8
12-14	94.4	94.7	89.4	92.9
15-16	72.0	76.4	54.1	75.1
17-18	41.8	49.0	32.1	47.3
<i>Female</i>				
3- 5	81.7	87.2	83.1	85.0
6-11	99.1	99.4	99.4	98.9
12-14	94.5	94.9	90.2	93.4
15-16	73.5	81.8	66.4	78.0
17-18	40.5	47.0	31.0	48.2

Table III 17 Age-sex-specific labour force participation rates of population in conurbation and major new towns by age group and sex; 1981

Age Group	<i>Labour Force Participation Rate of Population</i>			
	<i>Tsuen Wan New Town</i>	<i>Sha Tin New Town</i>	<i>Tuen Mun New Town</i>	<i>Hong Kong Island, Kowloon and New Kowloon</i>
	%	%	%	%
<i>Male</i>				
15-19	47.7	42.8	54.1	43.7
20-24	93.7	91.0	89.2	90.7
25-34	99.3	98.8	95.6	98.6
35-44	99.3	98.8	95.2	98.9
45-54	97.0	94.4	89.5	96.4
55 and over	60.7	57.4	52.8	61.0
Overall	83.9	82.8	84.2	82.7
<i>Female</i>				
15-19	47.2	40.2	50.7	40.2
20-24	82.4	75.4	61.0	81.0
25-34	54.6	48.1	33.4	59.3
35-44	58.6	47.6	53.7	52.7
45-54	52.5	42.3	51.0	45.5
55 and over	25.9	20.7	21.5	25.2
Overall	52.9	45.4	40.8	49.6

Table III 18 Percentage distribution of working population in conurbation and major new towns by occupation; 1981

Occupation	<i>Working Population</i>			
	<i>Tsuen Wan New Town</i>	<i>Sha Tin New Town</i>	<i>Tuen Mun New Town</i>	<i>Hong Kong Island, Kowloon and New Kowloon</i>
	%	%	%	%
Professional, technical and related workers	3.2	6.2	2.8	6.7
Administrative and managerial workers	1.0	2.6	0.4	3.2
Clerical and related workers	8.4	12.0	4.7	13.9
Sales workers	7.8	8.9	8.8	10.9
Service workers	12.7	17.3	17.1	16.2
Agricultural workers and fisherfolk	0.4	1.2	1.4	0.3
Production and related workers, transport equipment operators and labourers	66.2	51.3	64.0	48.1
Armed forces and unclassifiable	0.3	0.5	0.8	0.7
Total	100.0	100.0	100.0	100.0

Table III 19 Percentage distribution of working population in conurbation and major new towns by industry; 1981

<i>Industry</i>	<i>Working Population</i>			
	<i>Tsuen Wan New Town</i>	<i>Sha Tin New Town</i>	<i>Tuen Mun New Town</i>	<i>Hong Kong Island, Kowloon and New Kowloon</i>
	%	%	%	%
Agriculture and fishing	0.3	1.0	1.3	0.2
Mining and quarrying	*	0.1	*	0.1
Manufacturing	55.0	38.6	45.6	40.2
Electricity, gas and water	0.6	0.6	0.9	0.6
Construction	7.8	9.9	10.8	7.3
Wholesale and retail trade, restaurants and hotels	14.1	18.7	16.6	20.6
Transport, storage and communication	7.9	7.9	10.0	7.5
Financing, insurance, real estate and business services	2.3	3.4	1.3	5.7
Services	11.2	19.0	12.6	16.4
Unclassifiable	0.8	0.8	0.9	1.4
Total	100.0	100.0	100.0	100.0

* Less than 0.05%.

Table III 20 Percentage distribution of working population* in conurbation and major new towns by income from main employment; 1981

<i>Income from Main Employment (HK\$)</i>	<i>Working Population*</i>			
	<i>Tsuen Wan New Town</i>	<i>Sha Tin New Town</i>	<i>Tuen Mun New Town</i>	<i>Hong Kong Island, Kowloon and New Kowloon</i>
	%	%	%	%
Under 600	7.5	6.2	8.7	5.7
600– 999	13.1	10.2	12.5	11.8
1,000–1,499	34.0	28.1	26.6	30.4
1,500–1,999	19.7	18.7	18.3	18.9
2,000–2,999	17.9	23.0	26.2	18.3
3,000–4,999	6.6	11.0	6.7	9.8
5,000 and over	1.2	2.8	1.0	5.1
Total	100.0	100.0	100.0	100.0
<i>Median income (HK\$)</i>	1,429	1,648	1,560	1,556

* Excluding unpaid workers.

Table III 21 Percentage distribution of domestic households in conurbation and major new towns by household size; 1981

Household Size	Domestic Households			
	Tsuen Wan New Town	Sha Tin New Town	Tuen Mun New Town	Hong Kong Island, Kowloon and New Kowloon
	%	%	%	%
1	9.5	8.7	7.5	16.2
2	12.3	11.5	8.2	16.2
3	14.7	16.4	17.1	15.7
4	18.7	22.1	30.3	16.8
5	17.4	16.3	18.5	14.0
6	12.8	10.6	9.3	9.8
7	7.4	6.3	4.2	5.8
8	3.8	3.3	2.5	3.0
9	1.8	2.5	1.1	1.3
10 and over	1.6	2.3	1.3	1.2
Total	100.0	100.0	100.0	100.0
Average household size	4.3	4.3	4.2	3.8

Table III 22 Percentage distribution of domestic households in conurbation and major new towns by broad type of living quarter and whether sharing a living quarter with other household(s); 1981

Broad Type of Living Quarter	Domestic Households by Whether Sharing a Living Quarter							
	Tsuen Wan New Town		Sha Tin New Town		Tuen Mun New Town		Hong Kong Island, Kowloon and New Kowloon	
	Sharing	Not sharing	Sharing	Not sharing	Sharing	Not sharing	Sharing	Not sharing
	%	%	%	%	%	%	%	%
Public and aided housing	2.5	97.5	2.4	97.6	0.3	99.7	2.9	97.1
Private housing	48.7	51.3	12.4	87.6	26.8	73.2	42.5	57.5
Housing Authority home ownership estates	—	100.0	—	100.0	—	—	0.3	99.7
Institutions	—	100.0	—	100.0	—	100.0	2.7	97.3
Temporary housing	17.6	82.4	15.8	84.2	19.1	80.9	19.2	80.8

Table III 23 Median household rent* by broad type of living quarter in conurbation and major new towns; 1981

Broad Type of Living Quarter	Median Household Rent* (HK\$)			
	Tsuen Wan New Town	Sha Tin New Town	Tuen Mun New Town	Hong Kong Island, Kowloon and New Kowloon
Public and aided housing	174	279	220	136
Private housing and institutions	417	398	441	458
Temporary housing	82	79	78	84

* Excluding rent free households.

Table III 24 Percentage distribution of population by age group, sex and broad census area; 1981

Age Group	Population by Broad Census Area			
	Hong Kong Island, Kowloon and New Kowloon	New towns	Other areas in New Territories	Marine
	%	%	%	%
<i>Male</i>				
Under 15	22.8	29.8	28.2	35.7
15-24	23.1	22.2	24.4	24.1
25-44	29.7	28.4	23.3	23.3
45-64	19.1	15.7	17.7	13.9
65 and over	5.3	3.9	6.4	3.0
Total	100.0	100.0	100.0	100.0
<i>Female</i>				
Under 15	23.0	30.2	29.5	39.3
15-24	23.0	22.4	24.3	23.5
25-44	26.4	26.3	19.4	20.0
45-64	19.1	14.7	17.3	13.0
65 and over	8.5	6.4	9.5	4.2
Total	100.0	100.0	100.0	100.0
<i>Total</i>				
Under 15	22.9	30.0	28.9	37.4
15-24	23.1	22.3	24.3	23.8
25-44	28.1	27.4	21.4	21.8
45-64	19.1	15.2	17.5	13.5
65 and over	6.8	5.1	7.9	3.5
Total	100.0	100.0	100.0	100.0

Table III 25 Percentage of population ever-married by age group, sex and broad census area; 1981

Age Group	Percentage of Population Ever-married by Broad Census Area			
	Hong Kong Island, Kowloon and New Kowloon	New towns	Other areas in New Territories	Marine
	%	%	%	%
<i>Male</i>				
15-24	5.5	6.8	9.4	8.4
25-44	65.1	75.1	69.4	76.7
45-64	92.7	94.6	91.4	94.4
65 and over	96.6	96.6	95.2	96.3
<i>Female</i>				
15-24	15.1	18.2	21.0	21.2
25-44	82.4	90.9	89.6	93.8
45-64	96.2	98.3	98.5	99.2
65 and over	92.8	93.8	92.3	97.9
<i>Total</i>				
15-24	10.1	12.2	14.9	14.2
25-44	72.9	82.3	78.1	83.9
45-64	94.4	96.3	94.7	96.5
65 and over	94.3	94.9	93.5	97.2

Table III 26 Percentage distribution of ever-married women aged 15 to 49 by number of live births and broad census area; 1981

<i>Ever-married Women Aged 15 to 49 by Broad Census Area</i>				
<i>Number of Live Births</i>	<i>Hong Kong Island, Kowloon and New Kowloon</i>	<i>New towns</i>	<i>Other areas in New Territories</i>	<i>Marine</i>
	<i>%</i>	<i>%</i>	<i>%</i>	<i>%</i>
0	13.5	9.7	11.9	9.7
1	21.3	17.3	18.2	11.7
2	25.4	26.5	19.5	12.1
3	17.0	19.6	14.9	10.2
4	10.8	12.6	11.6	10.0
5	6.1	6.9	9.0	9.9
6 and over	5.9	7.4	14.9	36.4
Total	100.0	100.0	100.0	100.0
<i>Mean number of live births</i>	2.4	2.6	3.0	4.3

Table III 27 Percentage distribution of population aged 15 and over by educational attainment and broad census area; 1981

<i>Population Aged 15 and Over by Broad Census Area</i>				
<i>Educational Attainment</i>	<i>Hong Kong Island, Kowloon and New Kowloon</i>	<i>New towns</i>	<i>Other areas in New Territories</i>	<i>Marine</i>
	<i>%</i>	<i>%</i>	<i>%</i>	<i>%</i>
No schooling/Kindergarten	14.8	16.3	24.6	62.6
Primary	32.9	38.4	38.0	31.9
Secondary/Matriculation	44.7	41.3	33.1	5.5
Post-secondary/University	7.6	4.0	4.3	*
Total	100.0	100.0	100.0	100.0

* Less than 0.05%.

Table III 28 Age-sex-specific school attendance ratios by age group, sex and broad census area; 1981

<i>School Attendance Ratio by Broad Census Area</i>				
<i>Age Group</i>	<i>Hong Kong Island, Kowloon and New Kowloon</i>	<i>New towns</i>	<i>Other areas in New Territories</i>	<i>Marine</i>
	<i>%</i>	<i>%</i>	<i>%</i>	<i>%</i>
<i>Male</i>				
3-5	85.9	82.5	75.7	35.8
6-11	98.8	99.1	97.8	78.4
12-14	92.9	93.4	86.8	58.2
15-16	75.1	69.8	64.2	25.4
17-18	47.3	41.5	38.2	7.2
<i>Female</i>				
3-5	85.0	81.9	76.1	32.5
6-11	98.9	99.0	98.0	72.7
12-14	93.4	93.6	85.1	50.3
15-16	78.0	73.8	62.0	19.6
17-18	48.2	40.6	33.1	6.4

Table III 29 Labour force participation rates by age group, sex and broad census area; 1981

Age Group	<i>Labour Force Participation Rate by Broad Census Area</i>			
	<i>Hong Kong Island, Kowloon and New Kowloon</i>	<i>New towns</i>	<i>Other areas in New Territories</i>	<i>Marine</i>
	%	%	%	%
<i>Male</i>				
15-19	43.7	46.5	48.9	86.2
20-24	90.7	93.0	86.7	99.2
25-34	98.6	98.7	93.2	99.6
35-44	98.9	98.8	95.2	99.6
45-54	96.4	95.8	91.1	96.4
55 and over	61.0	58.6	56.1	75.7
Overall	82.7	83.2	76.7	93.3
<i>Female</i>				
15-19	40.2	45.9	49.8	86.0
20-24	81.0	78.0	69.5	87.1
25-34	59.3	49.3	46.3	73.5
35-44	52.7	56.0	51.4	71.4
45-54	45.5	50.5	49.6	67.8
55 and over	25.2	24.0	22.4	45.4
Overall	49.6	49.7	45.6	73.4

Table III 30 Distribution of domestic households and population in domestic households by broad type of living quarter and broad census area; 1981

<i>Broad Type of Living Quarter</i>	<i>Domestic Households by Broad Census Area</i>			<i>Population in Domestic Households by Broad Census Area</i>		
	<i>Hong Kong Island, Kowloon and New Kowloon</i>	<i>New towns</i>	<i>Other areas in New Territories</i>	<i>Hong Kong Island, Kowloon and New Kowloon</i>	<i>New towns</i>	<i>Other areas in New Territories</i>
	Public and aided housing	298 449	114 452	164	1 368 747	547 063
Private housing	569 340	73 677	57 409	1 975 487	269 205	242 599
Housing Authority home ownership estates	3 586	3 590	—	15 841	14 889	—
Institutions	1 148	567	598	3 269	1 441	2 067
Temporary housing	64 158	25 437	25 068	216 435	94 140	102 455
Total	936 681	217 723	83 239	3 579 779	926 738	347 813

Table III 31 Percentage distribution of domestic households by household size and broad census area; 1981

<i>Domestic Households by Broad Census Area</i>				
<i>Household Size</i>	<i>Hong Kong Island, Kowloon and New Kowloon</i>	<i>New towns</i>	<i>Other areas in New Territories</i>	<i>Marine</i>
	%	%	%	%
1	16.2	10.2	17.9	5.3
2	16.2	12.4	15.4	7.3
3	15.7	15.4	13.5	7.6
4	16.8	19.8	13.5	9.1
5	14.0	16.7	11.9	9.5
6	9.8	11.7	9.6	10.3
7	5.8	6.7	6.8	10.7
8	3.0	3.6	4.6	10.2
9	1.3	1.8	2.9	8.1
10 and over	1.2	1.7	3.9	21.9
Total	100.0	100.0	100.0	100.0
<i>Average household size</i>	3.8	4.3	4.2	6.9

Table III 32 Percentage distribution of domestic households by household income and broad census area; 1981

<i>Domestic Households by Broad Census Area</i>				
<i>Household Income (HK\$)</i>	<i>Hong Kong Island, Kowloon and New Kowloon</i>	<i>New towns</i>	<i>Other areas in New Territories</i>	<i>Marine</i>
	%	%	%	%
Under 600	5.1	4.2	12.5	7.1
600- 999	4.1	3.4	5.8	2.7
1,000-1,999	18.7	19.5	22.2	15.6
2,000-2,999	20.9	28.2	22.0	18.1
3,000-3,999	15.8	18.5	13.3	14.8
4,000-4,999	10.2	10.0	8.4	9.7
5,000-6,999	11.8	10.1	7.9	12.9
7,000-9,999	7.0	4.3	4.3	8.0
10,000 and over	6.4	1.8	3.6	11.1
Total	100.0	100.0	100.0	100.0
<i>Median household income (HK\$)</i>	3,062	2,781	2,351	3,340

Table III 33 Distribution of occupied living quarters by type of living quarter and broad census area; 1981

<i>Living Quarters by Broad Census Area</i>				
<i>Type of Living Quarter</i>	<i>Hong Kong Island, Kowloon and New Kowloon</i>	<i>New towns</i>	<i>Other areas in New Territories</i>	<i>Total</i>
Public and aided housing blocks				
Self-contained	201 868	99 136	145	301 149
Non self-contained	90 637	12 373	—	103 010
Private housing blocks	379 740	39 446	2 391	421 577
Housing Authority home ownership estates	3 767	3 589	—	7 356
Modern houses/Modern village houses	1 878	4 753	16 077	22 708
Simple stone structures	9 918	8 646	31 860	50 424
Institutions	8 710	2 034	2 554	13 298
Other permanent housing	25 883	4 856	4 342	35 081
Temporary housing	57 219	24 869	24 395	106 483
Total	779 620	199 702	81 764	1 061 086

Table III 34 Average number of domestic households per living quarter by type of living quarter and broad census area; 1981

<i>Average Number of Domestic Households per Living Quarter by Broad Census Area</i>				
<i>Type of Living Quarter</i>	<i>Hong Kong Island, Kowloon and New Kowloon</i>	<i>New towns</i>	<i>Other areas in New Territories</i>	
Public and aided housing blocks				
Self-contained	1.01	1.01	1.01	1.01
Non self-contained	1.03	1.03	—	—
Private housing blocks	1.42	1.34	1.08	1.08
Housing Authority home ownership estates	1.00	1.00	—	—
Modern houses/Modern village houses	1.10	1.27	1.07	1.07
Simple stone structures	1.32	1.22	1.08	1.08
Institutions	1.04	1.02	1.01	1.01
Other permanent housing	1.07	1.05	1.03	1.03
Temporary housing	1.12	1.12	1.07	1.07
Overall	1.23	1.11	1.07	1.07

Table III 35 Percentage of domestic households sharing a living quarter with other household(s) by type of living quarter and broad census area; 1981

<i>Percentage of Domestic Households Sharing a Living Quarter by Broad Census Area</i>				
<i>Type of Living Quarter</i>	<i>Hong Kong Island, Kowloon and New Kowloon</i>	<i>New towns</i>	<i>Other areas in New Territories</i>	
	<i>%</i>	<i>%</i>	<i>%</i>	
Public and aided housing blocks				
Self-contained	1.9	1.9	—	—
Non self-contained	5.2	5.1	—	—
Private housing blocks	44.0	39.0	9.6	9.6
Housing Authority home ownership estates	0.3	—	—	—
Modern houses/Modern village houses	18.2	37.0	12.2	12.2
Simple stone structures	35.8	30.1	11.8	11.8
Institutions	2.7	—	—	—
Other permanent housing	11.8	5.2	6.4	6.4
Temporary housing	19.2	15.5	10.0	10.0

Table III 36 Median household rent* by broad type of living quarter and broad census area; 1981

<i>Broad Type of Living Quarter</i>	<i>Median Household Rent* (HK\$) by Broad Census Area</i>		
	<i>Hong Kong Island, Kowloon and New Kowloon</i>	<i>New towns</i>	<i>Other areas in New Territories</i>
Public and aided housing	136	191	250
Private housing and institutions	458	429	253
Temporary housing	84	76	75

* Excluding rent free households.

Table III 37 Percentage distribution of migrant and local population by age group and sex; 1981

<i>Age Group</i>	<i>Legal immigrants</i>	<i>Illegal immigrants</i>	<i>Local population</i>
	%	%	%
<i>Male</i>			
Under 15	15.0	2.4	13.0
15-34	19.1	69.9	20.6
35-54	12.7	3.4	11.2
55 and over	2.4	0.3	7.0
Sub-total	49.2	76.0	51.8
<i>Female</i>			
Under 15	12.6	1.5	12.2
15-34	18.0	21.0	19.0
35-54	13.3	1.2	9.0
55 and over	6.9	0.3	8.0
Sub-total	50.8	24.0	48.2
<i>Total</i>			
Under 15	27.6	3.9	25.2
15-34	37.1	90.9	39.6
35-54	26.0	4.6	20.2
55 and over	9.3	0.6	15.0
Total	100.0	100.0	100.0

Note: Figures for legal and illegal immigrants were obtained from Immigration Department records, and refer to the age at the time of their arrivals. Between mid-1976 and mid-1981 there were altogether 246 000 legal immigrants and 211 000 illegal immigrants from China. Those for local population refer to the 1981 Census.

Table III 38 Percentage distribution of migrant and local population by broad census area; 1981

<i>Broad Census Area</i>	<i>Migrant population</i>	<i>Local population</i>
	%	%
Hong Kong Island	21.0	23.9
Kowloon	20.1	15.8
New Kowloon	33.2	33.1
New Territories	25.5	26.2
New towns	18.4	18.9
Other areas	7.1	7.3
Marine	0.2	1.0
Total	100.0	100.0

Table III 39 Percentage distribution of land-based migrant and local population by type of living quarter; 1981

Type of Living Quarter	Land-based Migrant Population by Year of Arrival						Local
	1976	1977	1978	1979	1980*	Total	Population
	%	%	%	%	%	%	%
Public and aided housing blocks							
Self-contained	8.2	6.7	3.7	3.3	4.7	4.2	31.6
Non self-contained	2.6	2.6	1.6	2.1	2.3	2.1	9.3
Private housing blocks	55.1	59.2	60.0	57.7	62.4	59.5	40.6
Housing Authority home ownership estates	0.3	0.2	0.1	0.1	0.1	0.1	0.7
Modern houses/Modern village houses	1.9	1.7	2.2	1.9	1.7	1.9	2.3
Simple stone structures	5.0	4.5	5.3	6.4	5.4	5.7	4.8
Institutions and other permanent housing	1.8	1.5	1.5	1.5	2.4	1.8	3.2
Temporary housing	25.1	23.6	25.6	27.0	21.0	24.7	7.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* Including those arrived in January–March 1981.

Table III 40 Percentage distribution of migrant and local population aged 15 and over by age group, sex and educational attainment; 1981

Age Group	Sex	Population by Level of Education				Total
		No schooling/ Kindergarten	Primary	Secondary/ Matriculation	Post- secondary/ University	
		%	%	%	%	
Migrant Population						
15–24	M	2.7	31.1	65.7	0.5	100.0
	F	5.7	33.8	59.8	0.7	100.0
25–34	M	4.0	39.7	53.5	2.8	100.0
	F	8.3	36.0	51.8	3.9	100.0
35–44	M	3.7	23.7	48.2	24.4	100.0
	F	12.0	27.5	41.5	19.0	100.0
45–54	M	8.8	29.0	31.0	31.2	100.0
	F	39.4	29.7	18.5	12.4	100.0
55–64	M	15.0	42.1	29.0	13.9	100.0
	F	58.4	26.7	11.8	3.1	100.0
65 and over	M	25.1	48.2	18.1	8.6	100.0
	F	77.7	16.2	4.7	1.4	100.0
Local Population						
15–24	M	1.0	18.2	74.2	6.6	100.0
	F	1.7	23.1	69.7	5.5	100.0
25–34	M	2.5	33.2	52.7	11.6	100.0
	F	5.7	41.0	45.4	7.9	100.0
35–44	M	6.6	41.7	40.3	11.4	100.0
	F	19.7	44.0	28.7	7.6	100.0
45–54	M	14.5	55.2	23.8	6.5	100.0
	F	47.2	38.2	11.9	2.7	100.0
55–64	M	18.4	56.3	19.8	5.5	100.0
	F	60.7	28.7	8.7	1.9	100.0
65 and over	M	26.4	51.2	17.1	5.3	100.0
	F	78.6	16.4	3.9	1.1	100.0

Table III 41 Percentage of migrant and local population aged 6–18 who are studying full-time in school or educational institution by age group; 1981

Age Group	School Attendance Ratio of Migrant Population by Year of Arrival					Total	School Attendance Ratio of Local Population
	1976	1977	1978	1979	1980*		
	%	%	%	%	%		
6–11	99.1	99.2	98.3	97.4	92.1	96.7	98.6
12–14	90.4	85.9	79.7	74.8	62.4	75.3	92.9
15–16	62.2	50.7	39.3	21.6	15.8	28.0	76.0
17–18	29.8	16.3	9.5	5.2	2.1	6.1	48.2
Overall (6–18)	81.0	77.8	68.9	55.7	45.9	59.4	83.7

* Including those arrived in January–March 1981.

Table III 42 Percentage distribution of migrant and local population aged 15 and over by activity status and age group; 1981

Activity Status	Migrant Population by Age Group					Local Population by Age Group				
	15–19	20–39	40–59	60 and over	Total (15 and over)	15–19	20–39	40–59	60 and over	Total (15 and over)
	%	%	%	%	%	%	%	%	%	%
<i>Economically Active Population</i>										
Self-employed	0.5	1.9	2.9	1.6	1.8	0.2	2.8	7.9	4.7	4.1
Employers	0.1	0.4	1.4	0.6	0.5	*	2.2	4.7	2.1	2.5
Employees	83.1	83.8	72.9	25.0	79.6	36.5	72.0	54.9	24.2	55.4
Unpaid workers	0.7	0.5	0.7	0.7	0.5	1.2	1.0	1.2	0.6	1.0
Unemployed and job-seekers	2.2	3.0	3.8	0.9	2.9	2.9	2.7	3.2	1.2	2.6
<i>Economically Inactive Population</i>										
Home-makers	0.9	9.3	15.9	39.0	10.3	1.1	15.7	24.3	29.7	17.8
Full-time students	9.8	0.2	—	—	1.7	52.7	2.2	*	—	8.8
Retired persons	—	—	1.2	26.5	1.3	—	—	2.8	32.3	5.3
Others	2.7	0.9	1.2	5.7	1.4	5.4	1.4	1.0	5.2	2.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* Less than 0.05%.

Table III 43 Labour force participation rates of migrant and local population by age group and sex; 1981

Age Group	Labour Force Participation Rate of Migrant Population by Year of Arrival					Total	Labour Force Participation Rate of Local Population
	1976	1977	1978	1979	1980*		
	%	%	%	%	%	%	%
<i>Male</i>							
15-19	54.9	67.5	81.4	91.2	93.7	88.1	41.4
20-24	96.7	97.2	98.4	99.0	98.3	98.5	89.6
25-34	97.5	98.8	99.4	99.4	98.7	99.2	98.2
35-44	100.0	99.3	99.7	99.2	97.5	98.9	98.6
45-54	91.6	98.9	97.1	96.3	96.2	96.5	96.0
55 and over	64.6	53.5	60.4	65.8	55.5	60.3	60.3
<i>Female</i>							
15-19	64.6	66.0	75.2	88.5	90.7	84.4	40.1
20-24	71.6	76.5	81.6	83.3	86.3	83.4	79.4
25-34	61.5	65.0	62.0	64.2	68.1	64.8	56.3
35-44	68.8	68.9	72.2	76.0	71.5	72.7	51.7
45-54	66.3	66.9	66.7	64.8	59.9	64.1	46.1
55 and over	38.0	31.3	34.4	32.3	24.2	30.5	24.7

* Including those arrived in January-March 1981.

Table III 44 Percentage distribution of migrant and local working population by occupation; 1981

Occupation	Migrant Working Population by Year of Arrival					Total	Local Working Population
	1976	1977	1978	1979	1980*		
	%	%	%	%	%	%	%
Professional, technical and related workers	6.2	3.8	2.3	2.0	2.0	2.3	6.3
Administrative and managerial workers	1.4	1.4	0.7	0.3	0.5	0.6	2.9
Clerical and related workers	5.0	4.9	3.2	2.7	3.3	3.2	13.0
Sales workers	5.8	7.3	5.3	5.4	5.3	5.5	10.7
Service workers	12.4	12.1	11.4	12.6	15.7	13.2	15.8
Agricultural workers and fisherfolk	1.4	0.4	0.7	0.7	1.0	0.8	2.2
Production and related workers, transport equipment operators and labourers	67.1	69.6	75.9	75.8	71.7	73.9	48.4
Armed forces and unclassifiable	0.7	0.5	0.5	0.5	0.5	0.5	0.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

* Including those arrived in January-March 1981.

Table III 45 Percentage distribution of migrant and local working population by industry; 1981

<i>Industry</i>	<i>Migrant working population</i>	<i>Local working population</i>
	%	%
Agriculture and fishing	0.7	2.0
Mining and quarrying	0.1	0.1
Manufacturing	57.0	39.8
Electricity, gas and water	0.3	0.6
Construction	16.7	6.9
Wholesale and retail trade, restaurants and hotels	15.8	19.5
Transport, storage and communication	2.8	8.0
Financing, insurance, real estate and business services	0.9	5.2
Services	4.7	16.6
Unclassifiable	1.0	1.3
Total	100.0	100.0

Table III 46 Percentage distribution of migrant and local population who are employees* by hours of work per week; 1981

<i>Hours of Work</i>	<i>Migrant employees*</i>	<i>Local employees*</i>
	%	%
15-24	1.9	2.8
25-34	1.8	3.1
35-44	13.5	24.1
45-54	48.4	42.7
55-64	20.6	16.2
65-74	7.7	6.4
75 and over	6.1	4.7
Total	100.0	100.0

* Excluding outworkers, student workers and persons on leave or industrial dispute.

Table III 47 Percentage distribution of migrant and local working population# by income from main employment; 1981

<i>Income from Main Employment (HK\$)</i>	<i>Migrant Working Population# by Year of Arrival</i>					<i>Total</i>	<i>Local Working Population#</i>
	1976	1977	1978	1979	1980*		
	%	%	%	%	%	%	%
Under 600	5.1	6.0	4.6	4.7	6.4	5.3	6.5
600- 999	14.9	15.3	15.3	17.8	24.0	18.7	11.7
1,000-1,499	38.3	40.1	43.8	45.8	47.2	45.0	29.4
1,500-1,999	20.7	20.5	21.4	20.0	14.6	18.9	18.8
2,000-2,999	15.3	13.3	11.9	9.8	6.3	9.7	19.0
3,000-4,999	4.2	3.9	2.5	1.6	1.1	1.9	9.9
5,000 and over	1.5	0.9	0.5	0.3	0.4	0.5	4.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<i>Median income (HK\$)</i>	1,369	1,344	1,330	1,270	1,162	1,256	1,563

Excluding unpaid workers.

* Including those arrived in January-March 1981.

Table III 48 Unemployment rates of migrant and local population by age group and sex; 1981

<i>Age Group</i>	<i>Unemployment Rate of Migrant Population by Year of Arrival</i>					<i>Unemployment Rate of Local Population</i>	
	<i>1976</i>	<i>1977</i>	<i>1978</i>	<i>1979</i>	<i>1980*</i>	<i>Total</i>	
	<i>%</i>	<i>%</i>	<i>%</i>	<i>%</i>	<i>%</i>	<i>%</i>	<i>%</i>
<i>Male</i>							
15-19	—	3.2	3.4	2.4	3.3	2.9	8.3
20-29	3.5	4.2	3.6	3.2	3.5	3.4	3.7
30-39	0.6	3.5	2.9	3.2	4.1	3.3	2.7
40-49	6.4	4.7	3.4	4.3	5.7	4.6	3.7
50-59	12.6	3.7	6.2	6.9	5.4	6.3	6.0
60-64	14.6	6.7	7.8	10.0	12.6	10.2	6.8
Overall (15-64)	3.6	4.1	3.5	3.3	3.9	3.6	4.3
<i>Female</i>							
15-19	—	1.3	1.6	1.5	3.2	2.0	5.9
20-29	4.4	5.8	2.9	2.2	4.2	3.2	3.6
30-39	5.1	2.0	1.9	2.1	5.5	3.0	2.7
40-49	0.9	2.2	2.4	4.4	6.2	3.9	3.0
50-59	7.4	5.6	4.4	2.5	7.1	4.7	4.9
60-64	4.3	—	—	5.1	2.7	2.6	6.1
Overall (15-64)	3.3	3.2	2.4	2.3	4.6	3.1	3.9

* Including those arrived in January-March 1981.

PART F

DEFINITION OF TERMS

Definition of Terms

Activity status—The relationship between a person and the organisation in which he works and his relation to others within the organisation. A person may be broadly classified as economically active or economically inactive as follows:

(A) Economically Active Population (Labour Force)—Persons aged 15 and over who were engaged in productive work for at least 15 hours during the seven days before enumeration; or who were employers, the self-employed, farmers and fisherfolk, or who were on leave or industrial dispute during the reference period; and persons aged 15 to 64 who would have been engaged in productive work but were unemployed during the reference period.

Working persons—Economically active population less the unemployed.

Self-employed—A person who works on his own account, neither employed by someone nor employing anyone for salary or wages.

Employer—A working partner, director or proprietor of a concern employing at least one other person.

Employee—A person who works for salary or wages (including paid family worker). 'Outworkers', 'student workers' and 'persons on leave or industrial dispute' are also included unless otherwise stated.

Outworker—An employee who is free to take his work home or anywhere he likes.

Unpaid family worker—A person who lives with a family and does work (not domestic work) as part of the family enterprise in return for food and lodging.

Other unpaid worker—Voluntary worker of social/religious bodies, etc.

On leave or industrial dispute—Persons who were on paid leave, unpaid leave, or industrial dispute during the seven days before enumeration.

Student worker—A full-time student who worked for 15 hours or more during the seven days before enumeration.

Unemployed persons—Persons between 15 and 64 years of age who during the seven days before enumeration worked less than 15 hours but were seeking work (the hour criterion did not apply to employer, the self-employed, farmers and fisherfolk). This excludes those on leave or industrial dispute during the reference period, but includes those who were waiting to take up a job, or just commencing work; or those who were not seeking work because they believed work was not available, or because of temporary sickness or injury; or those who were temporarily or indefinitely laid off work without pay. (Special rules applied to farmers and fisherfolk. Farmers were classified as unemployed only if they had no land to farm and were not employed by someone to take part in farming operations during the reference period. Similarly, fisherfolk were classified as unemployed only if they had no fishing tackle to fish with and were not employed by someone to engage in fishing operations during the reference period.)

(B) Economically Inactive Population—Persons who were not engaged in productive work for at least 15 hours during the seven days before enumeration, (excluding employers, the self-employed, farmers and fisherfolk, persons on leave or industrial dispute during the reference period, and persons who were currently unemployed and who were not seeking work.)

Home-maker—A person who looks after the home.

Full-time student—Persons who are studying full-time in schools/educational institutions (excluding student workers who are classified as economically active persons).

Of independent means—Persons who live by renting or subletting a house or flat (or part of a flat) to others, or on capital accumulated in previous years, income from investments or on remittances from overseas.

Retired person—A person who has previously worked but is not currently working because of old age or other reasons.

Others—This includes persons who are none of the above and are undertaking self-study, informal courses in miscellaneous training institutes, or evening courses, persons in penal, medical, mental and charitable institutions; and persons who are sick or disabled.

Administrative district—The delineation of the whole territory of Hong Kong according to the geographical system for the purpose of the District Administration Scheme.

Age—The number of complete years a person has passed since birth.

Age-sex-specific death rates—The ratio of the number of deaths in a specific age and sex group occurring during a calendar year to the total mid-year population in that group.

Age-sex-specific headship rates—The proportion which the number of household heads in a specific age and sex group bears to the total number of persons in that group.

Age-sex-specific labour force participation rate—The proportion which the total number of economically active persons in a specific age and sex group bears to the total number of persons in that group.

Age-sex-specific school attendance ratio—The proportion which the number of persons in a specific age and sex group who were studying full-time at a school, a post-secondary college, the Polytechnic, a Technical Institute, College of Education, the Technical Teachers' College, School of Nursing, or at a university bears to the total number of persons in that group.

Age-specific fertility rates—The ratio of the number of live births occurring to females at a specific age, or in a specific age group, to the total mid-year population of females of that age or in that age group.

Age-specific headship rates—The proportion which the number of household heads in a specific age group bears to the total number of persons in that group.

Area of destination (of internal movement)—Census area/district in which the person was enumerated in the census.

Area of origin (of internal movement)—Census area/district in which the person lived 5 years ago.

Average annual growth rate of population—The ratio of total population growth in a given period to the population at the beginning of the period. The average annual growth rate is calculated as follows:

$$\frac{P_2}{P_1} = (1+r)^n$$

where P_1 = number of people in the population at the initial date.

P_2 = number of people in the population at the later date.

r = average annual growth rate.

n = exact number of years between P_1 and P_2 .

(Average annual growth rates of the labour force, number of households, etc. are similarly defined.)

Average class size—The ratio of the total number of pupils to the total number of classes.

Average degree of sharing (The average number of domestic households in a living quarter)—This is calculated by dividing the total number of domestic households by the total number of living quarters occupied by at least one domestic household.

Average household size—The average number of persons per household. This is calculated by dividing the total number of persons who were found to be in the domestic households on the census reference date by the total number of domestic households.

Average number of working members in household—The total number of working persons in all domestic households divided by the total number of domestic households.

Birth rate—See 'Crude birth rate'.

Birth order—The number of births to a mother.

Broad census area—The broad delineation of the territory of Hong Kong into Hong Kong Island, Kowloon, New Kowloon, New Territories which is further divided into New Towns (consisting of Tsuen Wan New Town, Tuen Mun New Town, Yuen Long New Town, Sheung Shui/Fanling New Town, Tai Po New Town and the Sha Tin New Town) and Other Areas in New Territories, and 'Marine'—which includes the waters adjoining the land of Hong Kong up to the international boundary. See the map in Part G.

Broad type of living quarter (Type of housing)—The broad division of building in which a household's living quarter is located.

Public and aided housing—Housing Authority rental blocks and Housing Society rental blocks.

Private housing—Private housing blocks (including Housing Society Urban Improvement Scheme estates), modern houses/modern village houses, simple stone structures, staff quarter buildings, and quarters in hotels, hostels, commercial, industrial and other non-domestic buildings.

Institutions—Hospitals, old people's homes, religious houses, maternity homes, used monasteries and prisons, etc.

Temporary housing—Housing Authority cottages and temporary huts, roof-top structures, nissen huts, contractor's matsheds, derelict boats, huts and shacks built of non-permanent materials; and also places not intended for domestic purposes but were occupied during the reference period such as landings, staircases, corridors and street-sides.

Cause-specific death rate—The ratio of the number of deaths due to a specific group of diseases occurring during a calendar year to the total mid-year population.

Census area/district—Hong Kong is commonly divided into four main areas, viz. Hong Kong Island, Kowloon, New Kowloon and the New Territories. For the 1981 Census, the New Territories is further divided into Tsuen Wan, Yuen Long and Tuen Mun, Tai Po and Fanling, Sha Tin, Sai Kung, and Islands. (In some tables, the New Territories is divided into Tsuen Wan New Town, Tuen Mun New Town, Yuen Long New Town, Sheung Shui/Fanling New Town, Tai Po New Town, Sha Tin New Town and Other Areas in New Territories). 'Marine' is a separate census area; it includes the waters adjoining the areas of Hong Kong Island, Kowloon, New Kowloon and the New Territories up to the international boundary. See the map in Part G.

Cohort (Birth cohort)—A group of persons all born during the same year being analysed as a unit through their lifetimes.

Collective household—Any group of unrelated persons who occupied the same living accommodation and shared some form of communal catering; for example old people's homes, staff quarters in factories and workshops, etc.

Conurbation (Main urban areas)—The area consisting of Hong Kong Island, Kowloon and New Kowloon. See the map in Part G.

Crude birth rate (Birth rate)—The ratio of the total number of live births occurring during a calendar year to the total mid-year population.

Crude death rate—The ratio of the total number of deaths occurring during a calendar year to the total mid-year population.

Crude labour force participation rate—The proportion of the total number of economically active persons bears to the total population aged 15 and over.

De jure population count—The total number of usual residents of Hong Kong on the census reference date. This includes resident population enumerated and residents who were temporarily away from Hong Kong, but excludes transients and Vietnamese refugees.

De facto population count—The total number of all persons present in Hong Kong on the census reference date. This includes resident population enumerated, transients, and Vietnamese refugees, but excludes residents who were temporarily away from Hong Kong.

Deciles (of households in respect of household income)—The tenths of domestic households formed by dividing all households into ten equal parts according to the relative rank of their household incomes. For example, the 10% households with the lowest incomes are grouped in the first decile, the 10% households with the next lowest incomes in the second decile, and so on up to the 10% households with the highest incomes in the 10th (or top) decile.

Dependency ratio—The ratio of the number of persons under 15 and those aged 65 and over to the total number of persons in the 15-64 age group.

Domestic household—Comprises related family members and unrelated persons, if any, such as friends, servants and hired hands, or unrelated persons only, who live together in the same living quarter and share the food or expenditure of the household, or any person who lives alone and who is responsible for producing his own meals and no one else's meals.

Economically active population—See 'Activity status'.

Economically inactive population—See 'Activity status'.

Educational attainment (Level of education)—The highest level of education attained by a person in primary, secondary, and matriculation classes, or in a post-secondary college, the Polytechnic, a Technical Institute, College of Education, the Technical Teachers' College, School of Nursing, or at a university. A course is recorded only if:

- (i) it lasts at least one year;
- (ii) it includes an examination for assessment purposes; and
- (iii) it requires specific academic entrance qualifications.

Primary—Primary 1-6 in the Hong Kong school system, including private tuition.

Lower secondary—Middle 1-3 in Chinese schools or Form 1-3 in English or Anglo-Chinese schools.

Upper secondary—Middle 4-5 in Chinese schools or Form 4-5 in English or Anglo-Chinese schools, and craft/apprenticeship courses in Technical Institutes.

Matriculation—Middle 6 in Chinese schools or Form 6-7 in English or Anglo-Chinese schools, and year 1-2 in Baptist College and Lingnan College.

Post-secondary—Post-secondary colleges (excluding Universities, the Polytechnic and Technical Institutes), Colleges of Education, the Technical Teachers' College and School of Nursing. Includes 'Polytechnic/Technical Institute' where this does not appear separately.

Polytechnic/Technical Institute—Diploma/Certificate courses, Endorsement Certificate courses and Associate-ship or equivalent courses in Polytechnic/Technical Institutes. Craft courses in Technical Institutes are classified as 'upper secondary' except where only persons with technical education are considered.

University—Degree courses and post-graduate courses in Universities.

Employee—A person who works for salary or wages (including paid family worker). 'Outworkers', 'student workers' and 'persons on leave or industrial dispute' are also included unless otherwise stated.

Ever-married population—Persons who were either currently married, widowed, or divorced/separated.

Expectation of life at birth—The average lifetime of a hypothetical cohort of births all assumed to be born in a given year, and thereafter subjected to the same mortality rates prevailing in that year.

Fertility—An actual level of reproductive performance in a population, based on the number of live births that occur. It must be distinguished from fecundity, the potential level of performance (or physical capacity for bearing children) of the population.

Field of education—Field of education refers to the subject of the course to which the person's highest level of education is related. If a person had completed courses in more than one field of education, only the field which he considered the most important for his career was recorded.

General—Includes general education courses offered in kindergartens and schools at the primary, secondary or matriculation level.

Arts and social science—Includes studies in music; drawing and painting; sculpturing; drama; handicrafts; literature; linguistics; history; philosophy; theology; archaeology; anthropology; economics; sociology; criminology; pure psychology; demography; geography and political science.

Pure science—Includes studies in mathematics; biology; chemistry; geology; physics; astronomy; meteorology; oceanography; statistics; actuarial science.

Education—Includes studies in colleges of education; technical teacher training courses; diploma/certificate of education courses and university degree courses in education.

Business, commercial and computer studies—Includes studies in accountancy; secretaryship; shorthand, typing, book-keeping; banking; marketing; finance and investment; valuation; purchase and supply; insurance; public and business administration; computer programming and system analysis; electronic data processing; business machine and computer operation.

Medical and health related studies—Includes studies in medicine (except Chinese herbal medicines); nursing; dentistry; psychiatry; radiology; pharmacy, dental and medical technology; physical and occupational therapy; medical sciences including anatomy; physiology and forensic sciences.

Architecture and construction engineering—Includes studies in architecture; town planning; building technology such as surveying, carpentry, bricklaying, plastering and tiling, plumbing and pipe fitting, sewerage; water supply and treatment; civil and structural engineering; soil mechanics; draughtsmanship; interior design; land, building and estate management.

Mechanical, electrical, electronic and marine engineering—Includes studies in mechanical engineering, mining engineering, motor mechanics; vehicle technology; ship building and repairs, naval architecture; production engineering, plastic mould technology, tool and die technology, industrial engineering, electrical and electronic engineering; refrigeration and air-conditioning; TV/radio mechanics and servicing; telecommunications; marine electronics.

Textile, design and other industrial technology—Includes studies in textile technology/clothing technology such as dyeing, fabric, printing, garment, and leather manufacturing; printing technology; industrial design; basic, graphic and 3-dimensional design; chemical engineering; environmental engineering; watch and clock making, optics.

Transport and other vocational studies—Includes studies in seamanship, nautical and maritime science; transport management and engineering; railway operation; vehicle operation; aviation; agricultural programmes; clinical psychology; librarianship; social work; law; journalism and mass communication; public relations studies, hotel management; laboratory technicianship and other service trades.

Full-time student—See 'Studying full-time in schools or educational institutions'.

General fertility rate (GFR)—The ratio of the total number of live births occurring during a calendar year to the total mid-year population of females in the age group 15-49.

Gini coefficient—A figure showing the degree of inequality of distribution in mathematical terms by expressing the area between the Lorenz curve and the diagonal as a proportion of the total area under the diagonal. The value of a Gini coefficient lies between 0 and 1, with 0 indicating complete equality and 1 complete inequality.

Gross reproduction rate (GRR)—The average number of daughters that would be born to a woman during her lifetime if she passed through her childbearing years (i.e. from 15 to 49) conforming to the age-specific fertility rates of a given year.

Head of household (Headship)—The person acknowledged by other members of the household to be responsible for making major decision of the household.

Hours of work—The total number of hours a person actually worked (for all employment) excluding meal breaks during the seven days before enumeration. (The question on 'hours of work' was not applicable to employers, the self-employed, farmers and fisherfolk, and persons on leave or industrial dispute during the reference period.)

Household composition—Household composition is derived from the 'relationship to head of household' of each household member enumerated in a domestic household. It shows the structure of a household in terms of (a) the number of family nuclei and (b) the relationship between the family nucleus and other related household members.

Family nucleus—This consists of one of the following combinations:

- (a) a married couple without children
- (b) a married couple with one or more never married children, or
- (c) one parent (either father or mother) with one or more never married children.

One unextended nuclear family (One family)—A family nucleus without other related household members.

One vertically-extended nuclear family—A family nucleus with other related household members not of the same generation.

One horizontally-extended nuclear family—A family nucleus with other related household members of the same generation.

Two or more nuclear families (Two or more families)—Two or more unrelated nuclear families, or related family nuclei belonging to the same or different generation.

Non-family-nuclear household—Related household members forming no family nucleus and/or unrelated persons.

Household income—Sum of incomes (i.e. cash earnings from employment and other cash incomes) of persons aged 12 and over who were found to be in the household on the census reference date. The income figures refer to January 1981 for the marine census, and to February 1981 for the land census.

Household rent—The amount paid periodically for the accommodation occupied by a household, after the deduction of any housing allowance received. Where water, electricity, communal cleaning and estate management services are charged in addition, such payments are not included as part of rent; but any payment for rates is included. The household rent must be zero for owner-occupiers and households occupying the accommodation rent free. The rent figures refer to February 1981.

Household size—The number of persons who were found to be in the household on the census reference date.

Income from main employment—For employers or the self-employed, this is the amount earned excluding expenses incurred in running the business, e.g. costs in purchasing materials and supplies, labour costs, rents and rates for buildings or machines, reinvestment or business loans. For employees, this includes salary or wages, bonus, commission, overtime, tips and other cash allowances except housing allowance and New Year bonus/double pay. For the marine census, the amount recorded refers to January 1981, and for the land census to February 1981.

Industry—The kinds of goods or services produced by the establishment in which a person worked, for the self-employed by the person himself, during the reference period. The classification used follows the major divisions of the International Standard Industrial Classification. Unemployed persons (if previously worked) were classified by reference to their last industry.

Agriculture and fishing—Includes growing of rice, vegetables, flowers and fruits; keeping of pigs and poultry; beam trawling, single-boat stern trawling, long lining, hand lining, purse seining, gill netting, oyster and pond fish culture.

Mining and quarrying—Includes metal ore mining and processing, stone quarrying.

Manufacturing (textile and wearing apparel)—Includes spinning of cotton and yarn, weaving and knitting of cotton and other fabrics; bleaching, dyeing and finishing; manufacture of wearing apparel, knitwear and other made-up textile goods; manufacture of carpets, cordages, ropes and twines.

Manufacturing (others)—Includes manufacture of food, beverage, tobacco, footwear, leather products, rubber products, plastic products, wood products, printed matters and paper products, metal products and machinery, chemicals and chemical products, glass and pottery.

Electricity, gas and water—Includes electric light and power, town gas and water supply.

Construction—Includes building construction, civil engineering, plumbing, electrical wiring, air-conditioning installation and repair.

Wholesale and retail trade, restaurants and hotels—Includes wholesale and retail trade, import and export trade, hawkers and peddlers, Chinese general brokers and other commercial agents, restaurants and cafés, hotels and rooming houses.

Transport, storage and communication—Includes land transport, water transport, air transport, services allied to transport, storage and warehousing, posts and telecommunications.

Financing, insurance, real estate and business services—Includes finance, insurance, real estate; offices of lawyers, accountants, auditors, architects, surveyors, advertising agents, data processing services; chambers of commerce and trade unions.

Services—Includes government services and armed forces, education services, medical, dental and other health services, sanitary services, welfare institutions, religious organisations, cinemas and theatres, radio and television broadcasting, libraries and museums, electrical repair shops and automobile repair garages, and other household and personal services.

Unclassifiable—Includes persons in industries inadequately described or unclassifiable.

Infant mortality—The ratio of the number of deaths below age one occurring during a calendar year to the total number of live births in that year.

In-movement of population—The number of persons aged 5 and over in domestic households living in a census district at the 1981 Census who were living in a different census district within Hong Kong 5 years ago.

In-movement rates—The ratio of in-movement into a census district to the average of the population aged 5 and over enumerated in the district in the 1981 Census and the corresponding population that would have been there had no internal movement occurred during the past 5 years. The in-movement rate is calculated as follows:

$$m = \frac{M}{(P - I) - \frac{1}{2}(M - O)}$$

where m = the in-movement rate

M = the number of in-movements

O = the number of out-movements

I = the number of movers from abroad since 5 years ago

P = the population in the district aged 5 and over as enumerated in the census

Labour force—See 'Activity status'.

Labour force participation rate—See 'Crude labour force participation rate' and 'Age-sex-specific labour force participation rate'.

Level of education—See 'Educational attainment'.

Living quarter—A quarter occupied exclusively by one household or shared by a limited number of households for living purposes. It should be internally connected so that the occupants can move between the rooms/cubicles without going outside onto a public corridor, landing or staircase and have direct external access to a street, a public corridor, landing or staircase without going through another household's accommodation.

Occupied living quarters—Living quarters where occupants were present on the census reference date (all tables on living quarters in this report except Table II 78 refer to occupied living quarters).

Stock of living quarters—Includes living quarters where occupants were present and those where occupants were absent on the reference night, as well as vacant quarters built for residential purposes.

Local population (for study of migrant characteristics)—Total population less migrant population.

Lorenz curve (of household income distribution)—A mathematical curve showing the cumulative percentage of household income against that of the cumulative percentage of all domestic households.

Main urban areas—See 'Conurbation'.

Major new towns—The three new towns which had the largest population in the 1981 Census, viz. Tsuen Wan New Town, Tuen Mun New Town and Sha Tin New Town. See the map in Part G.

Marital status—The status of a person in relation to marriage. (Note: For the census purpose, 'marriage' was recorded solely if so reported by respondents regardless of whether any kind of ceremony had taken place or whether or not the 'marriage' had been registered. Persons aged under 15 were classified in accordance with international recommendation as 'never married (single)' regardless of the status claimed.)

Mean age—The average age obtained by dividing the sum of all persons' ages by the total number of persons.

Median—The value which divides a set of figures into two halves, one half having values below the median and the other half having values above it. For example, if there are 101 figures ranked in increasing order, the median is the 51st figure in the sequence. If there are 100 ranked figures, the median is the average value of the 50th and 51st figures.

Median age—The average age so calculated that 50% of the total number of persons were above this age while the other 50% were below it.

Median household income—The average household income so calculated that 50% of the total number of domestic households had incomes above this figure while the other 50% had incomes below it.

Median household rent—The average amount of rent so calculated that 50% of the total number of domestic households paid more than this amount while the other 50% paid less.

Median income from main employment—The average income from main employment so calculated that 50% of the total working population excluding unpaid workers had incomes above this figure while the other 50% had incomes below it.

Migrant population (for study of migrant characteristics)—Persons who lived in China five years ago and who were enumerated in the 1981 Census (excluding persons who had intended to stay in Hong Kong for less than 6 months).

Mode—The most frequent value in a set of figures. In grouped data the mode is the group which has the highest count.

Mortality—See 'Death rate'.

Moved household—A domestic household whose head was living in a census district 5 years ago that was different from the one in which he was enumerated, or who had immigrated/returned from outside Hong Kong during the past 5 years.

Moved population—Persons aged 5 and over in domestic households who were living in a census district 5 years ago that was different from the one in which they were enumerated, or who had immigrated/returned from outside Hong Kong during the past 5 years.

Natural increase—The balance of births and deaths.

Net migration—The balance of immigration and emigration.

Net movement of population (in internal movement)—The balance of in-movement and out-movement of a census district.

Net movement rate—The balance of in-movement rate and out-movement rate of a census district.

Net reproduction rate (NRR)—The average number of daughters that would be born to a woman during her lifetime if she passed through her childbearing years (i.e. from 15 to 49) conforming to the age-specific fertility rates and mortality rates of a given year.

New towns—The census districts of Tsuen Wan New Town, Tuen Mun New Town, Sha Tin New Town, Yuen Long New Town, Sheung Shui/Fanling New Town and Tai Po New Town. See the map of census districts in Part G.

Not working—Being engaged in productive work for less than 15 hours during the reference period or not at all. (See 'Activity status').

Number of children ever-born—The number of live births born to an ever-married woman. This does not include adopted children or children born to her husband by a different wife.

Number of occupants—The number of persons who were found to be in a living quarter on the census reference date.

Occupation—The kind of work performed by a person employed during the seven days before enumeration. The classification used follows the major groups of the International Standard Classification of Occupation. Unemployed persons (if previously worked) were classified by reference to their last job.

Professional, technical and related workers—Includes qualified professional scientists, doctors and dentists, architects, engineers and surveyors, marine and aviation officers and engineers; university academic staff; qualified teachers, system analysts and computer programmers; lawyers, accountants; members of religious orders; writers; artists, sportsmen, librarians, social workers; nurses and other para-medical workers; and other technicians.

Administrative and managerial workers—Includes administrative officers in government service; consular staff; directors, managers and working proprietors (except wholesale and retail trade, import and export, catering and lodging services) in industry, commerce, transport and services.

Clerical and related workers—Includes executive officers in government service, stenographers and typists, punching and computing machine operators, bookkeepers and clerks of any kind; transport conductors, postmen, telephone operators, ship's radio officers and flight radio operators.

Sales workers—Includes managers and working proprietors in wholesale and retail, import and export trade; sales supervisors, salesmen, shop assistants and hawkers.

Service workers—Includes managers and working proprietors of catering and lodging services, hotel and domestic staff, building caretakers, laundry workers, barbers and hairdressers, police and other disciplined services, tourist guides and other service workers.

Agricultural workers and fisherfolk (fishermen)—Includes master farmers, farm hands, gardeners in parks; master fishermen, fish farmers and oyster culturists.

Production and related workers, transport equipment operators and labourers—Includes foremen and supervisors in manufacturing and construction industries, miners and quarrymen; wood, metal and chemical processors, food and beverage processors, tobacco workers, textile workers, tailors and other clothing workers, shoemakers and other leather workers, blacksmiths, tool-makers, fitters and machinists, radio and electrical workers, printing and painting workers, musical instrument makers and other production workers; bricklayers, carpenters and other construction workers; stationary engine operators; hand packers, dockers and loaders; riggers and crane operators; seamen, drivers and lighthouse operators.

Armed forces and unclassifiable—Includes members of the armed services of British and other countries, and persons in occupation inadequately described or unclassifiable.

Out-movement of population—The number of persons aged 5 and over in domestic households living in a census district 5 years ago who were living in a different census district at the 1981 Census.

Out-movement rates—The ratio of out-movement from a census district to the average of the population aged 5 and over enumerated in the district in the 1981 Census and the population that would have been there had no internal movement occurred during the past 5 years. The out-movement rate is calculated as follows:

$$o = \frac{O}{(P-I) - \frac{1}{2}(M-O)}$$

where o =the out-movement rate

P =the population aged 5 and over in the district as enumerated in the census

O =the number of out-movements

I =the number of movers from abroad since 5 years ago

M =the number of in-movements

Persons with post-secondary or technical education—Persons whose highest level of education was attained in a Technical Institute (including craft course and diploma/certificate courses), the Polytechnic, College of Education, the Technical Teachers' College, School of Nursing, a post-secondary college, or at a university. A course is recorded only if:

- (i) it lasts at least one year;
- (ii) it includes an examination for assessment purposes; and
- (iii) it requires specific academic entrance qualifications.

Place of birth—The place where the person was born.

Place of origin—For Chinese, place of origin refers to their 'Heung Ha' (鄉下), i.e. the part of China from which the person's family originally came. For non-Chinese, it is the nationality or country of origin claimed. The place of origin for Hong Kong born persons who did not know their 'Heung Ha' was recorded as Hong Kong.

Hong Kong—Includes Tan Ka boat people whose 'home port' is in Hong Kong waters.

Guangzhou, Macao and adjacent places—Includes Zengcheng (增城), Hua Xian (花縣), Panyu (番禺), Sanshui (三水), Conghua (從化), Chixi (赤溪), Nan Hai (南海), Dapeng (大鵬), Dongguan (東莞), Huiyang (惠陽), Zhongshan (中山), Bocca Tigris (Humen 虎門), Ladrone Island (Wanshan 萬山), Lema Islands (Dangan Shan 担干山), Bao'an (寶安).

Siyi—Includes Kaiping (開平), Heshan (鶴山), Jiangmen (江門), Xinhui (新會), Tai Shan (台山), Enping (恩平).

Chaozhou—Includes Shanwei (汕尾), Shantou (汕頭), Chenghai (澄海), Haifeng (海豐), Nan'ao (南澳), Huilai (惠來), Chaoyang (潮陽), Fengshan (豐順), Nan Shan (南山), Raoping (饒平), Chao'an (潮安), Jieyang (揭陽), Puning (普寧).

Elsewhere in Guangdong—Includes other xians (縣) in Guangdong not listed above.

Elsewhere in China—Includes all provinces in China except Guangdong.

Countries in South East Asia—Singapore, Malaysia, The Philippines, Indonesia, Brunei, Cambodia, Vietnam, Laos, Burma and Thailand.

Population density—The ratio of the number of persons to total land area (in square kilometres) of the geographical division in which these persons were enumerated. It is a useful indicator of the spatial distribution of population.

Population projection (Projected population)—An estimate of the total future population when certain assumptions are made about the future courses of fertility, mortality and net migration. This is in general purely formal calculation, denoting the implications of the assumptions that are made.

Pupil-teacher ratio—The ratio of the total number of pupils enrolled to the total number of teachers.

Ratio of non-working to working members—The ratio of the number of household members who were not working to the number working.

Rent-income ratio—The ratio of the median household rent to the median household income. The calculation excludes households with zero income, owner-occupiers and rent-free households.

Secondary occupation—The kind of work performed by an employee, in addition to his main employment, during the thirty days before enumeration. The classification used follows the major group of the International Standard Classification of Occupation. (See 'Occupation' for details.)

Sex ratio—The number of males per 1 000 females.

Standard population—A population whose age and sex structure is used in the standardisation technique for comparison between different percentages/rates (e.g. percentage of ever-married persons, birth rate). The technique involves calculating the 'standardised percentage/rate' which is a weighted average of the age-sex-specific rates, with the respective weights taken from the percentage distribution of the standard population by age and sex.

Standardised percentage/rate—The percentage or rate derived by the standardisation technique which has the effect of eliminating the age and sex differences from the data for comparison. (See 'Standard population').

Street block—The delineation of tertiary planning units into smaller sub-units in Hong Kong Island, Kowloon, New Kowloon and the new towns and adjacent areas in the New Territories for town planning purpose. Each street block within a tertiary planning unit is identified by a unique two digit code number.

Studying full-time in school or educational institution (Full-time student)—Persons studying full-time (i.e. excluding evening/part-time day release courses) at a school, a post-secondary college, the Polytechnic, a Technical Institute, College of Education, the Technical Teachers' College, School of Nursing, or at a university. A course is included only if:

- (i) it lasts at least one year;
- (ii) it includes an examination for assessment purposes; and
- (iii) it requires specific academic entrance qualifications.

Full-time students include student workers except where a person's economic activity status is considered.

Studying part-time (Part-time student)—Includes courses in evening schools, part-time day release courses and evening courses offered by the Polytechnic, Technical Institutes and Colleges of Education. All correspondence courses except those leading to a first or higher degree are excluded. A course is included only if:

- (a) it lasts at least one year;
- (b) it includes an examination for assessment purposes; and
- (c) it requires specific academic entrance qualifications.

Tenure—The terms or conditions under which the accommodation is held.

Owner-occupier—One who owns the premises.

Sole tenant—One who rents a whole house or a flat/floor which is occupied by his household without subletting.

Main tenant—One who rents from a person, who does not live in the premises, a whole unit of accommodation, part of which is occupied by his household and part of which is sublet to one or more other households.

Sub-tenant—One who rents a sub-unit of accommodation from a person who lives in the same premises.

Co-tenant—One who rents from a person, who does not live in the premises, part of a unit of accommodation for the use of his household only. He should be sharing the premises with one or more other co-tenants.

Rent free (excluding premises provided by employer)—The household which occupies a unit of accommodation free, with or without permission. This excludes households residing in premises provided by employer.

Provided/Subsidised by employer—The household which receives an allowance for rent for a unit of accommodation. This includes households residing in staff quarters.

Tertiary planning unit (TPU)—A geographical town planning unit. For town planning purposes, the whole area of Hong Kong is delineated into primary planning units, secondary planning units and tertiary planning units. There are in total 270 tertiary planning units, each of which is identified by a unique three digit code number.

Total fertility rate (TFR)—The average number of children that would be born alive to a woman during her lifetime if she were to pass through her childbearing years (i.e. from 15 to 49) conforming to the age-specific fertility rates of a given year.

Transients—People who intended to stay in Hong Kong for less than 20 days.

Type of living quarter—The type of building in which a household's living quarter is located.

Self-contained quarter—A complete unit of residence which has its own entrance, an internal kitchen/cooking place, a toilet/bathroom and an internal piped water supply.

Housing Authority rental blocks (self-contained)—Self-contained units in Group A Housing Authority estates and quarters in Mark IV, Mark V and Mark VI type Group B Housing Authority estates.

Housing Authority rental blocks (non self-contained)—Non self-contained units in Group A Housing Authority estates and quarters in Mark I, Mark II and Mark III type Group B Housing Authority estates.

Private housing blocks—Includes

- apartment blocks—multi-storey buildings containing separate residential flats each of which has basic facilities;
- tenement floors—multi-storey buildings containing flats built as a single un-partitioned room;
- composite buildings—apartment blocks where the flats in some floors are built for commercial use; and
- Housing Society Urban Improvement Scheme estates.

Modern houses—Bungalows and villas with bathrooms, flush toilet system, internal kitchens and piped water supply.

Modern village houses—Village houses with modern design built of permanent materials with kitchens, toilets and piped water supply.

Simple stone structures—Traditional village type houses and other structures made of permanent/semi-permanent materials with tiles, bricks, or asbestos sheets as roof material.

Institutions—Hospitals, old people's homes, religious houses, maternity homes, used monasteries and prisons, etc.

Other permanent housing—Boarding houses, hotels and other profit making residential institutions; quarters in buildings principally used as factories, offices, department stores, clinics, public lavatories etc., staff quarters in government and non-government organisation buildings.

Roof-top structures—Structures of non-permanent or semi-permanent materials built on the roofs of permanent buildings.

Other temporary housing—Housing Authority cottages and temporary huts, nissen huts, contractor's matsheds, derelict boats, huts and shacks built of non-permanent materials; and also places not intended for domestic purpose but were occupied during the reference period such as landings, staircases, corridors and street-sides (includes 'roof-top structures' when such classification does not appear separately).

Type of living quarter and accommodation—The type of building in which a household's living quarter is located and the type of living space occupied by the household on the census reference date. (See 'Type of living quarter' for further details.)

Whole house/flat—A complete flat/floor/house occupied by one household.

Room/cubicle—Part of a living quarter enclosed by fixed partition to accommodate a household.

Bedspace/cockloft, etc.—Bedspace, cockloft (i.e. a raised platform or kind of a gallery inside a shop or house usually intended for storage but used for living purpose), accommodation not within a quarter (e.g. staircases, street-sides) and quarters not intended for living (e.g. shops, workshops, storerooms and schools) with no area partitioned off for living and sleeping but were occupied on the reference night.

Unemployed persons—See 'Activity status'.

Unemployment rate—The proportion of unemployed persons bears to the total economically active population.

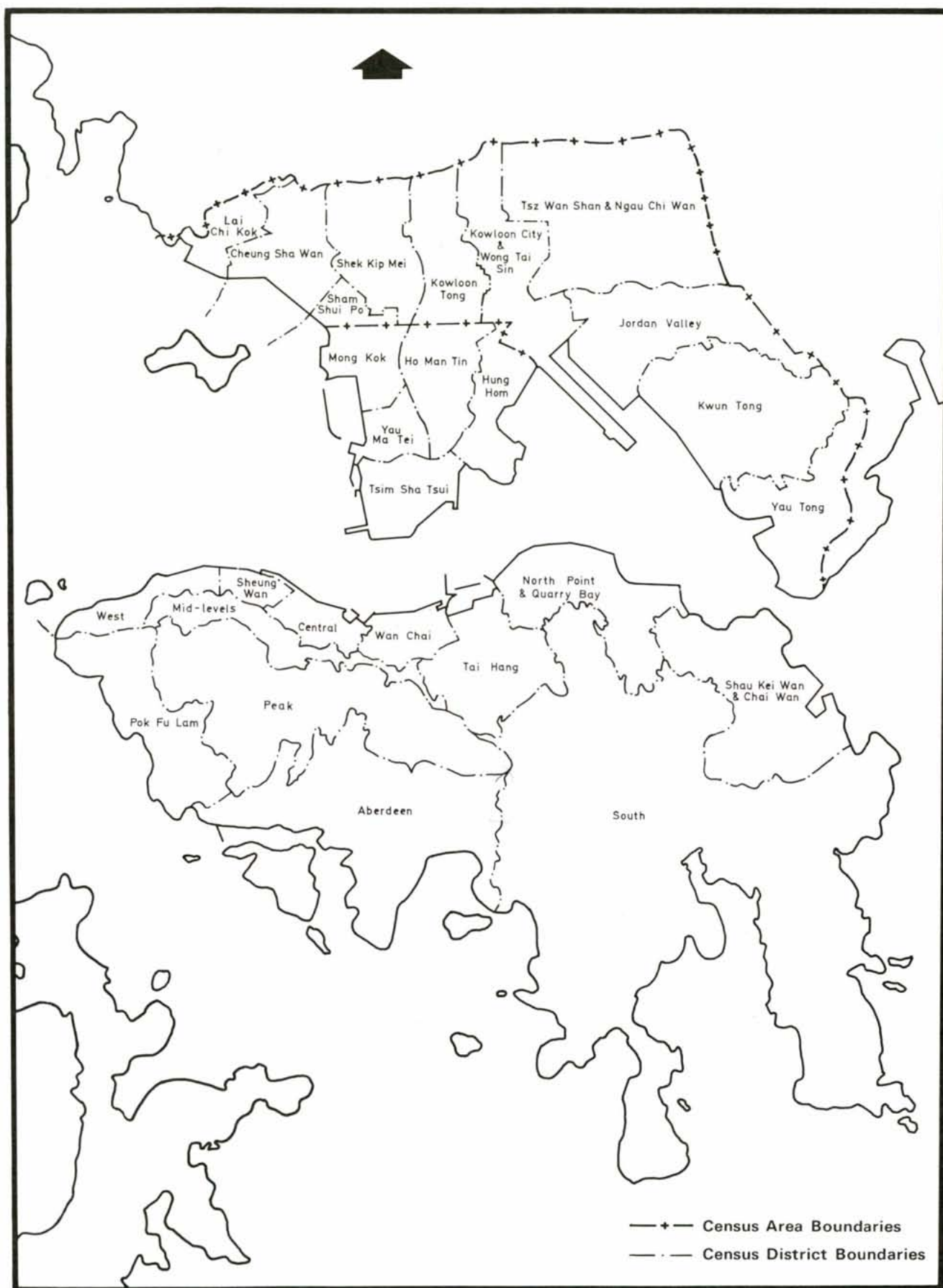
Village cluster—The delineation of tertiary planning units in the New Territories (excluding areas covered by the street blocks) into smaller units for census enumeration purposes. Each village cluster within a tertiary planning unit is identified by a unique two digit code number.

Working (Working persons)—Being engaged in productive work for at least 15 hours during the reference period (the hour criterion did not apply to employer, the self-employed, farmers and fisherfolk), or on leave or industrial dispute. (See 'Activity status'.)

PART G

MAPS OF CENSUS DISTRICTS

Census District Boundaries: Hong Kong Island, Kowloon and New Kowloon



Census District Boundaries: The New Territories

