



# HONG KONG 1986 BY-CENSUS

## Main Report Volume 1

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Census and Statistics Department  
Hong Kong



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# Volume 1

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# Foreword

This is the last in the series of published reports on the 1986 By-Census. It presents the main body of data from the By-Census in the form of summary and detailed tables. Comparisons have been made with past censuses whenever appropriate.

The report consists of two volumes. Volume 1 contains a set of summary tables on the demographic characteristics of population size, sex and age structure, marital status and place of birth and on the socio-economic characteristics of education, labour force, households and housing, internal population movements and population in the new towns. A short account is given of the general findings of the By-Census on these demographic and socioeconomic variables. A description is also given of the census procedures—the taking of the By-Census, the sample design and assessment of data quality. Volume 2 contains a comprehensive set of detailed tables covering the broad range of social, economic and demographic characteristics of the population.

November 1987

Richard Butler  
Commissioner for Census & Statistics

## General Note

Throughout this report, figures for 1981 and 1986 have been adjusted for non-contact households. For 1976, no adjustment has been made except for Tables 2, 3, 5, 6, 7, 24, 25, 26, 27, 28, 29, 30, 31 and 39.

## Symbols

The following symbols are used in the report:

— Signifies zero or value negligible

.. Signifies not applicable

# **MAIN RESULTS**



# Demographic Characteristics

## Census count and population growth

The 1986 By-Census estimated a *de facto* count of the population of 5 431 200 in Hong Kong on 11 March 1986. This figure comprised an estimate of 5 396 000 residents enumerated in the territory and an estimate of 26 100 transients and 9 100 refugees. The By-Census also recorded an estimate of 99 500 residents who were temporarily away from Hong Kong on the reference date. The analysis and tables given in this report, however, refer only to the enumerated resident population. (Table 1)

The early census in 1921 recorded the population in Hong Kong of some 0.6 million. The main influence of population growth in this period was net migration. In the following two decades, the population of Hong Kong changed rapidly but erratically due to the large and sporadic immigration from China. The first postwar census in 1961 recorded a total figure of 3.1 million. The succeeding decade saw an annual growth rate of 2.3 per cent to the total of 3.9 million recorded in the 1971 Census. By 1981, the population had reached the 5 million mark. (Table 2)

The pace of population growth during the past two and half decades has decelerated except for the short period 1976–81. The average annual rate of population increase for the decade 1961–71 was 2.3 per cent; that for the period 1981–86 was 1.6 per cent. The rate, however, increased from 2.1 per cent over the period 1971–76 to 2.8 per cent over the period 1976–81, the change being due to a large inflow of immigrants from China during the years 1978–80. (Table 2)

## Geographical distribution and population density

In 1961, about one-third of the population were on Hong Kong Island, half of them in Kowloon and New Kowloon and only 13 per cent in the New Territories. This position has now changed substantially as a result of large scale population redistribution in the past decades, following the implementation of the New Town Development Programme. The New Territories had recorded the biggest increase, 1.5 million between 1961 and 1986, compared with an overall increase of 2.3 million during the same period. In 1986, Hong Kong Island had only 22 per cent of the total population, Kowloon and New Kowloon 43 per cent but the New Territories 35 per cent. A major proportion of the increase in population in the New Territories took place over the last 10 years. On the other hand, the marine population continued to decline—its 4 per cent share of the total in 1961 had plummeted to a negligible proportion by 1986. (Table 3)

Between 1981 and 1986, the overall density increased by 8 per cent, from 4 760 people per km<sup>2</sup> to 5 130 per km<sup>2</sup>. However, population redistribution from the main urban areas to the new towns had resulted in diverse changes in density at the district level. All the New Territories districts recorded an increase in density, especially substantial for Sha Tin (plus 203 per cent), Tuen Mun (plus 137 per cent) and Tai Po (plus 88 per cent). The increase in these densities eclipsed the small increase of 8 per cent in the overall density and the decrease in the densities of most of the districts in the main urban areas (Hong Kong Island, Kowloon and New Kowloon). Mong Kok was still the densest district, with 139 600 people per km<sup>2</sup>. (Table 4)

## Age structure

In the pre-war decades when migration was a significant determinant of population growth, the age structure was characterized by a dominance of males over females, particularly in the young working ages 15–44, and a relatively small proportion of children and the aged. (Table 5)

In the postwar years, natural increase played an increasing role in determining the population trend. The age structure of the population was seen to be changing in the direction reflecting the influence of the decline in fertility, which began in the late 1960's, and the aging of earlier immigrants. Sporadic immigration from China, however, caused erratic changes in the age structure. The noticeable example is the dramatic increase in the population aged 15–44 in 1981, following the large inflow of immigrants from China (who were predominantly young) during the years 1978–80. (Table 5)

The total population increased 72 per cent over the period 1961–86. The rate of increase, however, varied considerably from one broad age group to another. There were 2 per cent less children in 1986 than in 1961, but 112 per cent more young people and the adult and 365 per cent more elderly people. The result of these varying growth rates was the overall aging of the population. The proportion of the population aged 65 and above has risen from 3 per cent in 1961 to 8 per cent in 1986. In contrast, the proportion of the population under 15 has fallen from 41 per cent to 23 per cent. The median age of the population increased significantly from 23.2 in 1961 to 28.6 in 1986. (Tables 5, 6)

The most important point to emerge from an aging population is the changing level and nature of economic dependency of the population. While the overall dependency—the ratio of the child population and the elderly to the population of working age (those aged between 15 and 64) decreased continuously over the past 25 years, the nature of dependency shifted from the young to the aged. (Table 6)

## Sex composition

The sex ratio of the population (i.e. number of males per 1 000 females) fluctuated within the 1 033–1 093 range over the period 1961–86. The high ratio in 1981 (1 093) can be explained by the large inflow of immigrants from China during the years 1978–80, who were predominantly males. (Table 7)

At young ages, the sex ratio was directly determined by the number of male and female newborns in the population during past years. The sex ratio at birth in Hong Kong was approximately 1 067. At the middle-age range, the sex ratio was affected erratically by immigration which, in all past circumstances, was sex selective (male immigrants outnumbered female immigrants). The high sex ratios at ages 15–44 in 1981 were the result of the large inflow of young male immigrants from China during the years 1978–80. (Table 7)

At the older ages, the sex ratio reflected the combined influences of the tendency of women to live longer than men and the aging of earlier immigrants. The more rapid improvement in male mortality than in female mortality during the past decades also had a significant effect on these age-sex ratios. In 1961, there were only 589 males for every 1 000 females in the age group 60–64; in 1986 the ratio was 999. The sex ratio for the age group 65 and above had a similar increase, from 423 to 726. (Table 7)

## Place of birth

The proportion of the population born in Hong Kong, which always forms the largest group, remained effectively unchanged, at 59 per cent, between 1976 and 1986. Concurrently, there was a slight decrease in the proportion of China-born population, from 39 per cent to 37 per cent. The moderate change in the place-of-birth proportions over the last 10 years can be explained by the large inflow of immigrants from China during the period 1978–80, without which there would have been an appreciably greater change in the proportions. (Table 8)

For each age cohort between 1976 and 1986, the proportion of Hong Kong-born population decreased as a result of the large immigration during the same period. The decrease was particularly significant among those aged 15–44 in 1976. For example, for the 15–24 age cohort in 1976, there was a 20 per cent decrease in the proportion of Hong Kong-born males or females. (Table 9)

## Marital status

The trends over the last 10 years have been for an increase in the proportion never married and a decrease in the proportion married, the change being more noticeable for females. The change in the marital status distribution was not easily recognized if not discounting the difference in the age structure of the population between 1976 and 1986. The increase in the proportion never married (and, concurrently, the decrease in the proportion married) can be explained partly by the large inflow of immigrants from China during the years 1978–80, who were predominantly young and unmarried, and partly by a continuing tendency, especially among females, towards delayed marriage. (Tables 10, 11, 12)

There was a larger proportion never married for males than for females in all ages, particularly at ages 25 and above. On the other hand, there was a continuous increase in the proportion never married for all age groups, except the age groups 35 and above for males and the age groups 45 and above for females, over the period 1976–86; and the increase was especially substantial for females. The increase in this proportion for the marriageable ages reflected a greater tendency of women to delay marriage. (Table 13)

In view of the trend of delayed marriage, it is not surprising that the proportion married for ages under 35 decreased substantially over the last 10 years, in particular for females. At the higher ages, the growing instability of marriage was the important underlying factor for the decrease in the proportion married. (Table 14)

The proportion separated or divorced increased significantly over the period 1976–86, for both males and females. In 1976, there were about 9 out of every 1 000 ever-married people who divorced or separated; in 1986, the figure was 16. (Table 15)

The proportion widowed was generally low in Hong Kong. At ages below 45 for males and 35 for females, there were less than 1 per cent widowers and widows respectively. But at ages 50 and above, there were 9 per cent widowers and some 37 per cent widows. The widow proportion was higher than the widower proportion for all ages, particularly for ages 45 and above. This was attributable to the tendency of women to live longer than men. Throughout the period 1976–86, these proportions showed little change except at ages 50 and above where a significant increase was recorded, particularly for females. The large increase in the widow and widower proportions can be explained by the inflow of elderly immigrants during the period 1978–80, who were married and were widowed and who came to join their children or other relatives. (Table 16)

Table 1 Enumerated Population and Resident Population; 1986 By-Census

<i>Type</i>	<i>Enumerated* population</i>	<i>Resident population</i>
Resident population enumerated in the By-Census	5 395 997	5 395 997
Transients #	26 106	..
Vietnamese refugees pending permanent resettlement overseas	9 131	..
Residents away from Hong Kong on reference date	..	99 491
<b>Total</b>	<b>5 431 234</b>	<b>5 495 488</b>

\* Population on the reference date of 11th March 1986.

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

Table 2 Total Population from Censuses since 1921

<i>Year</i>	<i>Total population</i>	<i>Absolute increase</i>	<i>Average annual growth rate (per cent)</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
1986	5 395 997	409 437	1.6

\* The average annual growth rate for the period 1931–61 was omitted because the population had changed erratically during the war years.

Table 3 Total Population by Area; 1961–1986

<i>Area</i>	<i>1961</i>	<i>1966</i>	<i>1971</i>	<i>1976</i>	<i>1981</i>	<i>1986</i>
Hong Kong Island	1 004 875	1 030 970	996 183	1 026 870	1 183 621	1 175 860
Kowloon and New Kowloon	1 578 026	2 032 830	2 194 853	2 378 480	2 449 021	2 301 691
New Territories	409 945	542 600	665 700	938 440	1 304 171	1 881 166
Marine	136 802	102 520	79 894	59 200	49 747	37 280
<b>Total</b>	<b>3 129 648</b>	<b>3 708 920</b>	<b>3 936 630</b>	<b>4 402 990</b>	<b>4 986 560</b>	<b>5 395 997</b>

**Table 4 Density of Population by District; 1981 and 1986**

(Number of persons per square kilometre)

<i>District</i>	<i>1981</i>	<i>1986</i>
Central and Western	22 853	20 425
Wan Chai	23 082	19 733
Eastern	26 379	26 825
Southern	5 716	6 234
Kowloon City	52 704	46 185
Kwun Tong	53 918	59 727
Mong Kok	170 590	139 594
Sham Shui Po	61 494	55 658
Wong Tai Sin	52 621	45 985
Yau Ma Tei	53 041	44 232
Islands	281	288
North	832	1 060
Sai Kung	334	359
Sha Tin	1 759	5 325
Tai Po	544	1 023
Tsuen Wan	7 784	4 085
Kwai Chung and Tsing Yi		21 119
Tuen Mun	1 510	3 573
Yuen Long	1 376	1 530
Overall	4 760	5 130

**Table 5 Population by Age and Sex; 1921–1986**

<i>Age Group</i>	<i>Sex</i>	<i>1921</i>	<i>1931</i>	<i>1961</i>	<i>1966</i>	<i>1971</i>	<i>1976</i>	<i>1981</i>	<i>1986</i>
Under 15	M	82 519	119 209	664 015	769 970	720 120	680 410	642 365	649 638
	F	78 594	111 321	613 020	718 040	687 784	644 850	595 142	597 309
	T	161 113	230 530	1 277 035	1 488 010	1 407 904	1 325 260	1 237 507	1 246 947
15–24	M	101 207	127 198	201 482	310 770	392 868	496 500	600 204	520 089
	F	46 889	72 372	166 356	274 330	371 329	471 580	547 553	492 770
	T	148 096	199 570	367 838	585 100	764 197	968 080	1 147 757	1 012 859
25–44	M	146 924	164 712	508 754	493 640	487 336	571 610	751 273	914 311
	F	78 154	114 524	446 354	455 480	419 683	479 340	614 309	830 919
	T	225 078	279 236	955 108	949 120	907 019	1 050 950	1 365 582	1 745 230
45–64	M	45 270	61 908	207 400	270 200	341 139	415 360	477 733	516 642
	F	29 169	49 442	234 349	295 050	338 799	400 540	431 172	465 777
	T	74 439	111 350	441 749	565 250	679 938	815 900	908 905	982 419
65 and over	M	5 720	6 559	26 128	36 290	59 139	87 180	132 593	171 784
	F	5 660	9 078	61 790	85 150	118 433	155 620	194 216	236 758
	T	11 380	15 637	87 918	121 440	177 572	242 800	326 809	408 542
Not stated	M	1 217	2 994	..	..	..	..	..	..
	F	3 843	1 156	..	..	..	..	..	..
	T	5 060	4 150	..	..	..	..	..	..
Total	M	382 857	482 580	1 607 779	1 880 870	2 000 602	2 251 060	2 604 168	2 772 464
	F	242 309	357 893	1 521 869	1 828 050	1 936 028	2 151 930	2 382 392	2 623 533
	T	625 166	840 473	3 129 648	3 708 920	3 936 630	4 402 990	4 986 560	5 395 997

**Table 6 Percentage Distribution of Population by Age; Median Age and Dependency Ratios; 1961–1986**

<i>Age Group</i>	<i>1961</i>	<i>1971</i>	<i>1976</i>	<i>1981</i>	<i>1986</i>
Under 15	40.8	35.8	30.1	24.8	23.1
15–24	11.8	19.4	22.0	23.0	18.8
25–44	30.5	23.0	23.9	27.4	32.3
45–64	14.1	17.3	18.5	18.2	18.2
65 and over	2.8	4.5	5.5	6.6	7.6
Total	100.0	100.0	100.0	100.0	100.0
	Median Age				
	23.2	21.7	23.9	26.0	28.6
	Dependency Ratios (per 1 000 population aged 15–64)				
Aged under 15	724	599	467	362	333
Aged 65 and over	50	76	86	95	109
Overall	774	675	553	457	442

**Table 7 Sex Ratios of Population by Age; 1961–1986**

(Number of males per 1 000 females)

<i>Age Group</i>	<i>1961</i>	<i>1971</i>	<i>1976</i>	<i>1981</i>	<i>1986</i>
Under 5	1 060	1 055	1 081	1 093	1 088
5– 9	1 076	1 042	1 051	1 080	1 078
10–14	1 126	1 046	1 040	1 067	1 096
15–19	1 205	1 055	1 049	1 078	1 085
20–24	1 216	1 062	1 057	1 114	1 032
25–29	1 175	1 237	1 146	1 155	1 052
30–34	1 153	1 225	1 291	1 219	1 082
35–39	1 105	1 120	1 261	1 316	1 131
40–44	1 121	1 097	1 125	1 284	1 218
45–49	1 072	1 071	1 128	1 184	1 188
50–54	942	1 071	1 007	1 138	1 156
55–59	747	990	1 031	1 067	1 079
60–64	589	825	956	1 014	999
65 and over	423	499	560	683	726
Overall	1 056	1 033	1 046	1 093	1 057

**Table 8 Population by Place of Birth; 1976, 1981 and 1986**

<i>Place of Birth</i>	<i>1976</i>		<i>1981</i>		<i>1986</i>	
		<i>%</i>		<i>%</i>		<i>%</i>
Hong Kong	2 541 730	58.9	2 854 482	57.2	3 203 165	59.4
China	1 663 400	38.6	1 973 976	39.6	1 999 185	37.0
Elsewhere	107 580	2.5	158 102	3.2	193 647	3.6
<b>Total</b>	<b>4 312 710</b>	<b>100.0</b>	<b>4 986 560</b>	<b>100.0</b>	<b>5 395 997</b>	<b>100.0</b>

**Table 9 Percentage of Population Born in Hong Kong by Age and Sex; 1976, 1981 and 1986**

<i>Age Group</i>	<i>1976</i>		<i>1981</i>		<i>1986</i>	
	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>
Under 15	95.3	95.4	90.5	90.9	90.4	91.3
15–24	83.1	85.7	78.5	83.9	83.7	84.9
25–34	42.7	47.9	54.6	60.1	66.7	69.0
35–44	22.3	24.8	22.4	25.8	36.0	38.7
45–54	14.4	16.0	17.0	19.2	20.7	22.8
55–64	11.3	12.4	12.4	14.3	14.6	15.7
65 and over	10.9	11.3	11.0	11.7	11.4	12.0
<b>Overall</b>	<b>58.6</b>	<b>59.3</b>	<b>56.1</b>	<b>58.5</b>	<b>59.1</b>	<b>59.6</b>

Table 10 Population Aged 15 and Over by Sex and Marital Status; 1976, 1981 and 1986

<i>Sex and Marital Status</i>	<i>1976</i>	<i>1981</i>	<i>1986</i>
<b>Male</b>			
Never married	665 070	848 037	843 697
Married	833 140	1 059 856	1 207 549
Widowed	23 110	41 492	50 491
Divorced/Separated	9 190	12 418	21 089
Total	1 530 510	1 961 803	2 122 826
<b>Female</b>			
Never married	469 540	582 430	616 955
Married	877 800	1 001 503	1 162 301
Widowed	121 870	191 474	225 380
Divorced/Separated	7 900	11 843	21 588
Total	1 477 110	1 787 250	2 026 224

Table 11 Percentage Distribution of Population Aged 15 and Over by Sex and Marital Status; 1976, 1981 and 1986

<i>Sex and Marital Status</i>	<i>Crude percentage</i>			<i>Standardized percentage*</i>		
	<i>1976</i>	<i>1981</i>	<i>1986</i>	<i>1976</i>	<i>1981</i>	<i>1986</i>
<b>Male</b>						
Never married	43.5	43.2	39.7	38.9	38.9	39.7
Married	54.4	54.1	56.9	58.7	58.0	56.9
Widowed and Divorced/Separated	2.1	2.7	3.4	2.4	3.1	3.4
Total	100.0	100.0	100.0	100.0	100.0	100.0
<b>Female</b>						
Never married	31.8	32.6	30.4	26.4	27.9	30.4
Married	59.4	56.0	57.4	64.6	60.2	57.4
Widowed and Divorced/Separated	8.8	11.4	12.2	9.0	11.9	12.2
Total	100.0	100.0	100.0	100.0	100.0	100.0

\* Using the 1986 age distribution of the male and female population as standard.

**Table 12 Ever-married Population by Age and Sex; 1976, 1981 and 1986**

<i>Age Group</i>	<i>1976</i>		<i>1981</i>		<i>1986</i>	
	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>
15-19	1 730	10 020	3 761	9 213	1 442	4 485
20-24	23 400	65 520	32 608	79 269	22 196	58 759
25-29	81 290	123 770	110 042	156 233	117 445	183 223
30-34	80 750	83 050	159 291	159 999	181 765	203 848
35-39	99 950	95 490	112 211	96 062	184 619	176 170
40-44	113 190	112 610	124 072	106 749	121 554	105 001
45-49	115 800	109 380	128 188	116 616	128 683	114 185
50 and over	349 330	407 730	443 593	480 679	521 425	563 598
<b>Total</b>	<b>865 440</b>	<b>1 007 570</b>	<b>1 113 766</b>	<b>1 204 820</b>	<b>1 279 129</b>	<b>1 409 269</b>

**Table 13 Percentage of Population Never-married by Age and Sex; 1976, 1981 and 1986**

<i>Age Group</i>	<i>1976</i>		<i>1981</i>		<i>1986</i>	
	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>
15-19	99.4	96.1	98.7	96.6	99.4	97.9
20-24	89.3	68.4	89.4	71.3	92.2	78.7
25-29	57.1	25.6	57.5	30.3	61.9	37.5
30-34	28.7	6.9	27.3	11.0	29.5	14.5
35-39	18.3	2.8	15.2	4.5	14.2	7.4
40-44	11.6	2.2	11.9	2.7	8.6	3.8
45-49	8.0	2.7	9.2	2.3	7.4	2.4
50 and over	4.3	5.8	5.4	5.0	5.1	3.7

**Table 14 Percentage of Population Married by Age and Sex; 1976, 1981 and 1986**

<i>Age Group</i>	<i>1976</i>		<i>1981</i>		<i>1986</i>	
	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>
15-19	0.6	3.9	1.3	3.4	0.6	2.0
20-24	10.6	31.5	10.4	28.4	7.7	21.0
25-29	42.6	74.0	41.9	68.9	37.5	61.7
30-34	70.6	92.2	71.8	87.5	69.2	83.5
35-39	80.4	95.2	83.5	92.9	84.0	89.4
40-44	86.6	94.3	86.0	93.0	89.1	91.4
45-49	89.5	90.8	88.0	90.1	89.4	89.6
50 and over	89.2	67.7	85.8	59.1	85.0	59.0

**Table 15 Percentage of Ever-married Population Divorced/Separated by Age and Sex; 1976, 1981 and 1986**

<i>Age Group</i>	<i>1976</i>		<i>1981</i>		<i>1986</i>	
	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>
15-24	0.6	0.4	1.1	0.7	1.4	1.0
25-29	0.6	0.4	1.0	0.7	1.5	1.0
30-34	0.7	0.4	1.0	0.9	1.6	1.6
35-39	1.1	0.6	1.0	1.0	1.8	1.9
40-44	1.2	0.7	1.5	1.0	1.8	1.9
45-49	1.3	1.0	1.3	1.1	2.0	1.9
50 and over	1.1	1.1	1.0	1.1	1.5	1.5
Overall	1.1	0.8	1.1	1.0	1.6	1.5

**Table 16 Percentage of Ever-married Population Widowed by Age and Sex; 1976, 1981 and 1986**

<i>Age Group</i>	<i>1976</i>		<i>1981</i>		<i>1986</i>	
	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>
15-24	0.1	0.1	0.4	0.4	0.1	0.2
25-29	0.1	0.2	0.3	0.4	0.2	0.3
30-34	0.2	0.6	0.2	0.8	0.3	0.8
35-39	0.4	1.5	0.5	1.7	0.3	1.6
40-44	0.9	2.9	1.0	3.4	0.8	3.1
45-49	1.4	5.7	1.7	6.6	1.4	6.3
50 and over	5.7	27.0	8.3	36.7	8.9	37.3



# Educational Characteristics

## Introduction

Data on educational level and attainment of the population are important for understanding changes in such social facets as income, occupation and mobility. The population census is the main source of this information. 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 12–18 age group. For the first three years in the secondary cycle, namely Form I to 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 matriculation course leading to the Higher/Advanced Level Examinations to prepare them for entry into universities, other post-secondary institutions or employment;
- (d) post-secondary and university education which offer a wide range of choices to students completing secondary or matriculation education, leading to the award of degrees, post-secondary diplomas or other vocational or professional qualifications such as teacher certificates and engineering technician certificates.

The following sections summarize the changes in the educational attainment of the population and in its level of school attendance and give a brief account of the characteristics of the population having technical or tertiary education.

## Educational attainment

There has been a marked improvement in educational opportunities over the past two and half decades. Improvement was particularly significant in the higher levels of education. In 1986, 14 per cent of the population aged 15 and above had matriculation or tertiary education and 43 per cent had secondary education; in 1976, these figures were 7 per cent and 33 per cent respectively. The increase in the proportion of the population having secondary or higher education was even more spectacular when compared with 1961. (Table 17)

In general, males were better educated than females. There was a larger proportion of males than females having primary or a higher level of education; but the gap has been narrowing steadily since 1961, and more rapidly since 1976. Particularly notable was the improvement in the middle levels of education (upper secondary and matriculation) for females. (Table 18)

With continuous improvement in the educational attainment of the population over time, it is obvious that the proportions of those in the younger age groups who had primary or higher education were substantially higher than those in the older age groups. The introduction in 1971 of compulsory primary education had its impact most noticeably in the age group 15–24 in which the proportion having primary or higher education was approaching 100 per cent. (Table 19)

## School attendance

An increasing proportion of children aged 3–5 was attending kindergarten and nursery, 92 per cent in 1986 as compared with 60 per cent in 1976. The rate of school attendance for children aged 6–11 was close to 100 per cent. A growing proportion of the young population chose to continue their education after lower secondary normally beyond age 14, by which age school attendance is no longer compulsory. The attendance rates for the age groups 12–16 and 17–18 have risen significantly, as a result of improvements in school attendance at the secondary level of education and matriculation, the increase being more substantial for females than for males. (Table 20)

## Technical and tertiary education

The numbers of the population who had technical or tertiary education increased tremendously in the last 10 years, from 5 per cent of the population aged 15 and above in 1976 to 9 per cent in 1986. Such an improvement was pervasive across all ages but most significantly at ages 15–19. (Table 21)

Of those who had technical or tertiary education, almost all of them had completed their education by age 30. Below that age, a substantial proportion of them, 29 per cent, was still studying; at ages 15–19 the figure was 71 per cent. (Table 21)

Over the last 10 years, there was a phenomenal increase in the number of the female population having technical education or tertiary education of non-degree courses in Technical Institutes and Polytechnics, from 3 300 in 1976 to 44 380 in 1986. For males, the corresponding increase was relatively less significant. There was also a proportionately larger increase in the number of females having other post-secondary or university education, the number of which in 1986 was almost thrice that in 1976; for males, the number was just doubled. (Table 22)

At least 55 per cent of the population having technical or tertiary education had their training in the fields of 'arts and social science', 'business, commercial and computer studies' and 'mechanical, electrical, electronic and marine engineering'. The numbers trained in commerce and mechanical and electrical engineering recorded a more substantial increase, 75 per cent, than the overall increase (only 51 per cent) over the last five years. There was also a phenomenal increase in the numbers trained in 'textile, design and other industrial technology' and 'other vocational studies'. These changes can be seen as a sign of a gradual shift in popularity towards commerce and industry oriented studies. (Table 23)

Table 17 Population Aged 15 and Over by Educational Attainment; 1961–1986

<i>Educational Attainment</i>	1961	1971	1976	1981	1986
No schooling/Kindergarten	527 078	574 793	608 140	604 623	585 891
Primary	840 747	1 114 464	1 195 160	1 283 393	1 212 914
Lower secondary	243 002	338 104	469 760	679 531	755 293
Upper secondary	} 197 748	} 435 750	529 500	796 403	1 023 885
Matriculation			80 390	171 565	272 251
Tertiary: Non-degree courses			27 540	87 744	118 671
Tertiary: Degree courses	44 038	65 615	97 130	125 794	180 145
<b>Total</b>	<b>1 852 613</b>	<b>2 528 726</b>	<b>3 007 620</b>	<b>3 749 053</b>	<b>4 149 050</b>
	(Per cent)				
No schooling/Kindergarten	28.5	22.7	20.2	16.1	14.1
Primary	45.3	44.1	39.8	34.3	29.2
Lower secondary	13.1	13.4	15.6	18.1	18.2
Upper secondary	} 10.7	} 17.2	17.6	21.2	24.7
Matriculation			2.7	4.6	6.6
Tertiary: Non-degree courses			0.9	2.3	2.9
Tertiary: Degree courses	2.4	2.6	3.2	3.4	4.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Table 18 Percentage Distribution of Population Aged 15 and Over by Sex and Educational Attainment; 1961–1986

<i>Sex and Educational Attainment</i>	1961	1971	1976	1981	1986
<b>Male</b>					
No schooling/Kindergarten	9.4	9.9	9.2	7.6	7.0
Primary	55.7	49.5	43.3	36.8	30.8
Lower secondary	17.6	16.2	18.7	21.3	21.9
Upper secondary	} 13.7	} 20.5	19.8	22.2	24.7
Matriculation			3.7	5.3	7.1
Tertiary: Non-degree courses			0.8	2.3	2.9
Tertiary: Degree courses	3.6	3.9	4.5	4.5	5.6
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Female</b>					
No schooling/Kindergarten	48.2	35.9	31.6	25.5	21.6
Primary	34.8	38.4	36.1	31.6	27.7
Lower secondary	8.4	10.5	12.4	14.6	14.3
Upper secondary	} 7.5	} 13.9	15.3	20.2	24.6
Matriculation			1.7	3.7	6.0
Tertiary: Non-degree courses			1.0	2.4	2.8
Tertiary: Degree courses	1.1	1.3	1.9	2.0	3.0
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

Table 19 Population Having Primary or Above Education by Age; 1976, 1981 and 1986

<i>Age Group</i>	<i>1976</i>	<i>1981</i>	<i>1986</i>	<i>Percentage of population in age group</i>		
				<i>1976</i>	<i>1981</i>	<i>1986</i>
5-14	810 960	739 704	747 202	87.0	87.1	87.6
15-24	928 550	1 129 540	1 004 573	97.8	98.4	99.2
25-34	520 360	846 066	1 068 693	93.2	95.9	97.3
35-44	363 800	425 681	604 625	78.5	88.1	93.4
45-54	304 720	364 957	410 367	65.3	70.6	78.1
55 and over	282 050	378 186	474 901	49.5	52.6	54.9
Total	3 210 440	3 884 134	4 310 361	81.5	84.5	86.2

Table 20 School Attendance Ratios by Age and Sex; 1976, 1981 and 1986

(Number of full-time students per 100 population)

<i>Age Group</i>	<i>1976</i>		<i>1981</i>		<i>1986</i>	
	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>
3- 5	60.7	60.1	83.5	82.7	91.5	91.7
6-11	98.1	97.8	98.5	98.5	99.5	99.5
12-16	82.5	75.5	83.4	84.6	92.2	94.5
17-18	46.2	41.2	44.9	45.0	53.9	58.3

Table 21 Population Having Technical or Tertiary Education by Age and Whether Studying Full-time in Post-secondary Colleges/Universities; 1976, 1981 and 1986

<i>Year and Age Group</i>	<i>Studying full-time</i>	<i>Not studying*</i>	<i>Total</i>	<i>Percentage of population in age group</i>
1976				
15-19	4 770	3 880	8 650	1.7
20-29	17 060	48 130	65 190	8.3
30-39	330	39 280	39 610	9.4
40-49	—	22 600	22 600	4.7
50 and over	..	25 150	25 150	3.2
Total	22 160	139 040	161 200	5.4
1981				
15-19	8 683	5 385	14 068	2.5
20-29	24 586	78 492	103 078	9.7
30-39	403	60 447	60 850	9.6
40-49	5	45 288	45 293	8.9
50 and over	..	34 534	34 534	3.5
Total	33 677	224 146	257 823	6.9
1986				
15-19	16 751	6 727	23 478	5.2
20-29	37 632	125 468	163 100	14.0
30-39	644	96 600	97 244	10.8
40-49	14	56 553	56 567	11.4
50 and over	..	48 391	48 391	4.3
Total	55 041	333 739	388 780	9.4

\* Including those studying part-time in post-secondary colleges/universities.

**Table 22 Population Aged 15 and Over Having Technical or Tertiary Education by Sex and Educational Attainment; 1976, 1981 and 1986**

<i>Sex and Educational Attainment</i>	<i>1976</i>	<i>1981</i>	<i>1986</i>
<b>Male</b>			
Technical:			
Craft courses in technical institutes	16 570	7 569	10 339
Certificate/diploma courses in technical institutes/ polytechnics	17 580	25 612	44 744
Tertiary:			
Higher diploma/endorsement certificate courses in technical institutes/polytechnics	} 6 900	11 546	23 289
Associateship or equivalent courses in polytechnics		760	3 899
Teacher and nurse training courses	5 630	7 814	8 953
Other non-degree courses	} 69 600	24 266	24 899
Degree courses		89 165	119 581
Total	116 280	166 732	235 704
<b>Female</b>			
Technical:			
Craft courses in technical institutes	780	707	1 904
Certificate/diploma courses in technical institutes/ polytechnics	1 600	10 397	32 977
Tertiary:			
Higher diploma/endorsement certificate courses in technical institutes/polytechnics	} 920	5 588	8 414
Associateship or equivalent courses in polytechnics		150	1 085
Teacher and nurse training courses	14 090	22 140	29 288
Other non-degree courses	} 27 530	15 480	18 844
Degree courses		36 629	60 564
Total	44 920	91 091	153 076

**Table 23 Population Aged 15 and Over Having Technical or Tertiary Education by Field of Education; 1981 and 1986**

<i>Field of Education</i>	<i>1981</i>		<i>1986</i>	
		<i>%</i>		<i>%</i>
Arts and social science	55 619	21.5	72 079	18.5
Pure science	18 564	7.2	25 739	6.6
Education	29 305	11.4	33 516	8.6
Business, commercial and computer studies	49 893	19.4	94 045	24.3
Medical and health related studies	23 400	9.1	33 845	8.7
Architecture and construction engineering	21 511	8.3	30 100	7.7
Mechanical, electrical, electronic and marine engineering	36 340	14.1	56 441	14.5
Textile, design and other industrial technology	8 603	3.3	17 136	4.4
Other vocational studies	14 588	5.7	25 879	6.7
<b>Total</b>	<b>257 823</b>	<b>100.0</b>	<b>388 780</b>	<b>100.0</b>



# Economic Characteristics

## Introduction

The 'labour force' approach was adopted in all postwar censuses in Hong Kong to collect information on the economic activity of the population. This approach considers the economically active population, i.e. 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 seeking 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, employers and unpaid workers in social or religious organizations 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.

## Growth of the labour force

The labour force increased by 1.6 million (or 132 per cent) during the last 25 years, from a total of 1.2 million in 1961 to 2.8 million in 1986. The number of males in the labour force in 1986 was twice that in 1961. The number of females, on the other hand, increased by two times over 1961. (Table 24)

The total population grew at an annual rate of 2.2 per cent over the period 1961–86, but the population aged 15 and above increased at a higher rate of 3.3 per cent. The labour force, which depends on the size of the population of working age (those aged between 15 and 64), grew at an annual rate of 3.4 per cent. The number of males in the labour force increased at an average of 2.8 per cent a year; the number of females, at 4.6 per cent a year. These differential growth rates are reflective of changes both in the sex-age structure of the population and in the levels of labour participation for males and females in the respective periods. (Table 25)

The increase in the average annual growth rate of the labour force from 3.2 per cent over the period 1961–76 to 5.9 per cent over the period 1976–81 can be explained mainly by the large inflow of immigrants during the years 1978–80. With the inflow of immigrants largely subdued, the growth of the labour force over the last five years was much reduced, only at an average annual rate of 1.9 per cent. (Table 25)

## Sex and age distribution of the labour force

The general trend over the last 10 years has been for the proportions of both males and females in the labour force in the age groups 15–19 and 45 and above to decrease and for the proportion of those in the age group 25–34 to increase. The decrease for the age group 15–19 and the increase for the age group 25–34 were more marked for females than for males. Overall, 20 per cent of males in the labour force were aged under 25 in 1986, compared with 25 per cent in 1976; for females, the figures were 29 per cent and 42 per cent respectively. The results of these changes in the age distribution of the male and female labour force were a moderate decrease in the median age of male workers and an increase in the median age of female workers, with the median age of the labour force as a whole remaining effectively unchanged over the period. (Tables 26, 27)

The more substantial increase in the female labour force over the period 1976–86, 58 per cent as against 36 per cent for the male labour force, had brought about a significant change in the sex ratio of the labour force. The sex ratio showed a steady decrease over the 10-year period; the decrease was more significant between 1981 and 1986 than between 1976 and 1981. (Table 27)

## Labour force participation rates

The labour force participation rate for males remained effectively unchanged, at about 81 per cent, during the period 1976–86, falling back from a peak in 1981. The high male participation rate in 1981 can largely be explained by the significant inflow of young male immigrants (there was a higher tendency among these immigrants to seek work). The labour force participation rate for females, on the other hand, increased steadily from 43.6 per cent in 1976 to 51.2 per cent in 1986. The more significant increase in the rate between 1976 and 1981 was partly due to the inflow of young female immigrants (again who had a higher tendency to seek work) before the change of immigration policy; the increase over the last five years was mainly due to increasing female participation in the labour force. The male participation rate was about 30 percentage points higher than the female rate. (Table 28)

There have been changes in the sex-age structure of the population (those aged 15 and above) over the years 1976–86. The effect of this demographic factor has to be eliminated in order to show the actual change in labour participation of the population over the same period. Standardized rates based on the age and sex distribution of 1986 have been computed. The results showed that the effect of changes in the male population age structure counteracted that of changes in the level of male participation, leaving the labour force participation rate almost unchanged over the period. The crude rate would have decreased by 2 per cent due to lower participation if not for the change in the population age structure. For females, changes in the population age structure, on the contrary, had a dampening (albeit slight) effect on the rate but changes in the level of labour participation, being so significant, had the effect of converting the change in the rate into one of a substantial increase. (Tables 28, 29)

The general pattern is for the participation rate to increase from a low level in the age group 15–19 to the level in the age group 35–44 for males and to the level in the age group 20–24 for females; thereafter the rate decreased rapidly with age. (Table 30)

Changes in male and female participation in the labour force were different for different ages. The participation rate for males in the age group 15–19 decreased from 43.0 per cent in 1976 to 37.9 per cent in 1986 due to the increase in school attendance. The male participation rate for those at ages 55 and above also showed a significant decrease, mainly between 1981 and 1986; this downward trend in the rate was possibly attributable to earlier retirement. The male participation rate for the main working age group remained relatively unchanged over the last 10 years. (Table 30)

The participation rate for females at ages 20–54 showed varying degrees of increase over the years 1976–86, the highest rate of increase being recorded for the age group 25–34. Factors underlying the increase in the female participation rate included changing attitudes towards women's roles in society, the expansion of the service sector, the postponement of marriage, the continuous decline in fertility and increasing tendency of women to re-enter the labour force after completing childbearing. The female participation rate for the age group 15–19, on the other hand, decreased significantly from 47.2 per cent to 33.6 per cent. This was mainly associated with the improvement in education opportunities and longer years of schooling. (Table 30)

### **Activity status**

Over the last 10 years, there was a significant change in the distribution of activity status of the labour force. In 1976, 11 per cent of the labour force were self-employed persons and unpaid family workers; in 1986, the figure was 8 per cent. This suggests a gradual contraction of small business in the traditional sector in the form of individual and family units. The proportion of employees in the labour force was higher in 1981 and also in 1986 than in 1976, a difference of 4.0 and 2.7 percentage points respectively. The proportion of employers in the labour force increased steadily from 3 per cent to 4 per cent. (Table 31)

### **Educational attainment of working population**

Educational attainment of the working population has improved markedly over the last 10 years, particularly between 1976 and 1981. The proportion of the working population who had no schooling decreased significantly from 14 per cent in 1976 to 8 per cent in 1986, whereas the proportion of those having secondary or higher education increased from 41 per cent to 63 per cent. (Table 32)

### **Industrial distribution of working population**

Over the last 10 years, there was a significant decrease in the proportion of the working population in manufacturing industries; but an overall increase in respect of construction, wholesale and retail trade, restaurants and hotels and services industries. In 1986, 36 per cent of the working population were in manufacturing industries; 22 per cent were in wholesale and retail trade, restaurants and hotels; and one-third were in services industries. The industrial pattern emerged through the years showed that there was a continuous shift in employment, from primary and secondary industries to tertiary industries. (Table 33)

### **Occupational distribution of working population**

Changes in the industrial composition of the working population over the last 10 years have significantly altered the occupational distribution of workers. In 1976, 52 per cent of workers were in production occupations; in 1986, the figure was 43 per cent. The proportion of those in professional, administrative and managerial occupations has risen from 8 per cent to 12 per cent. The proportions in clerical and service occupations have also increased appreciably. (Table 34)

## Hours of work

A substantial proportion of the working population worked 45–54 hours per week. In 1976, 39 per cent of male employees and 49 per cent of female employees reported that they had worked this number of hours. In 1986, the same proportion of male workers but a significantly lower proportion of female workers reported so. There was a smaller proportion of people in 1986 than in 1976 working 55 hours or more during the week, a decrease from 34 per cent to 31 per cent for males and from 20 per cent to 16 per cent for females. The median hours of work figure for 1976 was 51 for males and 48 for females; this decreased to 48 and 45 respectively for 1986. The decrease over the period 1981–86 was more significant. (Tables 35, 36)

Male workers had longer hours than female workers. The median hours of work figure for males was 3 hours higher than the corresponding figure for females. For both males and females, the median hours of work figure generally increased with age except for those at ages 15–19. Workers in this young age group, particularly female workers, tended to have somewhat longer hours than those in the age group 20–39. There was a steady decrease in the median hours of work figure for all ages between 1976 and 1986; the rate of decrease was significantly faster for females at ages 40 and above. (Table 36)

## Income from main employment

Income from employment for workers increased substantially over the years 1976–86. In 1976, 93 per cent of workers earned less than \$2,000 a month; in 1986, the figure was 28 per cent. The comparisons, however, do not take into account the depreciation in the value of money and to remedy this, the 1976 and 1981 income figures are adjusted for price changes during the period 1976–86. The revised distribution for 1976 showed that the proportion of workers earning less than \$2,000 a month was 62 per cent, which decreased to 28 per cent in 1986. Concurrently, the proportion of those earning \$2,000 or more a month was nearly doubled between 1976 and 1986; the increase was more substantial for the higher income groups. In 1986, not far short of half of the working population had an income of \$2,000 to under \$4,000. (Table 37)

In 1976, the median monthly earnings of workers, calculated in 1986 prices, were \$1,697, compared with \$2,310 for 1981 and \$2,573 for 1986, indicating that real income from main employment grew at an average annual rate of 7.0 per cent between 1976 and 1981 and at a rate of 2.2 per cent between 1981 and 1986. (Table 38)

There exists a relationship between the level of income and age. Generally, the level of income shows a rapid increase in early years of age (the increase being more substantial for males than for females), reaching a peak around ages 30–39, and then a decrease thereafter at an increasing rate. Such a relationship remained roughly unchanged over the years 1976–86. Female workers in all ages enjoyed a higher income growth than their counterparts during this period. Overall, the median monthly earnings for females, calculated in 1986 prices, increased by 68 per cent from \$1,278 in 1976 to \$2,143 in 1986; the median monthly earnings for males for 1986 increased by 56 per cent over 1976. For both sexes, the highest rate of increase was recorded for the age group 30–39. (Table 38)

Despite the more rapid income growth for females over the 10-year period, the median monthly earnings were still considerably higher for males than for females. Such disparity in the level of income between a male worker and a female worker was exhibited in all ages, the rate of disparity being highest for the age group 40–49. The difference for most ages, however, has been significantly reduced over the last 10 years. (Table 38)

Table 24 Total Population and Economically Active Population by Sex; 1961–1986

<i>Sex and Year</i>	<i>Total population</i>	<i>Persons aged 15 and over</i>	<i>Economically active</i>	<i>Economically inactive</i>
<b>Male</b>				
1961	1 607 779	943 764	852 850	90 914
1971	2 000 602	1 280 482	1 084 355	196 127
1976	2 251 060	1 570 650	1 265 180	305 470
1981	2 604 168	1 961 803	1 618 389	343 414
1986	2 772 464	2 122 826	1 716 411	406 415
<b>Female</b>				
1961	1 521 869	908 849	334 708	574 141
1971	1 936 028	1 248 244	534 627	713 617
1976	2 151 930	1 507 080	657 320	849 760
1981	2 382 392	1 787 250	885 415	901 835
1986	2 623 533	2 026 224	1 037 437	988 787
<b>Both sexes</b>				
1961	3 129 648	1 852 613	1 187 558	665 055
1971	3 936 630	2 528 726	1 618 982	909 744
1976	4 402 990	3 077 730	1 922 500	1 155 230
1981	4 986 560	3 749 053	2 503 804	1 245 249
1986	5 395 997	4 149 050	2 753 848	1 395 202

Table 25 Average Annual Growth Rates of Population and Economically Active Population by Sex; 1961–1986

<i>Sex and Year</i>	<i>Total population</i>	<i>Persons aged 15 and over</i>	<i>Economically active</i>	<i>Economically inactive</i>
<b>Male</b>				
1961–1971	2.2	3.1	2.4	8.0
1971–1976	2.2	3.8	2.9	8.5
1976–1981	3.2	5.0	5.5	2.6
1981–1986	1.3	1.6	1.2	3.4
<b>Female</b>				
1961–1971	2.4	3.2	4.8	2.2
1971–1976	2.0	3.5	3.9	3.3
1976–1981	2.2	3.8	6.7	1.3
1981–1986	1.9	2.5	3.2	1.9
<b>Both sexes</b>				
1961–1971	2.3	3.2	3.1	3.2
1971–1976	2.1	3.7	3.2	4.5
1976–1981	2.8	4.4	5.9	1.7
1981–1986	1.6	2.0	1.9	2.3

Table 26 Economically Active Population by Sex and Age; 1976, 1981 and 1986

<i>Sex and Age Group</i>	<i>1976</i>		<i>1981</i>		<i>1986</i>	
		%		%		%
<b>Male</b>						
15-19	117 120	9.3	132 184	8.2	89 068	5.2
20-24	196 740	15.6	279 603	17.3	251 714	14.7
25-34	306 700	24.1	470 020	29.0	552 532	32.2
35-44	253 790	20.1	269 409	16.6	340 086	19.8
45-54	234 210	18.5	266 353	16.5	266 605	15.5
55 and over	156 620	12.4	200 820	12.4	216 406	12.6
<b>Total</b>	<b>1 265 180</b>	<b>100.0</b>	<b>1 618 389</b>	<b>100.0</b>	<b>1 716 411</b>	<b>100.0</b>
<b>Female</b>						
15-19	122 490	18.6	115 650	13.1	72 817	7.0
20-24	152 080	23.1	220 204	24.9	231 242	22.3
25-34	125 260	19.1	229 326	25.8	344 431	33.3
35-44	93 180	14.2	112 378	12.7	173 397	16.7
45-54	91 400	13.9	111 766	12.6	118 701	11.4
55 and over	72 910	11.1	96 091	10.9	96 849	9.3
<b>Total</b>	<b>657 320</b>	<b>100.0</b>	<b>885 415</b>	<b>100.0</b>	<b>1 037 437</b>	<b>100.0</b>
<b>Both sexes</b>						
15-19	239 610	12.5	247 834	9.9	161 885	5.9
20-24	348 820	18.1	499 807	20.0	482 956	17.5
25-34	431 960	22.6	699 346	27.9	896 963	32.6
35-44	346 970	18.0	381 787	15.2	513 483	18.6
45-54	325 610	16.9	378 119	15.1	385 306	14.0
55 and over	229 530	11.9	296 911	11.9	313 255	11.4
<b>Total</b>	<b>1 922 500</b>	<b>100.0</b>	<b>2 503 804</b>	<b>100.0</b>	<b>2 753 848</b>	<b>100.0</b>

Table 27 Median Age and Sex Ratios of Economically Active Population by Sex; 1976, 1981 and 1986

<i>Sex and Sex Ratios</i>	<i>1976</i>	<i>1981</i>	<i>1986</i>
Male	35.5	33.3	34.3
Female	28.1	28.8	30.3
Both sexes	33.1	31.8	32.9
Sex ratios*	1 925	1 828	1 654

\* Number of males per 1 000 females.

**Table 28 Labour Force Participation Rates (LFPR) by Sex; 1976, 1981 and 1986**

(Number of economically active persons per 100 population aged 15 and over)

Year	Crude LFPR		Standardized LFPR*	
	Male	Female	Male	Female
1976	80.6	43.6	82.5	43.1
1981	82.5	49.5	83.7	49.3
1986	80.9	51.2	80.9	51.2

\* Using the 1986 age distribution of the male and female population as standard.

**Table 29 Change in Crude Labour Force Participation Rates (LFPR) by Component; 1976–1986**

Year	Net change in crude LFPR (per cent*)		Attributable to variations in age structure (per cent*)		Attributable to variations in age-specific LFPR (per cent*)	
	Male	Female	Male	Female	Male	Female
1976–1981	+2.4	+13.6	+0.9	-1.0	+1.5	+14.6
1981–1986	-2.0	+3.4	+1.4	-0.4	-3.4	+3.8

\* Per cent derived from unrounded figures in Table 28.

**Table 30 Labour Force Participation Rates by Age and Sex; 1976, 1981 and 1986**

(Number of economically active persons per 100 population)

Age Group	1976		1981		1986	
	Male	Female	Male	Female	Male	Female
15–19	43.0	47.2	45.2	42.6	37.9	33.6
20–24	87.8	71.8	90.9	79.7	88.3	83.7
25–34	97.7	47.8	98.3	56.8	97.6	64.8
35–44	98.4	42.9	98.6	53.4	97.7	57.9
45–54	95.0	39.6	96.0	46.7	94.1	49.1
55 and over	61.2	22.4	60.3	24.9	53.4	21.0
Overall	80.6	43.6	82.5	49.5	80.9	51.2

Table 31 Economically Active Population by Activity Status; 1976, 1981 and 1986

<i>Activity Status</i>	<i>1976</i>		<i>1981</i>		<i>1986</i>	
		%		%		%
Self-employed	166 250	8.6	146 806	5.9	172 876	6.3
Employers	54 650	2.8	89 767	3.6	111 613	4.1
Employees	1 504 850	78.3	2 062 223	82.3	2 234 715	81.0
Outworkers	68 870	3.6	55 688	2.2	48 727	1.8
Unpaid family workers*	51 320	2.7	37 589	1.5	49 078	1.8
Student workers	7 200	0.4	11 994	0.5	26 264	1.0
Unemployed persons	69 360	3.6	99 737	4.0	110 575	4.0
Total	1 922 500	100.0	2 503 804	100.0	2 753 848	100.0

\* Figures for 1976 and 1981 include voluntary workers in social or religious organizations.

Table 32 Working Population by Educational Attainment; 1976, 1981 and 1986

<i>Educational Attainment</i>	<i>1976</i>		<i>1981</i>		<i>1986</i>	
		%		%		%
No schooling/Kindergarten	259 070	14.0	256 718	10.7	214 516	8.1
Primary	823 670	44.7	883 923	36.9	771 123	29.2
Lower secondary	279 130	15.1	460 320	19.1	527 760	20.0
Upper secondary	342 160	18.5	529 741	22.0	709 097	26.8
Matriculation	52 370	2.8	111 244	4.6	187 208	7.1
Tertiary: Non-degree courses	21 890	1.2	66 041	2.7	92 603	3.5
Tertiary: Degree courses	68 520	3.7	96 080	4.0	140 966	5.3
Total	1 846 810	100.0	2 404 067	100.0	2 643 273	100.0

Table 33 Working Population by Industry; 1976, 1981 and 1986

<i>Industry</i>	<i>1976</i>		<i>1981</i>		<i>1986</i>	
		%		%		%
Agriculture and fishing	47 570	2.6	47 004	2.0	47 702	1.8
Mining and quarrying	1 020	0.1	1 556	0.1	812	*
Manufacturing	829 240	44.8	990 365	41.3	946 653	35.8
Electricity, gas and water	9 710	0.5	14 669	0.6	17 724	0.7
Construction	103 670	5.6	185 999	7.7	164 268	6.2
Wholesale and retail trade, restaurants and hotels	359 900	19.5	461 489	19.2	589 918	22.3
Transport, storage and communication	135 970	7.4	181 368	7.5	210 367	8.0
Financing, insurance, real estate and business services	62 050	3.4	115 870	4.8	169 967	6.4
Services	284 460	15.4	375 703	15.6	486 167	18.4
Unclassifiable	13 220	0.7	30 044	1.2	9 695	0.4
Total	1 846 810	100.0	2 404 067	100.0	2 643 273	100.0

\* Less than 0.05%

Table 34 Working Population by Occupation; 1976, 1981 and 1986

<i>Occupation</i>	<i>1976</i>		<i>1981</i>		<i>1986</i>	
		%		%		%
Professional, technical and related workers	101 930	5.5	143 700	6.0	220 528	8.3
Administrative and managerial workers	39 930	2.2	64 106	2.7	95 417	3.6
Clerical and related workers	179 780	9.7	293 905	12.2	385 587	14.6
Sales workers	213 350	11.6	247 924	10.3	309 059	11.7
Service workers	274 600	14.8	374 093	15.6	429 389	16.2
Agricultural workers and fishermen	49 000	2.7	50 676	2.1	50 150	1.9
Production and related workers, transport equipment operators and labourers	963 230	52.1	1 212 545	50.4	1 143 280	43.3
Armed forces and unclassifiable	24 990	1.4	17 118	0.7	9 863	0.4
Total	1 846 810	100.0	2 404 067	100.0	2 643 273	100.0

Table 35 Employees by Sex and Hours of Work per Week; 1976, 1981 and 1986

<i>Sex and Hours of Work</i>	<i>1976*</i>		<i>1981*</i>		<i>1986</i>	
		<i>%</i>		<i>%</i>		<i>%</i>
<b>Male</b>						
Under 15	41 230	4.3	17 759	1.3	40 367	2.9
15-24	18 930	2.0	25 891	2.0	26 110	1.9
25-34	24 530	2.6	31 840	2.4	33 555	2.4
35-44	168 200	17.5	263 013	20.0	318 685	22.9
45-54	376 350	39.2	543 228	41.3	544 132	39.1
55-64	173 520	18.1	252 359	19.2	230 855	16.6
65-74	86 140	9.0	106 896	8.1	119 262	8.6
75 and over	70 050	7.3	75 458	5.7	77 317	5.6
<b>Total</b>	<b>958 950</b>	<b>100.0</b>	<b>1 316 444</b>	<b>100.0</b>	<b>1 390 283</b>	<b>100.0</b>
<b>Female</b>						
Under 15	26 260	5.2	14 264	1.9	30 478	3.6
15-24	11 940	2.4	28 054	3.8	31 533	3.7
25-34	15 920	3.2	28 216	3.8	34 433	4.1
35-44	104 910	20.8	204 902	27.9	286 588	33.9
45-54	245 270	48.7	331 217	45.1	330 175	39.1
55-64	56 050	11.1	82 685	11.2	76 650	9.1
65-74	20 220	4.0	24 879	3.4	32 828	3.9
75 and over	23 340	4.6	21 326	2.9	21 747	2.6
<b>Total</b>	<b>503 910</b>	<b>100.0</b>	<b>735 543</b>	<b>100.0</b>	<b>844 432</b>	<b>100.0</b>

\* Excluding farmers and fishermen.

Table 36 Median Hours of Work per Week of Employees by Age and Sex; 1976, 1981 and 1986

<i>Age Group</i>	<i>1976*</i>		<i>1981*</i>		<i>1986</i>	
	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>	<i>Male</i>	<i>Female</i>
15-19	51	49	50	48	48	46
20-29	50	47	50	46	47	45
30-39	51	47	50	46	48	45
40-49	52	50	51	48	49	46
50-59	51	52	51	50	49	47
60 and over	52	54	52	51	49	47
<b>Overall</b>	<b>51</b>	<b>48</b>	<b>50</b>	<b>47</b>	<b>48</b>	<b>45</b>

\* Excluding farmers and fishermen.

Table 37(a) **Working Population\* by Monthly Income from Main Employment; 1976, 1981 and 1986**

(Income in current prices)

<i>Monthly Income from Main Employment</i>	1976		1981		1986	
		%		%		%
Under \$1 000	1 288 590	71.7	442 503	18.7	165 219	6.4
\$1 000–\$1 999	377 550	21.0	1 170 899	49.6	564 612	21.8
\$2 000–\$2 999	68 880	3.8	431 847	18.2	770 651	29.8
\$3 000–\$3 999	28 650	1.6	156 121	6.6	477 997	18.4
\$4 000–\$4 999	8 220	0.5	62 399	2.6	216 535	8.3
\$5 000–\$5 999	8 360	0.5	32 238	1.4	120 132	4.6
\$6 000–\$7 999	7 370	0.4	25 638	1.1	113 535	4.4
\$8 000–\$9 999	3 190	0.2	12 950	0.5	55 339	2.1
\$10 000 and over	5 940	0.3	31 883	1.3	110 175	4.2
<b>Total</b>	<b>1 796 750</b>	<b>100.0</b>	<b>2 366 478</b>	<b>100.0</b>	<b>2 594 195</b>	<b>100.0</b>

Table 37(b) **Working Population\* by Monthly Income from Main Employment; 1976, 1981 and 1986**

(Income in 1986 prices)

<i>Monthly Income from Main Employment</i>	1976		1981		1986	
		%		%		%
Under \$1 000	292 450	16.3	183 118	7.7	165 219	6.4
\$1 000–\$1 999	828 530	46.0	731 011	30.9	564 612	21.8
\$2 000–\$2 999	387 820	21.6	671 271	28.4	770 651	29.8
\$3 000–\$3 999	114 740	6.4	368 718	15.6	477 997	18.4
\$4 000–\$4 999	60 430	3.4	153 765	6.5	216 535	8.3
\$5 000–\$5 999	35 240	2.0	87 867	3.7	120 132	4.6
\$6 000–\$7 999	33 650	1.9	76 057	3.2	113 535	4.4
\$8 000–\$9 999	14 980	0.8	33 201	1.4	55 339	2.1
\$10 000 and over	28 910	1.6	61 470	2.6	110 175	4.2
<b>Total</b>	<b>1 796 750</b>	<b>100.0</b>	<b>2 366 478</b>	<b>100.0</b>	<b>2 594 195</b>	<b>100.0</b>

\* Excluding unpaid family workers and voluntary workers in social or religious organizations. The latter were classified as economically inactive in 1986.

Table 38(a) **Median Monthly Income from Main Employment of Working Population\* by Sex and Age; 1976, 1981 and 1986**

(Median income in current prices)

<i>Sex and Age Group</i>	<i>1976</i>	<i>1981</i>	<i>1986</i>
<b>Male</b>			
15-19	519	1 105	1 750
20-29	842	1 732	2 859
30-39	1 039	2 208	3 653
40-49	973	2 067	3 385
50-59	853	1 751	2 885
60 and over	709	1 328	2 227
Overall	858	1 801	3 067
<b>Female</b>			
15-19	498	1 072	1 732
20-29	655	1 312	2 316
30-39	573	1 254	2 368
40-49	527	1 088	2 007
50-59	526	1 007	1 785
60 and over	449	793	1 447
Overall	559	1 165	2 143
Both sexes	742	1 516	2 573

Table 38(b) **Median Monthly Income from Main Employment of Working Population\* by Sex and Age; 1976, 1981 and 1986**

(Median income in 1986 prices)

<i>Sex and Age Group</i>	<i>1976</i>	<i>1981</i>	<i>1986</i>
<b>Male</b>			
15-19	1 187	1 684	1 750
20-29	1 926	2 640	2 859
30-39	2 376	3 365	3 653
40-49	2 225	3 150	3 385
50-59	1 951	2 669	2 885
60 and over	1 621	2 024	2 227
Overall	1 962	2 745	3 067
<b>Female</b>			
15-19	1 139	1 634	1 732
20-29	1 498	1 999	2 316
30-39	1 310	1 911	2 368
40-49	1 205	1 658	2 007
50-59	1 203	1 535	1 785
60 and over	1 027	1 209	1 447
Overall	1 278	1 775	2 143
Both sexes	1 697	2 310	2 573

\* Excluding unpaid family workers and voluntary workers in social or religious organizations. The latter were classified as economically inactive in 1986.



# Household Characteristics

## Introduction

There are two ways in which a group of people living together in a living quarter can be described. One is 'family' which is defined to include people related by kinship, adoption or marriage; the other is 'household' which refers to people sleeping under the same roof and eating together. The two terms are conceptually different and, therefore, not interchangeable although in many instances, the composition of the family coincides with that of the household. The 'household' concept was adopted in all past censuses to facilitate enumeration.

Two broad categories of households are classified in a population census, namely collective households (which include people living in institutions such as old people's homes, hostels, staff quarters in factories etc.) and domestic households (which include any group of people, whether related or not, sleeping under the same roof and sharing the food and the expenses of the household, or a person who was solely responsible for preparing his or her own meals). In Hong Kong in 1986, there were 80 000 people living in collective households and 5.3 million people, or 99 per cent of the total population, in domestic households. The analysis and tables given in this chapter refer to domestic households only.

## Household growth and household composition

There were 687 209 households in 1961, 857 008 in 1971 and 1 452 576 in 1986. Thus, the intercensal increase in households was 169 799 between 1961 and 1971 (an average annual rate of increase of 2.2 per cent) and 595 568 between 1971 and 1986 (an average annual rate of increase of 3.6 per cent). The rate of increase accelerated throughout the 1970's and decelerated only in the last five years, following a decline in the population growth over the same period. (Table 39)

A household, by the definition used in the 1986 By-Census, may be a compound of more than one family, depending on the degree of blood relation and the number of marriage unions of members within the household. The analysis of household composition, by focusing on marital relationships, therefore, shows the structure of the household in terms of (a) the number of family nuclei (i.e. married couples) and (b) the relationship between the family nucleus and other related household members.

Household composition classifies the household by family type. A household may be of an unextended nuclear family type or of an extended nuclear family type. Households of an unextended nuclear family type consist normally of a husband and wife with or without their unmarried children. Households of a vertically extended family type consist of the parents and their married sons and of a horizontally extended family type, of a family nucleus with other related household members of the same generation.

A word of caution is in order when comparing the household composition data between censuses. For the 1986 By-Census household composition was derived based on the relationship of people who usually lived in the household, whereas for the 1976 By-Census and the 1981 Census it was based on the relationship of those who were found to be in the household on the census reference night. The change from a *de facto* basis to a *de jure* basis in the measure of household composition had the most impact on the trend of 'one person' households.

Well over half of households consisted of a husband and wife with or without their unmarried children. There were relatively more single nuclear families and less vertically extended nuclear families in 1976 than in 1981. However, over the last five years, the trend seemed to have reverted to the position in 1976. The proportions of households consisting of one single nuclear family with other related household members of the same generation and of two or more nuclear families, on the other hand, had remained stable at 2 per cent and 6 per cent respectively throughout the period 1976–86. But the proportion of one-person households decreased from 15 per cent in both 1976 and 1981 to 13 per cent in 1986. The decrease was mainly due to the change from a *de facto* basis to a *de jure* basis in the measure of household composition. (Table 40)

## Household size

Between 1976 and 1986, the total population (excluding people in collective households) increased by 23 per cent, from 4 316 830 to 5 316 120, whereas the number of domestic households increased by 42 per cent. This differential growth was reflected in a significant decrease in the average size of households, from 4.2 in 1976 to 3.7 in 1986. The average household size for each family type of households also decreased but at a different rate. Larger decreases were experienced by households of a vertically extended family type and of two or more nuclear families. In 1986, the average household size for these two categories of households was 4.9 and 6.4 respectively; in 1976, the figures were 6.0 and 7.5. The average household size for households of an unextended nuclear family type decreased from 4.6 to 3.8 over the same period. (Table 41)

Contributing to the decrease in the average household size was the change in the household size distribution. The general trend over the last 10 years has been for more small and medium sized households to replace large sized households. The proportion of households with two to five persons increased from 56 per cent in 1976 to 69 per cent in 1986, whereas the proportion of those with six or more persons decreased from 29 per cent to 16 per cent. On the other hand, the proportion of single-person households remained stable at about 15 per cent. (Table 42)

### **Number of children in household**

Following a continuous decline in fertility in Hong Kong since the late 1960's and a tremendous growth of households over the last 15 years, the number of children aged below 15 in the household has decreased significantly. In 1976, 44 per cent of households had none of children under 15; in 1986, the figure was 54 per cent. The increase was even larger among households with five or more persons. Conversely, there was only a small increase in the proportion of households having one or two children under 15 but a large decrease in the proportion of those having three or more. The average number of children under 15 per household decreased from 1.3 in 1976 to 1.0 in 1981 and further to 0.9 in 1986. (Table 43)

### **Number of working members in household**

For all households, the average number of working members per household during the last 10 years fluctuated around the level of 1.8, but the dependency ratio of the household (defined as being the ratio of non-working members to working members) decreased quite significantly from 1.3 to 1.0 due to the decrease in the average number of persons in the household. Apparently, there was a direct relationship between the average number of working members and household size. For small and medium sized households (two to five persons), the average number of working members increased with household size, but at a smaller rate; thus, the dependency ratio of the household increased with household size too. For example, in 1986 for households with five persons, each working member had to support 1.3 non-working members, as against 0.9 for households with three persons. For large sized households, the rate of increase in the average number of working members was such that the dependency ratio remained effectively unchanged with household size. (Table 44)

### **Headship**

For the purpose of the census enumeration, each household must have a head. The head was defined as being a person acknowledged as such by other members of the household. The concept of head of the household is essential for the analysis of household formation. Over the last 10 years, there was a significant change in the headship pattern. In 1976, 25 per cent of household heads were aged 40–49. This proportion was highest in their age distribution. In 1981, the mode levelled off to some extent, resulting in an equal proportion of 21 per cent for the age groups 30–39 and 50–59. By 1986, the mode had shifted to the younger age group 30–39. Between 1976 and 1986, there was a remarkable increase in the proportion of heads, who were aged 30–39, of households of an unextended nuclear family type. This change indicates that there was a general tendency among young married couples to leave their parents after marriage to form a separate household. For households of a vertically extended nuclear family type, the headship had shifted significantly to the elderly members of the household. In 1976, 13 per cent of heads of these households were aged 60 and above; in 1986, the figure was 28 per cent, which increased more than twofold. (Table 45)

There were no marked changes in the overall pattern of the age-specific headship rates (defined as being the proportion of household heads to population in each age group) in the last 15 years. Below age 40, the rate increased rapidly with age, but between 40 and 59 it increased only gradually. After age 60 it decreased. The highest rate was found among people aged 50–59. Some 55 per cent to 58 per cent of them were heads. For young adults aged between 25 and 34, the rate ranged from 24 per cent to 42 per cent. (Table 46)

The headship rates for different age groups varied differently between 1971 and 1986. The rates for the age group 15–24 showed a slight decrease over the 15-year period, but falling from a much higher level in 1976 and 1981. The rates for the age group 25–39 were fairly stable between 1971 and 1976, but after that they showed a steady decrease. The decrease in the rates for 1981 under 1976 can largely be explained by the significant inflow of immigrants (who had a low headship rate) during the years 1978–80, whereas the decrease in the rates for 1986 under 1981 was partly due to changes in the age distribution and partly due to changes in nuptiality. There were marked increases in the proportion of the population aged 25–39 and in the proportion never married of those aged 25–34 during the last five years. Among the older population, the rates for the age group 40–54 varied only slightly, but the rates for the age group 55 and above showed an appreciable increase over 1971; the increase was particularly significant for the age group 65 and above. Undoubling was the major reason for the increase in these rates and it occurred mainly as a result of the heads of families, who were 30 to 44 years of age, leaving to form a separate household. (Table 46)

## Household income

The income of households increased substantially over the years 1976–86. In 1976, 97 per cent of households received incomes under \$6,000 a month; in 1986, the figure was 59 per cent. The comparisons, however, do not take into account the depreciation in the value of money. Discounting the increase in consumer prices between 1976 and 1986, the proportion of households receiving incomes under \$6,000 a month in 1976 was 82 per cent, which decreased to 59 per cent in 1986. Concurrently, the proportion of those receiving \$10,000 or more a month increased nearly threefold. And 23 per cent of households had an income in 1986 of \$6,000 to under \$10,000 a month, compared with only 12 per cent 10 years earlier. (Table 47)

In 1976, the median monthly income of households, calculated in 1986 prices, was \$3,259, compared with \$4,503 for 1981 and \$5,160 for 1986, indicating that real income for households increased by 58 per cent over the period, or grew at an average annual rate of 7.3 per cent during the first half of the period and at a rate of 2.8 per cent during the latter half. Among all different types of households, those of two or more nuclear families had higher earning power, hence having the highest median monthly income, followed by those of one horizontally extended nuclear family. However, households of one unextended nuclear family and those of one vertically extended nuclear family had more rapid income growth than any of the other types of households. (Table 48)

There exists a direct relationship between the level of household income and household size because the larger the household size, the larger the number of working household members. In 1986, the median monthly income of households with 10 or more persons, at \$11,427, was more than four and half times of that for one-person households, at \$2,444. On the other hand, income growth had permeated all households during the years 1976–86, but the rate of increase varied between households of different sizes. In 1986 prices, the median monthly income of one-person households increased by 51 per cent over the period; that for households with nine persons was nearly doubled. (Table 49)

Table 39 Total Domestic Households; 1961–1986

<i>Year</i>	<i>Domestic households</i>	<i>Absolute increase</i>	<i>Average annual growth rate (per cent)</i>
1961	687 209		
1971	857 008	169 799	2.2
1976	1 024 680	167 672	3.4
1981	1 244 738	220 058	4.3
1986	1 452 576	207 838	3.1

Table 40 Domestic Households by Household Composition; 1976, 1981 and 1986

<i>Household Composition</i>	<i>1976</i>		<i>1981</i>		<i>1986</i>	
		<i>%</i>		<i>%</i>		<i>%</i>
One person	147 440	14.8	189 087	15.2	186 841	12.9
One unextended nuclear family	601 790	60.1	677 109	54.4	860 067	59.2
One vertically extended nuclear family	93 540	9.4	168 690	13.6	173 107	11.9
One horizontally extended nuclear family	19 770	2.0	30 318	2.4	31 173	2.1
Two or more nuclear families	60 260	6.0	78 225	6.3	89 837	6.2
Non-family-nuclear households	76 590	7.7	101 309	8.1	99 798	6.9
Households composed of non-usual household members only	..	..	..	..	11 753	0.8
Total	999 390	100.0	1 244 738	100.0	1 452 576	100.0

Table 41 **Average Household Size by Household Composition; 1976, 1981 and 1986**

<i>Household Composition</i>	<i>1976</i>	<i>1981</i>	<i>1986</i>
One person	1.0	1.0	1.0
One unextended nuclear family	4.6	4.1	3.8
One vertically extended nuclear family	6.0	5.5	4.9
One horizontally extended nuclear family	5.4	5.1	4.4
Two or more nuclear families	7.5	7.3	6.4
Non-family-nuclear households	2.9	2.8	2.4
Households composed of non-usual household members only	..	..	2.0
Overall	4.2	3.9	3.7

Table 42 **Domestic Households by Household Size; 1976, 1981 and 1986**

<i>Household Size</i>	<i>1976</i>		<i>1981</i>		<i>1986</i>	
		%		%		%
One	147 440	14.8	189 087	15.2	214 921	14.8
Two	140 720	14.1	191 841	15.4	237 177	16.3
Three	134 660	13.5	191 995	15.4	251 507	17.3
Four	146 590	14.7	213 908	17.2	299 050	20.6
Five	138 430	13.8	177 618	14.3	217 838	15.0
Six	115 610	11.6	126 247	10.1	125 021	8.6
Seven	79 360	7.9	74 971	6.0	59 869	4.1
Eight	48 850	4.9	39 996	3.2	26 277	1.8
Nine	24 360	2.4	19 497	1.6	11 303	0.8
Ten and over	23 370	2.3	19 578	1.6	9 613	0.7
Total	999 390	100.0	1 244 738	100.0	1 452 576	100.0

**Table 43 Percentage Distribution of Domestic Households by Household Size and Number of Children Aged Under 15; 1976, 1981 and 1986**

<i>Year and Household Size</i>	<i>Number of Children Aged Under 15</i>				<i>Total</i>
	<i>Zero</i>	<i>One</i>	<i>Two</i>	<i>Three and over</i>	
<b>1976</b>					
Under three	96.0	3.8	0.2	..	100.0
Three	47.9	46.1	5.8	0.2	100.0
Four	29.7	22.9	44.3	3.1	100.0
Five	21.2	21.0	23.9	33.9	100.0
Six	14.4	18.5	23.0	44.1	100.0
Seven and over	6.8	13.7	19.0	60.5	100.0
Total	44.4	18.1	16.6	20.9	100.0
<b>1981</b>					
Under three	96.4	3.5	0.1	..	100.0
Three	47.3	47.9	4.7	0.1	100.0
Four	29.7	21.3	46.5	2.5	100.0
Five	23.2	21.4	23.8	31.6	100.0
Six	18.6	21.0	22.6	37.8	100.0
Seven and over	10.2	17.0	21.4	51.4	100.0
Total	48.3	19.4	17.1	15.2	100.0
<b>1986</b>					
Under three	97.0	2.9	0.1	..	100.0
Three	49.7	46.1	4.1	0.1	100.0
Four	32.2	20.1	46.2	1.5	100.0
Five	29.5	20.8	23.3	26.4	100.0
Six	28.2	22.1	22.4	27.3	100.0
Seven and over	19.4	22.4	22.9	35.3	100.0
Total	53.7	19.7	17.4	9.2	100.0

**Table 44 Average Number of Working Members and Ratios of Non-working Members to Working Members by Household Size; 1976, 1981 and 1986**

<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>1986</i>	<i>1976</i>	<i>1981</i>	<i>1986</i>
One	0.7	0.7	0.7	0.4	0.4	0.4
Two	1.3	1.4	1.4	0.5	0.4	0.5
Three	1.5	1.6	1.6	1.0	0.8	0.9
Four	1.7	1.8	1.8	1.4	1.2	1.2
Five	2.0	2.1	2.2	1.5	1.3	1.3
Six	2.3	2.5	2.7	1.7	1.4	1.3
Seven	2.6	3.0	3.2	1.7	1.4	1.2
Eight	3.0	3.4	3.6	1.6	1.3	1.2
Nine	3.4	3.9	4.2	1.7	1.3	1.1
Ten and over	4.2	4.8	4.9	1.6	1.5	1.2
Overall	1.8	1.9	1.8	1.3	1.1	1.0

Table 45 **Percentage Distribution of Household Heads by Household Composition and Age of Head; 1976, 1981 and 1986**

<i>Year and Household Composition</i>	<i>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>	
<i>1976</i>							
One person	2.5	15.5	14.4	17.8	19.1	30.7	100.0
One unextended nuclear family	0.7	11.7	20.7	28.9	24.3	13.7	100.0
One vertically extended nuclear family	0.7	8.2	23.2	34.0	20.5	13.4	100.0
One horizontally extended nuclear family	1.0	27.4	29.9	19.8	13.7	8.2	100.0
Two or more nuclear families	0.5	9.9	14.2	16.0	28.9	30.5	100.0
Non-family-nuclear households	9.0	31.6	12.0	11.0	13.1	23.3	100.0
Households composed of non-usual household members only	..	..	..	..	..	..	..
Total	1.6	13.7	19.2	25.3	22.4	17.8	100.0
<i>1981</i>							
One person	2.7	18.1	15.2	15.7	16.8	31.5	100.0
One unextended nuclear family	0.4	12.2	24.7	25.8	22.6	14.3	100.0
One vertically extended nuclear family	0.3	6.5	19.1	25.6	25.4	23.1	100.0
One horizontally extended nuclear family	0.9	26.9	31.9	19.5	12.2	8.6	100.0
Two or more nuclear families	0.2	6.8	15.1	12.8	28.1	37.0	100.0
Non-family-nuclear households	8.2	39.2	13.6	9.2	9.7	20.1	100.0
Households composed of non-usual household members only	..	..	..	..	..	..	..
Total	1.4	14.5	21.2	21.9	21.2	19.8	100.0
<i>1986</i>							
One person	1.2	16.9	16.9	12.9	17.5	34.6	100.0
One unextended nuclear family	0.3	11.2	30.0	21.5	21.3	15.7	100.0
One vertically extended nuclear family	0.2	5.8	21.4	19.5	24.7	28.4	100.0
One horizontally extended nuclear family	0.4	26.3	35.7	14.1	12.5	11.0	100.0
Two or more nuclear families	0.1	6.8	18.2	10.2	23.0	41.7	100.0
Non-family-nuclear households	3.5	34.9	18.5	8.5	10.6	24.0	100.0
Households composed of non-usual household members only	2.6	28.4	26.8	15.0	13.1	14.1	100.0
Total	0.6	13.1	25.9	18.4	20.3	21.7	100.0

Table 46 **Headship Rates by Age; 1971, 1976, 1981 and 1986**

(Number of heads of households per 100 population)

<i>Age Group</i>	<i>1971</i>	<i>1976</i>	<i>1981</i>	<i>1986</i>
15-19	2.6	3.1	3.1	2.1
20-24	9.4	11.0	11.0	8.8
25-29	27.6	26.3	25.1	24.0
30-34	42.1	42.3	38.7	38.6
35-39	48.3	50.0	48.0	46.5
40-44	52.9	52.4	53.5	52.8
45-49	55.0	55.4	55.8	55.7
50-54	56.4	56.3	57.0	57.6
55-59	55.4	56.4	57.3	58.4
60-64	50.7	54.1	55.3	57.3
65 and over	38.0	42.9	47.3	50.4

Table 47(a) **Domestic Households by Monthly Household Income; 1976, 1981 and 1986**

(Income in current prices)

<i>Monthly Household Income</i>	<i>1976*</i>		<i>1981</i>		<i>1986</i>	
		%		%		%
Under \$ 2 000	662 350	69.5	355 437	28.6	141 289	9.7
\$ 2 000-\$ 3 999	215 290	22.6	477 995	38.4	368 884	25.4
\$ 4 000-\$ 5 999	41 580	4.4	209 281	16.8	340 871	23.5
\$ 6 000-\$ 7 999	15 580	1.6	91 622	7.4	209 360	14.4
\$ 8 000-\$ 9 999	7 000	0.7	42 742	3.4	125 631	8.6
\$10 000-\$11 999	3 860	0.4	22 640	1.8	79 490	5.5
\$12 000-\$14 999	2 530	0.3	16 735	1.3	66 709	4.6
\$15 000-\$19 999	1 600	0.2	12 250	1.0	53 412	3.7
\$20 000 and over	2 790	0.3	16 036	1.3	66 930	4.6
Total	952 580	100.0	1 244 738	100.0	1 452 576	100.0

Table 47(b) **Domestic Households by Monthly Household Income; 1976, 1981 and 1986**

(Income in 1986 prices)

<i>Monthly Household Income</i>	<i>1976*</i>		<i>1981</i>		<i>1986</i>	
		%		%		%
Under \$ 2 000	226 970	23.8	195 646	15.7	141 289	9.7
\$ 2 000-\$ 3 999	375 980	39.6	362 868	29.1	368 884	25.4
\$ 4 000-\$ 5 999	177 570	18.6	269 595	21.7	340 871	23.5
\$ 6 000-\$ 7 999	73 630	7.7	163 452	13.1	209 360	14.4
\$ 8 000-\$ 9 999	36 180	3.8	89 221	7.2	125 631	8.6
\$10 000-\$11 999	19 670	2.1	50 972	4.1	79 490	5.5
\$12 000-\$14 999	15 370	1.6	43 755	3.5	66 709	4.6
\$15 000-\$19 999	12 570	1.3	33 263	2.7	53 412	3.7
\$20 000 and over	14 640	1.5	35 966	2.9	66 930	4.6
Total	952 580	100.0	1 244 738	100.0	1 452 576	100.0

\* Excluding 46 810 households whose bread winners were not in the household on the census reference night and whose other members had no 'other cash income'.

Table 48(a) **Median Monthly Household Income by Household Composition; 1976, 1981 and 1986**

(Median income in current prices)

<i>Household Composition</i>	<i>1976*</i>	<i>1981</i>	<i>1986</i>
One person	706	1 272	2 388
One unextended nuclear family	1 475	3 067	5 355
One vertically extended nuclear family	1 664	3 620	5 961
One horizontally extended nuclear family	2 067	4 366	7 127
Two or more nuclear families	2 411	5 344	8 261
Non-family-nuclear households	1 420	2 821	4 622
Households composed of non-usual household members only	..	..	4 198
Overall	1 425	2 955	5 160

Table 48(b) **Median Monthly Household Income by Household Composition; 1976, 1981 and 1986**

(Median income in 1986 prices)

<i>Household Composition</i>	<i>1976*</i>	<i>1981</i>	<i>1986</i>
One person	1 615	1 939	2 388
One unextended nuclear family	3 373	4 674	5 355
One vertically extended nuclear family	3 806	5 517	5 961
One horizontally extended nuclear family	4 727	6 654	7 127
Two or more nuclear families	5 514	8 144	8 261
Non-family-nuclear households	3 248	4 299	4 622
Households composed of non-usual household members only	..	..	4 198
Overall	3 259	4 503	5 160

\* Excluding 46 810 households whose bread winners were not in the household on the census reference night and whose other members had no 'other cash income'.

Table 49(a) **Median Monthly Household Income by Household Size;  
1976, 1981 and 1986**

(Median income in current prices)

<i>Household Size</i>	<i>1976*</i>	<i>1981</i>	<i>1986</i>
One	706	1 272	2 444
Two	1 182	2 445	4 486
Three	1 364	2 865	5 069
Four	1 483	3 146	5 422
Five	1 580	3 463	6 123
Six	1 710	3 887	7 020
Seven	1 876	4 391	7 994
Eight	2 098	4 991	8 853
Nine	2 209	5 527	9 915
Ten and over	2 704	6 537	11 427
Overall	1 425	2 955	5 160

Table 49(b) **Median Monthly Household Income by Household Size;  
1976, 1981 and 1986**

(Median income in 1986 prices)

<i>Household Size</i>	<i>1976*</i>	<i>1981</i>	<i>1986</i>
One	1 615	1 939	2 444
Two	2 703	3 726	4 486
Three	3 119	4 366	5 069
Four	3 392	4 795	5 422
Five	3 613	5 278	6 123
Six	3 911	5 924	7 020
Seven	4 290	6 692	7 994
Eight	4 798	7 606	8 853
Nine	5 052	8 423	9 915
Ten and over	6 184	9 962	11 427
Overall	3 259	4 503	5 160

\* Excluding 46 810 households whose bread winners were not in the household on the census reference night and whose other members had no 'other cash income'.

# Housing Characteristics

## Introduction

Data on living quarters and households available from population censuses are used to identify as well as quantify the progress and needs in the area of housing. To put in perspective the changes in housing conditions over the last 15 years, a brief account of the position in 1971 is in order. According to the 1971 Census, 31 per cent of households were living in public rental estates. Many of these tenants were accommodated in self-contained units but there was still a significant number of them 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 offering rudimentary accommodation and communal washing and latrine facilities. Private housing then accommodated 60 per cent of households, with the majority living in apartment blocks and tenement floors. Sharing a living quarter by more than one household was not uncommon and the average sharing in private housing blocks was 1.67 households per living quarter. Many households lived in bedspaces, cocklofts, verandahs, etc. Shortage in housing was also demonstrated by the 8 per cent households who were living in temporary, improvised accommodation such as roof-top structures, squatter huts, derelict boats, rural shacks and mobile dwellings.

## Stock of living quarters

In 1971, the stock of living quarters was recorded as 707 110; it increased to 942 620 in 1976, to 1 186 362 in 1981 and to 1 533 630 in 1986. The large increase in the stock of living quarters was brought about by a high level of construction in both the private and public sectors, the rate of increase being particularly significant over the last 10 years. Between 1976 and 1986, the net stock of living quarters in private housing blocks, including the Housing Authority home ownership estates (which were first available for occupation in 1980) increased by 298 000, an average of 30 000 a year. This high level was the outcome of a sustained demand for residential property arising from the appreciable growth in incomes. Living quarters provided by the public sector grew at an average of 22 000 a year. There was also a rapid increase in the number of villas/bungalows/modern village houses, which had increased tenfold since 1976. (Table 50)

Of the total stock of living quarters in 1986, 88 per cent were occupied at the time of the By-Census. The occupancy rate for public and aided housing was higher than that for private housing, 92 per cent as compared with 86 per cent. The occupancy rate for temporary housing was 81 per cent. (Tables 50, 51)

## Occupancy of living quarters

A somewhat higher proportion of both population and households was found in public and aided housing in 1986 than in 1976; the position was reversed for private housing (a decrease of 1.5 percentage points and 3.0 percentage points respectively). Concurrently, there has been a significant development of the Housing Authority home ownership scheme since 1981. In 1981, just over half a per cent of the population were in the Housing Authority home ownership estates; in 1986, the figure was 4.1 per cent. For temporary housing, the proportion showed a decrease of 2.8 percentage points over the period. (Tables 52, 53)

Over the last 10 years, there was a steady decrease in the number of persons occupying a living quarter, from an average of 5 persons in 1976 to 4 persons in 1986. The decrease was more significant in the latter half of the period than in the first half. The rate of decrease varied considerably between different types of living quarters; in general, the rate was faster for living quarters in private housing than in public and aided housing. As a result, the average number of occupants per living quarter in public and aided housing in 1986 was appreciably higher than that for private housing. (Table 54)

## Sharing of living quarters

Excluding living quarters that were not occupied by domestic households, the overall average number of households per living quarter decreased from 1.21 in 1976 to 1.11 in 1986, mainly as a result of a faster increase in the total number of private and public living quarters compared with the growth of households. For public and aided housing, sharing of living quarters was minimal. For private housing, sharing varied between different types of living quarters. In general, private housing blocks had the highest average number of households per living quarter but the average decreased significantly over the years 1976–86. (Table 55)

## **Tenure of accommodation**

Between 1976 and 1986, the proportion of households owning their flats showed a substantial increase, from 23 per cent to 35 per cent, and the increase was especially significant over the last five years. For those renting accommodation, the proportion of sole tenants and co-tenants together remained effectively unchanged at the 51 per cent level. With more supply of housing, the proportion of main tenants and sub-tenants decreased drastically from 19 per cent in 1976 to 7 per cent in 1986. (Table 56)

## **Household income and housing**

The levels of household income varied significantly between different types of housing. Households in the Housing Authority home ownership estates had the highest median monthly income, followed by households in private housing blocks. Incomes for households in both private housing blocks and public and aided housing increased substantially over the years 1976–86. The median monthly household income, calculated in 1986 prices, showed that real income for households in private housing blocks increased by 63 per cent over the period; that for households in public and aided housing increased by 55 per cent. Real income for households in all other types of housing (except the Housing Authority home ownership estates) increased by a lower percentage, ranging from 2 per cent to 52 per cent. (Table 57)

## **Household size and housing**

For both public and private housing, there was a larger proportion of households in the 2–4 person category in 1986 than in 1976; the increase was of the order of 9 to 16 percentage points. In 1986, two-thirds of households (the highest proportion of all) in the Housing Authority home ownership estates were found in the 2–4 person category. On the other hand, public and aided housing still had the highest proportion of households with 5 and more persons. (Table 58)

## **Age distribution of population and housing**

Overall, the population was aging. The age distribution of the population in different types of housing has also changed considerably over the years 1976–86. In 1976, 34 per cent of the population in public and aided housing were under 15; in 1986, the figure was 24 per cent. The proportion of those aged 55 and above increased from 11 per cent to 16 per cent. For private housing, the corresponding proportions for the respective age groups were 27 per cent and 15 per cent in 1976 and 22 per cent and 17 per cent in 1986. The population in these two age groups in public and aided housing had undergone a more rapid change than those in private housing. (Table 59)

On the other hand, there was an appreciably higher proportion of the population under 15 in the Housing Authority home ownership estates in 1986 than in 1981. And a more significant increase in the proportion of the population between 15 and 54 was found in temporary housing than in all other types of housing. For institutional housing, there was a substantial increase in the proportion of those aged 55 and above. (Table 59)

As a result of these changes, the median age of the population in public and aided housing increased significantly from 20.8 in 1976 to 26.7 in 1986 (an increase of 5.9 years) and of those in private housing, from 26.5 to 30.3 (an increase of 3.8 years). Despite a more rapid aging process, the population in public and aided housing still had the lowest median age among all, followed by those in temporary housing. (Table 60)

Table 50 **Stock of Living Quarters by Type of Living Quarter; 1976, 1981 and 1986**

<i>Type of Living Quarter</i>	<i>1976*</i>		<i>1981</i>		<i>1986</i>		
		%		%		%	
Housing Authority rental blocks							
Group A	}	315 250	37.3	204 478	17.2	353 822	23.2
Group B				203 042	17.1	173 054	11.3
Housing Society rental blocks		22 420	2.6	26 142	2.2	29 883	1.9
Housing Authority home ownership estates		..	..	8 751	0.7	65 744	4.3
Private housing blocks							
Self-contained		340 090	40.2	460 592	38.9	583 429	38.1
Non self-contained		11 990	1.4	5 636	0.5	1 309	0.1
Villas/Bungalows/Modern village houses		5 480	0.6	30 524	2.6	55 517	3.6
Simple stone structures		34 080	4.0	64 443	5.4	59 647	3.9
Institutions		13 140	1.6	12 017	1.0	38 899	2.5
Other permanent housing		16 470	1.9	47 311	4.0	43 652	2.8
Housing Authority cottages		6 390	0.8	4 495	0.4	3 703	0.2
Housing Authority temporary huts		7 970	0.9	26 583	2.2	43 694	2.8
Roof-top structures		6 820	0.8	9 652	0.8	8 918	0.6
Other private temporary housing		67 280	7.9	82 696	7.0	72 359	4.7
<b>Total</b>		<b>847 380</b>	<b>100.0</b>	<b>1 186 362</b>	<b>100.0</b>	<b>1 533 630</b>	<b>100.0</b>

\* Excluding 95 240 vacant living quarters and quarters whose occupants were temporarily absent during the census reference night.

Table 51 **Occupied Living Quarters by Type of Living Quarter; 1976, 1981 and 1986**

<i>Type of Living Quarter</i>	<i>1976</i>		<i>1981</i>		<i>1986</i>		
		%		%		%	
Housing Authority rental blocks							
Group A	}	315 250	37.3	194 544	18.3	332 535	24.7
Group B				183 970	17.3	148 099	11.0
Housing Society rental blocks		22 420	2.6	25 645	2.4	29 106	2.2
Housing Authority home ownership estates		..	..	7 356	0.7	57 134	4.2
Private housing blocks							
Self-contained		340 090	40.2	417 543	39.4	517 083	38.4
Non self-contained		11 990	1.4	4 034	0.4	1 120	0.1
Villas/Bungalows/Modern village houses		5 480	0.6	22 708	2.1	40 159	3.0
Simple stone structures		34 080	4.0	50 424	4.8	46 095	3.4
Institutions		13 140	1.6	13 298	1.3	36 393	2.7
Other permanent housing		16 470	1.9	35 081	3.3	34 580	2.6
Housing Authority cottages		6 390	0.8	3 944	0.4	3 080	0.2
Housing Authority temporary huts		7 970	0.9	22 466	2.1	32 130	2.4
Roof-top structures		6 820	0.8	7 538	0.7	6 986	0.5
Other private temporary housing		67 280	7.9	72 535	6.8	61 558	4.6
<b>Total</b>		<b>847 380</b>	<b>100.0</b>	<b>1 061 086</b>	<b>100.0</b>	<b>1 346 058</b>	<b>100.0</b>

Table 52 **Population by Type of Living Quarter; 1976, 1981 and 1986**

<i>Type of Living Quarter</i>	1976		1981		1986	
		%		%		%
Housing Authority rental blocks						
Group A	} 1 605 520	37.7	991 516	20.1	1 514 429	28.3
Group B			798 437	16.2	543 662	10.1
Housing Society rental blocks	121 280	2.9	128 814	2.6	127 484	2.4
Housing Authority home ownership estates	..	..	30 773	0.6	219 394	4.1
Private housing blocks						
Self-contained	1 777 550	41.7	2 045 433	41.5	2 080 925	38.9
Non self-contained	58 660	1.4	17 820	0.4	5 621	0.1
Villas/Bungalows/Modern village houses	25 000	0.6	112 046	2.3	164 647	3.1
Simple stone structures	151 910	3.6	238 274	4.8	182 980	3.4
Institutions	45 170	1.1	41 023	0.8	55 881	1.0
Other permanent housing	63 450	1.5	114 141	2.3	102 060	1.9
Housing Authority cottages	32 820	0.8	17 272	0.3	11 081	0.2
Housing Authority temporary huts	29 960	0.7	75 409	1.5	103 789	1.9
Roof-top structures	31 020	0.7	30 269	0.6	23 429	0.4
Other private temporary housing	311 320	7.3	295 586	6.0	223 335	4.2
<b>Total</b>	<b>4 253 660</b>	<b>100.0</b>	<b>4 936 813</b>	<b>100.0</b>	<b>5 358 717</b>	<b>100.0</b>

Table 53 **Domestic Households by Type of Living Quarter; 1976, 1981 and 1986**

<i>Type of Living Quarter</i>	1976		1981		1986	
		%		%		%
Housing Authority rental blocks						
Group A	} 318 340	32.1	198 222	15.9	335 188	23.2
Group B			188 871	15.3	149 548	10.3
Housing Society rental blocks	22 400	2.3	25 972	2.1	29 113	2.0
Housing Authority home ownership estates	..	..	7 176	0.6	57 183	4.0
Private housing blocks						
Self-contained	478 330	48.4	580 004	46.8	634 011	43.9
Non self-contained	17 530	1.8	6 834	0.6	2 128	0.1
Villas/Bungalows/Modern village houses	5 860	0.6	26 328	2.1	42 000	2.9
Simple stone structures	34 710	3.5	57 775	4.7	50 281	3.5
Institutions	3 130	0.3	2 313	0.2	4 704	0.3
Other permanent housing	13 250	1.3	29 485	2.4	31 465	2.2
Housing Authority cottages	6 880	0.7	4 225	0.3	3 164	0.2
Housing Authority temporary huts	7 940	0.8	22 291	1.8	32 473	2.2
Roof-top structures	8 260	0.8	9 552	0.8	8 344	0.6
Other private temporary housing	73 660	7.4	78 595	6.4	66 087	4.6
<b>Total</b>	<b>990 290</b>	<b>100.0</b>	<b>1 237 643</b>	<b>100.0</b>	<b>1 445 689</b>	<b>100.0</b>

Table 54 **Average Number of Occupants per Living Quarter by Type of Living Quarter; 1976, 1981 and 1986**

<i>Type of Living Quarter</i>	<i>1976</i>	<i>1981</i>	<i>1986</i>
Housing Authority rental blocks			
Group A	5.1	5.1	4.6
Group B		4.3	3.7
Housing Society rental blocks	5.4	5.0	4.4
Housing Authority home ownership estates	..	4.3	3.8
Private housing blocks	5.2	4.9	4.0
Villas/Bungalows/Modern village houses	4.6	4.7	4.1
Simple stone structures	4.5	4.7	4.0
Institutions and other permanent housing	3.7	3.6	2.2
Housing Authority cottages/temporary huts	4.4	3.6	3.3
Private temporary housing	4.6	4.1	3.6
Overall	5.0	4.7	4.0

Table 55 **Average Number of Domestic Households per Living Quarter by Type of Living Quarter; 1976, 1981 and 1986**

<i>Type of Living Quarter</i>	<i>1976</i>	<i>1981</i>	<i>1986</i>
Housing Authority rental blocks			
Group A	1.01	1.01	1.01
Group B		1.02	1.01
Housing Society rental blocks	1.00	1.00	1.00
Housing Authority home ownership estates	..	1.00	1.00
Private housing blocks	1.45	1.41	1.24
Villas/Bungalows/Modern village houses	1.08	1.11	1.06
Simple stone structures	1.03	1.15	1.10
Institutions and other permanent housing	1.04	1.06	1.07
Housing Authority cottages/temporary huts	1.04	1.03	1.01
Private temporary housing	1.15	1.13	1.09
Overall	1.21	1.19	1.11

Table 56 **Domestic Households\* by Tenure; 1976, 1981 and 1986**

<i>Tenure</i>	<i>1976</i>		<i>1981</i>		<i>1986</i>	
		%		%		%
Owner-occupier	229 620	23.2	345 026	27.9	506 926	35.1
Sole tenant	459 140	46.3	545 158	44.0	657 818	45.4
Main tenant	42 090	4.3	48 634	3.9	24 353	1.7
Sub-tenant	143 240	14.5	145 382	11.7	73 570	5.1
Co-tenant	46 570	4.7	68 910	5.6	85 274	5.9
Rent free	34 980	3.5	30 534	2.5	31 486	2.2
Provided or subsidized by employer	34 650	3.5	53 999	4.4	66 262	4.6
Total	990 290	100.0	1 237 643	100.0	1 445 689	100.0

\* Excluding households in the Marine district.

Table 57(a) **Median Monthly Household Income by Type of Living Quarter; 1976, 1981 and 1986**

(Median income in current prices)

<i>Type of Living Quarter</i>	<i>1976</i>	<i>1981</i>	<i>1986</i>
Public and aided housing	1 379	2 887	4 899
Housing Authority home ownership estates	..	4 785	7 077
Private housing blocks	1 564	3 226	5 845
Villas/Bungalows/Modern village houses	2 314	3 098	5 395
Simple stone structures	1 049	2 312	3 657
Institutions and other permanent housing	1 944	3 376	5 431
Housing Authority cottages/temporary huts	1 192	2 171	3 506
Private temporary housing	1 108	2 287	3 467
Overall*	1 426	2 953	5 159

Table 57(b) **Median Monthly Household Income by Type of Living Quarter; 1976, 1981 and 1986**

(Median income in 1986 prices)

<i>Type of Living Quarter</i>	<i>1976</i>	<i>1981</i>	<i>1986</i>
Public and aided housing	3 154	4 400	4 899
Housing Authority home ownership estates	..	7 292	7 077
Private housing blocks	3 577	4 916	5 845
Villas/Bungalows/Modern village houses	5 292	4 721	5 395
Simple stone structures	2 399	3 523	3 657
Institutions and other permanent housing	4 446	5 145	5 431
Housing Authority cottages/temporary huts	2 726	3 309	3 506
Private temporary housing	2 534	3 485	3 467
Overall*	3 261	4 500	5 159

\* Excluding households in the Marine district.

Table 58 **Percentage Distribution of Domestic Households by Type of Living Quarter and Household Size; 1976, 1981 and 1986**

<i>Year and Type of Living Quarter</i>	<i>Household Size</i>					<i>Total</i>
	<i>One</i>	<i>Two</i>	<i>Three</i>	<i>Four</i>	<i>Five and over</i>	
<b>1976</b>						
Public and aided housing	6.2	8.2	10.8	14.9	59.9	100.0
Housing Authority home ownership estates	..	..	..	..	..	..
Private housing	19.6	17.8	15.0	14.7	32.9	100.0
Institutions	12.8	18.2	23.0	23.0	23.0	100.0
Housing Authority cottages/temporary huts	14.0	12.0	15.4	18.6	40.0	100.0
Private temporary housing	19.0	14.9	14.4	12.8	38.9	100.0
Total	14.8	14.1	13.5	14.7	42.9	100.0
<b>1981</b>						
Public and aided housing	6.8	9.5	13.1	19.0	51.6	100.0
Housing Authority home ownership estates	3.9	13.0	20.2	21.4	41.5	100.0
Private housing	19.6	18.6	16.5	16.4	28.9	100.0
Institutions	29.8	18.6	14.5	19.8	17.3	100.0
Housing Authority cottages/temporary huts	19.8	16.1	18.4	19.0	26.7	100.0
Private temporary housing	20.0	18.4	17.0	14.9	29.7	100.0
Total	15.2	15.5	15.5	17.2	36.6	100.0
<b>1986</b>						
Public and aided housing	7.3	10.0	15.6	24.2	42.9	100.0
Housing Authority home ownership estates	3.4	15.9	23.7	27.8	29.2	100.0
Private housing	19.6	20.4	18.1	18.0	23.9	100.0
Institutions	24.4	19.6	22.2	18.5	15.3	100.0
Housing Authority cottages/temporary huts	20.5	19.2	17.5	20.4	22.4	100.0
Private temporary housing	23.6	18.3	16.9	17.0	24.2	100.0
Total	14.8	16.4	17.3	20.6	30.9	100.0

Table 59 **Percentage Distribution of Population by Type of Living Quarter and Age of Population; 1976, 1981 and 1986**

<i>Year and Age Group</i>	<i>Type of Living Quarter</i>						<i>Total</i>
	<i>Public and aided housing</i>	<i>Housing Authority home ownership estates</i>	<i>Private housing</i>	<i>Institutions</i>	<i>Housing Authority cottages/temporary huts</i>	<i>Private temporary housing</i>	
<b>1976</b>							
0- 4	7.3	..	9.3	6.9	13.7	10.1	8.6
5- 9	10.6	..	8.2	4.9	8.1	10.0	9.3
10-14	15.6	..	9.4	5.7	10.8	13.7	12.3
15-19	14.9	..	10.0	10.2	11.4	11.6	12.1
20-24	9.7	..	10.0	15.7	11.2	8.7	9.9
25-54	30.7	..	38.2	36.7	33.2	31.9	34.5
55-64	6.7	..	8.6	7.9	7.0	7.8	7.7
65 and over	4.5	..	6.3	12.0	4.6	6.2	5.6
Total	100.0	..	100.0	100.0	100.0	100.0	100.0
<b>1981</b>							
0- 4	6.3	9.3	8.3	5.3	14.6	9.9	7.7
5- 9	8.6	6.9	7.8	3.8	10.2	8.2	8.2
10-14	10.9	5.7	7.4	4.0	6.9	8.6	8.8
15-19	14.7	9.5	8.9	12.2	7.2	11.0	11.3
20-24	12.6	12.3	10.9	14.3	9.7	13.5	11.7
25-54	33.0	43.2	41.6	35.6	40.4	36.2	37.8
55-64	7.9	8.2	8.1	7.0	5.8	6.7	7.9
65 and over	6.0	4.9	7.0	17.8	5.2	5.9	6.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<b>1986</b>							
0- 4	5.9	10.7	7.4	7.6	14.4	11.4	7.3
5- 9	8.5	7.9	7.1	4.2	8.3	7.2	7.7
10-14	9.6	5.7	7.2	5.0	7.1	7.1	8.1
15-19	10.6	5.4	6.9	7.3	6.2	7.4	8.3
20-24	12.2	9.8	9.0	11.4	8.1	10.2	10.4
25-54	37.2	47.6	45.8	34.2	46.6	41.9	42.1
55-64	8.9	7.5	8.6	6.4	4.9	7.8	8.5
65 and over	7.1	5.4	8.0	23.9	4.4	7.0	7.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Table 60 Median Age of Population by Type of Living Quarter; 1976, 1981 and 1986

<i>Type of Living Quarter</i>	<i>1976</i>	<i>1981</i>	<i>1986</i>
Public and aided housing	20.8	23.8	26.7
Housing Authority home ownership estates	..	27.2	28.4
Private housing	26.5	28.0	30.3
Institutions	27.6	29.4	31.5
Housing Authority cottages/temporary huts	22.7	25.6	27.0
Private temporary housing	22.6	24.5	27.5
Overall	23.9	26.2	28.7



# Population of New Towns and Internal Movement

## Introduction

The 1970's saw a huge development programme in the New Territories. Out of the large rural expanses of the New Territories the new towns in Tsuen Wan, which was first developed in the early 1960's, and in Sha Tin and Tuen Mun emerged as self-contained communities providing housing, schools, community amenities and industry. Meanwhile, the old market towns at Tai Po, Sheung Shui, Fanling and Yuen Long were being expanded and urbanized. The development of these new towns has led to a massive redistribution of the population over the last 15 years and helped provide an increasing population with an improved living environment.

The population of the new towns were in many ways different from those in the urban areas of Hong Kong Island, Kowloon and New Kowloon and in the rural parts of the New Territories. The analysis in the following sections highlights some of the dissimilarities existing between them.

## Households in new towns and housing characteristics

As a result of people moving out of the main urban areas, the total households in the new towns (namely Tsuen Wan, Kwai Chung/Tsing Yi, Sha Tin, Tuen Mun, Tai Po, Sheung Shui/Fanling and Yuen Long) increased nearly threefold over 1976. And the population in the new towns increased, though not as fast as the households, two and half times. By 1986, 27 per cent of households in Hong Kong were found in the new towns, and 52 per cent of them were in public and aided housing. For other areas in the New Territories, the household growth was 30 per cent over the period. The majority of households in the urban areas and the rural New Territories were in private housing. There was also a large proportion of households in temporary housing in the rural areas. (Tables 61, 62)

For all types of housing, sharing of living quarters was higher in the urban areas than in the new towns—an average of 1.15 households shared a living quarter compared with an average of 1.04 households. For the rural New Territories, sharing of living quarters was lower. (Table 63)

The differences between the average numbers of occupants per living quarter for different types of housing for the urban areas and the new towns were such that the average for all types of housing for the urban areas and that for the new towns were both the same, 4 persons per living quarter. The average, however, was significantly lower for the rural New Territories. (Table 64)

Households in public and aided housing Group A rental blocks in the new towns paid, on average, a higher rent than those in the rural New Territories and the urban areas, in that order. For whole houses/flats in private housing, the highest median rent was found in the rural New Territories, followed by the urban areas. (Table 65)

On average, households in the urban areas were better off than those in the new towns. There was a difference of 7 per cent between their median monthly household income. Overall, households in the rural New Territories had least median household income. The pattern changed for certain types of housing. For example, the median household income of households in private housing blocks was higher for the rural New Territories than for the new towns and the urban areas, in that order. (Table 66)

Over the period 1976–86, the decrease in the average household size under 1976 was roughly of the same order for the urban areas, the rural New Territories and the Marine despite that there was a more significant decrease for the Marine and the rural New Territories during the last five years. For the new towns, the average household size decreased at a lower rate. The Marine still had the highest average household size (5.3 persons), followed by the new towns (an average of 3.9 persons). (Table 67)

There were more simple nuclear families in the new towns than in all other areas. The number of these households in the new towns had increased threefold since 1976, from 86 500 to 263 300. On the other hand, there were relatively fewer one-person households in the new towns than in the urban areas and the proportion showed a steady decrease in the last 10 years. The proportion of one-person households in the rural New Territories was highest among all areas and had in fact increased appreciably over the period. The Marine had a very different pattern of household composition. There was a much lower proportion of simple nuclear families, but a substantially larger proportion of households consisting of two or more nuclear families. The proportion of multi-nuclear family households was also larger for the rural New Territories than for the other two areas. (Table 68)

A higher proportion of the population in the new towns was under 15 than that for the urban areas. It decreased significantly from 36 per cent to 29 per cent during the last 10 years. At the same time, there was a remarkable increase in the proportion of the population of young working age (those aged between 25 and 44) in both the new towns and the urban areas. The proportion of those aged 65 and above in the urban areas increased from 6 per cent to 8 per cent over the period; that for the new towns remained unchanged at the 5 per cent level. The age pattern of the population for the rural New Territories was partly similar to that for the new towns and partly similar to that for the urban areas. There was a higher proportion of the population under 15 and also a higher proportion of those aged 65 and above. For the Marine, 52 per cent of the population were under 25. (Table 69)

The sex ratio of the population for the new towns and that for the urban areas were about the same and it remained roughly unchanged over the period 1976–86. The sex ratio for the rural New Territories, however, increased appreciably from a lower figure of 1 020 to a higher figure of 1 092; that for the Marine, which was highest among all areas, increased significantly from 1 185 to 1 331. (Table 69)

There were relatively more people having no schooling or just primary education, and less people having tertiary education, in the new towns than in the urban areas. The proportions of those having secondary education for the two areas, however, were both the same. People in the rural New Territories, especially in the Marine, had much lower educational attainment than their counterparts in the new towns and the urban areas. (Table 70)

The school attendance rate for children aged 3–11 for the new towns and that for the urban areas were both the same. The rate for the age group 12–18, however, was appreciably lower for the new towns than for the urban areas. On the other hand, the rural New Territories had lower school attendance among children under 6 and among the population aged 17–18. And the Marine had the lowest school attendance rate for all age groups. (Table 71)

In general, the male population aged 15–44 in the new towns had a higher labour force participation rate than those in the urban areas. The position was reversed for those in the older age groups. Labour participation among females in all ages, except those in the age groups 15–19 and 45–54, was higher for the urban areas than for the new towns. For the age groups 15–19 and 45–54, it was just the other way round. The overall pattern of the sex-age-specific labour force participation rates was rather different for the rural New Territories. Males in all ages, except those in the age group 15–19, had a lower labour force participation rate than those in the other areas. Labour participation of the young population aged 15–19, both males and females, in the rural New Territories was significantly higher than that for the new towns and the urban areas. Older females in the rural New Territories also tended to have higher labour participation. For the Marine, the labour force participation rates for both males and females in most ages were highest among all areas. (Table 72)

There were relatively more workers in manufacturing industries in the new towns than in the other areas. The urban areas, on the other hand, had the highest proportion of workers in wholesale and retail trade, restaurants and hotels, and financing, insurance, real estate and business services. The proportion of workers in construction industries in the rural New Territories was higher than that for the new towns and the urban areas. Of course, there were more workers in agriculture and fishing in the rural New Territories and the Marine than in the other two areas. (Table 73)

The occupational pattern of the working population in the new towns was different from that for the urban areas. Some 53 per cent of the new towns' working population were production workers and only 9 per cent were in professional, administrative and managerial occupations, compared with 40 per cent and 14 per cent respectively for the urban areas. The proportion of those in clerical, sales and service occupations was significantly lower for the new towns and the rural New Territories than for the urban areas. The proportion in production occupations was lowest for the Marine. (Table 74)

Workers in the urban areas were generally better off than those in the other areas. The median monthly earnings of workers were higher for the urban areas than for the new towns, \$2,716 compared with \$2,653. The difference for the rural New Territories and the Marine was more significant, in the order of 14 per cent and 27 per cent respectively. There was a larger proportion of workers earning less than \$3,000 a month and a smaller proportion earning \$8,000 or more in the new towns and the rural New Territories than in the urban areas. For the Marine, the situation was rather extreme: there were relatively more workers earning less than \$3,000 a month and also more workers earning \$8,000 or more. (Table 75)

## Internal movement

Members of the community move around in a variety of circumstances and for a variety of reasons. This movement is basically of two kinds. The first kind is short term and relates to such things as commuting between home and place of work, home and school, etc. The second kind is of a longer term nature and involves a change in the usual place of residence. Information relevant to the second kind, which is referred to as internal movement, was obtained in the 1986 By-Census. For this measure, the 'place of residence five years ago' approach was adopted because it is simple and specific and also because it provides data on total movement during a specific time interval. Note that it does not cover multiple movements or circulatory movements during the five-year period. And since no questions were asked of the persons before they moved on their characteristics, the analysis in the following sections is by reference to their characteristics in 1986, not what they were in 1981.

## Pattern of internal movement

A total of 1 157 100 people living in Hong Kong in 1981 was recorded in the By-Census as having moved home between districts/new towns during the last five years. This represents 24 per cent of the population aged 5 and above (a total of 4 737 100 excluding those in the Marine district) who were in Hong Kong five years ago. Movements within the urban areas of Hong Kong Island, Kowloon and New Kowloon involved 38 per cent of the total number of people who moved, and movements from the urban areas to the new towns accounted for another 35 per cent. Of less importance were movements within the rural New Territories, or from the rural New Territories to the urban areas, or from the new towns to the rural areas. (Table 76)

## Characteristics of movers

### *(A) Housing pattern*

Some 36 per cent of movers were found in public and aided housing; the figure for non-movers was 45 per cent. There were more movers in home ownership estates and less in private housing than non-movers. Totally, the proportions of movers and non-movers in temporary housing were both the same. (Table 77)

### *(B) Age and sex*

There were relatively more children under 15 and more people aged between 25 and 44 among movers than among non-movers, 65 per cent as compared with 47 per cent. There was, however, a significantly higher proportion of non-movers in the age groups 15–24 and 45 and above. (Table 78)

### *(C) Educational attainment*

The levels of school attendance for movers and non-movers were not significantly different. Generally, movers had slightly better educational attainment than non-movers. (Table 79)

### *(D) Levels of labour force participation*

The sex-age-specific labour force participation rates for movers and non-movers both reflected the position for the population as a whole. Generally, the participation rate for males was highest for the age group 25–44 and for females, was highest for the age group 20–24, then decreased with age.

Overall, the male labour force participation rate for movers was 1.8 percentage points lower than that for non-movers, 79.3 per cent as compared with 81.1 per cent. The difference between the female participation rate for movers and that for non-movers was 4.6 percentage points, 47.5 per cent and 52.1 per cent respectively. (Table 80)

The male and female labour force participation rates for different age groups varied between movers and non-movers. The male participation rates for all ages were lower for movers than for non-movers, especially for the older age group 55 and above. On the other hand, the female participation rate for the age group 15–19 was appreciably higher for movers than for non-movers. For the other age groups, the rates for non-movers were consistently higher than the rates for movers, the difference being most significant among those aged between 20 and 34. (Table 80)

### *(E) Occupation*

There was a higher proportion of workers in professional, administrative and managerial occupations and a lower proportion in clerical and sales occupations among movers than among non-movers. For service and production occupations, the difference was marginal. (Table 81)

### *(F) Levels of income*

Workers among movers, on average, earned more than workers among non-movers; their median monthly earnings were \$3,066 and \$2,589 respectively. Workers with an income of \$6,000 or more a month were relatively the most mobile, then workers with an income of \$3,000 to under \$6,000, with workers earning less than \$3,000 being the least mobile of all. (Table 82)

Table 61 **Domestic Households by Type of Living Quarter and Broad Area and New Town; 1976, 1981 and 1986**

<i>Year and 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>	
		%		%		%
<b>1976</b>						
Public and aided housing	274 000	34.8	66 740	49.8	..	..
Housing Authority home ownership estates	..	..	..	..	..	..
Private housing	460 460	58.4	40 700	30.4	48 520	70.6
Institutions	1 470	0.2	70	0.1	1 590	2.3
Housing Authority cottages/ temporary huts	13 200	1.7	1 620	1.2	..	..
Private temporary housing	38 540	4.9	24 750	18.5	18 630	27.1
Total	787 670	100.0	133 880	100.0	68 740	100.0
<b>1981</b>						
Public and aided housing	298 449	31.9	114 452	52.6	164	0.2
Housing Authority home ownership estates	3 586	0.4	3 590	1.6	..	..
Private housing	569 248	60.8	73 677	33.8	57 501	68.8
Institutions	1 148	0.1	567	0.3	598	0.7
Housing Authority cottages/ temporary huts	14 819	1.6	10 168	4.7	1 529	1.8
Private temporary housing	49 040	5.2	15 269	7.0	23 838	28.5
Total	936 290	100.0	217 723	100.0	83 630	100.0
<b>1986</b>						
Public and aided housing	311 843	32.2	201 187	51.8	819	0.9
Housing Authority home ownership estates	24 024	2.5	33 159	8.5	..	..
Private housing	580 055	60.0	121 345	31.2	58 485	65.6
Institutions	2 170	0.2	931	0.2	1 603	1.8
Housing Authority cottages/ temporary huts	13 503	1.4	18 074	4.6	4 060	4.5
Private temporary housing	35 819	3.7	14 329	3.7	24 283	27.2
Total	967 414	100.0	389 025	100.0	89 250	100.0

Table 62 **Population in Domestic Households by Type of Living Quarter and Broad Area and New Town; 1976, 1981 and 1986**

Year and Type of Living Quarter	<i>Hong Kong Island, Kowloon and New Kowloon</i>		<i>New towns</i>		<i>Other areas in New Territories</i>	
		%		%		%
<b>1976</b>						
Public and aided housing	1 384 900	42.4	340 390	56.3	..	..
Housing Authority home ownership estates	..	..	..	..	..	..
Private housing	1 675 520	51.3	152 910	25.3	208 280	70.7
Institutions	4 850	0.1	210	*	5 560	1.9
Housing Authority cottages/ temporary huts	56 030	1.7	6 430	1.1	..	..
Private temporary housing	147 660	4.5	104 760	17.3	80 890	27.4
Total	3 268 960	100.0	604 700	100.0	294 730	100.0
<b>1981</b>						
Public and aided housing	1 368 747	38.2	547 063	59.0	692	0.2
Housing Authority home ownership estates	15 841	0.4	14 889	1.6	..	..
Private housing	1 975 125	55.2	269 205	29.0	242 961	69.6
Institutions	3 269	0.1	1 441	0.2	2 067	0.6
Housing Authority cottages/ temporary huts	52 271	1.5	34 348	3.7	5 594	1.6
Private temporary housing	163 360	4.6	59 792	6.5	97 665	28.0
Total	3 578 613	100.0	926 738	100.0	348 979	100.0
<b>1986</b>						
Public and aided housing	1 291 710	37.7	888 412	58.0	3 395	1.1
Housing Authority home ownership estates	96 145	2.8	123 249	8.1	..	..
Private housing	1 878 100	54.7	409 395	26.8	215 439	67.2
Institutions	6 286	0.2	1 708	0.1	5 516	1.7
Housing Authority cottages/ temporary huts	43 253	1.3	57 239	3.7	14 168	4.4
Private temporary housing	113 071	3.3	50 211	3.3	82 068	25.6
Total	3 428 565	100.0	1 530 214	100.0	320 586	100.0

\* Less than 0.05%.

Table 63 **Average Number of Domestic Households per Living Quarter by Type of Living Quarter and Broad Area and New Town**

<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>
Housing Authority rental blocks			
Group A	1.01	1.01	1.01
Group B	1.01	1.01	..
Housing Society rental blocks	1.00	1.00	1.00
Housing Authority home ownership estates	1.00	1.00	..
Private housing blocks	1.26	1.12	1.05
Villas/Bungalows/Modern village houses	1.00	1.13	1.03
Simple stone structures	1.24	1.14	1.03
Institutions and other permanent housing	1.07	1.09	1.00
Housing Authority cottages/temporary huts	1.02	1.01	1.01
Private temporary housing	1.15	1.08	1.02
Overall	1.15	1.04	1.03

Table 64 **Average Number of Occupants per Living Quarter by Type of Living Quarter and Broad Area and New Town**

<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>
Housing Authority rental blocks			
Group A	4.5	4.6	4.2
Group B	3.7	3.7	..
Housing Society rental blocks	4.4	4.4	4.1
Housing Authority home ownership estates	4.0	3.7	..
Private housing blocks	4.1	3.7	3.8
Villas/Bungalows/Modern village houses	4.7	4.2	4.0
Simple stone structures	4.2	4.4	3.7
Institutions and other permanent housing	2.3	2.2	1.9
Housing Authority cottages/temporary huts	3.3	3.2	3.6
Private temporary housing	3.6	3.8	3.5
Overall	4.0	4.0	3.5

Table 65 Median Monthly Household Rent by Type of Living Quarter and Accommodation and Broad Area and New Town

<i>Type of Living Quarter and Accommodation</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:			
Housing Authority rental blocks Group A (including Housing Society rental blocks)	403	427	423
Housing Authority rental blocks Group B	155	153	..
Private housing blocks (including home ownership estates):	833	868	1 590
Whole house/flat	1 822	1 577	2 118
Room/cubicle	668	677	683
Villas/Bungalows/Modern village houses	4 166	957	1 044
Simple stone structures	250	382	383
Institutions and other permanent housing	253	224	364
Housing Authority cottages/temporary huts	79	72	94
Private temporary housing	427	356	228
Overall	405	403	396

Table 66 Median Monthly Household Income of Domestic Households by Type of Living Quarter and Broad Area and New Town

<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	5 081	4 687	3 678
Private housing blocks (including home ownership estates)	5 894	6 316	7 266
Villas/Bungalows/Modern village houses	27 720	5 296	5 114
Simple stone structures	3 865	4 100	3 376
Institutions and other permanent housing	5 640	5 135	5 273
Housing Authority cottages/temporary huts	3 636	3 408	3 620
Private temporary housing	3 591	3 742	3 148
Overall	5 355	4 984	3 919

Table 67 Domestic Households by Household Size and Broad Area and New Town; 1976, 1981 and 1986

Year and Household Size	<i>Hong Kong Island, Kowloon and New Kowloon</i>		<i>New towns</i>		<i>Other areas in New Territories</i>		<i>Marine</i>	
		%		%		%		%
<b>1976</b>								
One	119 090	15.1	15 600	11.7	12 120	17.6	630	6.9
Two	114 780	14.6	15 030	11.2	10 200	14.8	710	7.8
Three	107 510	13.6	17 970	13.4	8 530	12.4	650	7.1
Four	116 650	14.8	21 020	15.7	8 250	12.0	670	7.4
Five	109 530	13.9	19 760	14.8	7 980	11.6	1 160	12.7
Six and over	220 110	28.0	44 500	33.2	21 660	31.6	5 280	58.1
Total	787 670	100.0	133 880	100.0	68 740	100.0	9 100	100.0
Average household size	4.2		4.5		4.3		6.4	
<b>1981</b>								
One	151 453	16.2	22 309	10.2	14 948	17.9	377	5.3
Two	151 283	16.2	27 069	12.4	12 969	15.5	520	7.3
Three	146 632	15.7	33 481	15.4	11 342	13.6	540	7.6
Four	158 706	16.9	43 304	19.9	11 254	13.5	644	9.1
Five	130 714	14.0	36 260	16.7	9 971	11.9	673	9.5
Six and over	197 502	21.0	55 300	25.4	23 146	27.6	4 341	61.2
Total	936 290	100.0	217 723	100.0	83 630	100.0	7 095	100.0
Average household size	3.8		4.3		4.2		6.9	
<b>1986</b>								
One	159 684	16.5	35 896	9.2	18 585	20.7	756	11.0
Two	167 412	17.3	52 234	13.4	16 828	18.9	703	10.2
Three	169 162	17.5	68 516	17.6	13 076	14.7	753	10.9
Four	187 306	19.4	97 405	25.1	13 440	15.1	899	13.1
Five	138 432	14.3	68 005	17.5	10 605	11.9	796	11.6
Six and over	145 418	15.0	66 969	17.2	16 716	18.7	2 980	43.2
Total	967 414	100.0	389 025	100.0	89 250	100.0	6 887	100.0
Average household size	3.5		3.9		3.6		5.3	

Table 68 **Domestic Households by Household Composition and Broad Area and New Town; 1976, 1981 and 1986**

<i>Year and Household Composition</i>	<i>Hong Kong Island, Kowloon and New Kowloon</i>		<i>New towns</i>		<i>Other areas in New Territories</i>		<i>Marine</i>	
		%		%		%		%
<b>1976</b>								
One person	119 090	15.1	15 600	11.7	12 120	17.6	630	6.9
One unextended nuclear family	470 060	59.7	86 450	64.6	40 060	58.2	5 220	57.4
One vertically extended nuclear family	74 340	9.4	13 040	9.7	5 410	7.9	750	8.2
One horizontally extended nuclear family	15 840	2.0	2 580	1.9	1 040	1.5	310	3.4
Two or more nuclear families	47 160	6.0	7 260	5.4	4 160	6.1	1 680	18.5
Non-family-nuclear households	61 180	7.8	8 950	6.7	5 950	8.7	510	5.6
Households composed of non-usual household members only	..	..	..	..	..	..	..	..
<b>Total</b>	<b>787 670</b>	<b>100.0</b>	<b>133 880</b>	<b>100.0</b>	<b>68 740</b>	<b>100.0</b>	<b>9 100</b>	<b>100.0</b>
<b>1981</b>								
One person	151 453	16.2	22 309	10.2	14 948	17.9	377	5.3
One unextended nuclear family	500 500	53.4	131 959	60.7	41 279	49.3	3 371	47.6
One vertically extended nuclear family	126 343	13.5	29 808	13.7	11 651	13.9	888	12.5
One horizontally extended nuclear family	22 369	2.4	5 502	2.5	2 139	2.6	308	4.3
Two or more nuclear families	56 381	6.0	13 125	6.0	6 908	8.3	1 811	25.5
Non-family-nuclear households	79 244	8.5	15 020	6.9	6 705	8.0	340	4.8
Households composed of non-usual household members only	..	..	..	..	..	..	..	..
<b>Total</b>	<b>936 290</b>	<b>100.0</b>	<b>217 723</b>	<b>100.0</b>	<b>83 630</b>	<b>100.0</b>	<b>7 095</b>	<b>100.0</b>
<b>1986</b>								
One person	139 552	14.4	29 484	7.6	17 220	19.3	585	8.5
One unextended nuclear family	547 204	56.5	263 326	67.8	46 634	52.2	2 903	42.2
One vertically extended nuclear family	118 090	12.2	45 304	11.6	9 037	10.1	676	9.8
One horizontally extended nuclear family	21 238	2.2	7 581	1.9	1 925	2.2	429	6.2
Two or more nuclear families	59 731	6.2	21 553	5.5	6 930	7.8	1 623	23.6
Non-family-nuclear households	73 374	7.6	19 516	5.0	6 335	7.1	573	8.3
Households composed of non-usual household members only	8 225	0.9	2 261	0.6	1 169	1.3	98	1.4
<b>Total</b>	<b>967 414</b>	<b>100.0</b>	<b>389 025</b>	<b>100.0</b>	<b>89 250</b>	<b>100.0</b>	<b>6 887</b>	<b>100.0</b>

Table 69 Population by Age, Sex and Broad Area and New Town; 1976, 1981 and 1986

Year and Age Group	Sex	<i>Hong Kong Island, Kowloon and New Kowloon</i>		<i>New towns</i>		<i>Other areas in New Territories</i>		<i>Marine</i>	
			%		%		%		%
<b>1976</b>									
Under 15	M	484 910	14.5	113 870	18.5	58 890	19.0	12 650	21.5
	F	458 150	13.8	108 720	17.6	56 380	18.2	11 520	19.5
15-24	M	385 470	11.6	63 190	10.3	30 380	9.8	7 330	12.4
	F	365 660	11.0	61 250	10.0	30 360	9.8	5 690	9.6
25-44	M	441 560	13.2	75 760	12.3	29 360	9.5	6 640	11.2
	F	370 650	11.1	68 100	11.1	25 110	8.1	5 050	8.6
45-54	M	188 870	5.7	31 630	5.2	16 830	5.4	2 920	4.9
	F	180 860	5.4	26 850	4.4	16 470	5.3	2 310	3.9
55-64	M	131 670	4.0	18 790	3.1	12 910	4.2	1 580	2.7
	F	136 100	4.1	17 600	2.9	11 140	3.6	1 220	2.1
65 and over	M	66 430	2.0	10 230	1.7	8 050	2.6	910	1.5
	F	119 910	3.6	17 730	2.9	13 820	4.5	1 230	2.1
Total	M	1 698 910	51.0	313 470	51.1	156 420	50.5	32 030	54.2
	F	1 631 330	49.0	300 250	48.9	153 280	49.5	27 020	45.8
	T	3 330 240	100.0	613 720	100.0	309 700	100.0	59 050	100.0
<b>1981</b>									
Under 15	M	432 356	11.9	146 028	15.6	54 319	14.8	9 662	19.4
	F	399 800	11.0	135 638	14.5	50 813	13.9	8 891	18.0
15-24	M	437 988	12.1	108 745	11.6	46 945	12.9	6 526	13.1
	F	399 704	11.0	100 649	10.7	41 862	11.5	5 338	10.7
25-44	M	560 918	15.3	139 187	14.8	44 849	12.3	6 319	12.7
	F	458 038	12.7	118 319	12.6	33 412	9.2	4 540	9.1
45-54	M	209 795	5.8	46 969	5.0	18 432	5.1	2 336	4.7
	F	182 321	5.0	38 717	4.1	16 191	4.4	1 905	3.8
55-64	M	152 873	4.2	30 099	3.2	15 802	4.3	1 427	2.9
	F	150 212	4.1	27 153	2.9	13 626	3.7	1 047	2.1
65 and over	M	100 376	2.8	19 183	2.0	12 226	3.4	808	1.6
	F	148 261	4.1	28 572	3.0	16 435	4.5	948	1.9
Total	M	1 894 306	52.1	490 211	52.2	192 573	52.8	27 078	54.4
	F	1 738 336	47.9	449 048	47.8	172 339	47.2	22 669	45.6
	T	3 632 642	100.0	939 259	100.0	364 912	100.0	49 747	100.0
<b>1986</b>									
Under 15	M	370 160	10.6	230 335	14.9	43 561	13.0	5 582	15.0
	F	340 403	9.8	211 071	13.6	40 789	12.2	5 046	13.5
15-24	M	338 058	9.7	141 701	9.2	35 252	10.5	5 078	13.6
	F	321 482	9.2	135 338	8.8	32 277	9.6	3 673	9.9
25-44	M	591 283	17.1	264 607	17.1	51 674	15.5	6 747	18.1
	F	530 362	15.3	253 652	16.4	42 385	12.7	4 520	12.1
45-54	M	194 418	5.6	71 680	4.6	15 316	4.6	1 956	5.2
	F	170 296	4.9	57 288	3.7	12 978	3.9	1 302	3.5
55-64	M	167 727	4.8	48 853	3.2	15 400	4.6	1 292	3.5
	F	161 133	4.6	47 824	3.1	14 161	4.2	795	2.1
65 and over	M	123 284	3.5	34 391	2.2	13 475	4.0	634	1.7
	F	168 945	4.9	49 756	3.2	17 402	5.2	655	1.8
Total	M	1 784 930	51.3	791 567	51.2	174 678	52.2	21 289	57.1
	F	1 692 621	48.7	754 929	48.8	159 992	47.8	15 991	42.9
	T	3 477 551	100.0	1 546 496	100.0	334 670	100.0	37 280	100.0

Table 70 Population Aged 15 and Over by Educational Attainment and Broad Area and New Town; 1976, 1981 and 1986

Year and Educational Attainment	<i>Hong Kong Island, Kowloon and New Kowloon</i>		<i>New towns</i>		<i>Other areas in New Territories</i>		<i>Marine</i>	
		%		%		%		%
<b>1976</b>								
No schooling/ Kindergarten	436 390	18.3	87 370	22.3	60 610	31.2	23 770	68.2
Primary	926 380	38.7	174 610	44.7	84 020	43.2	10 150	29.1
Lower secondary	381 130	16.0	63 780	16.3	24 110	12.4	740	2.1
Upper secondary	460 750	19.3	49 570	12.7	18 980	9.8	200	0.6
Matriculation	70 980	3.0	6 430	1.6	2 970	1.5	10	*
Tertiary: Non-degree courses	24 000	1.0	2 600	0.7	940	0.5	—	—
Tertiary: Degree courses	87 550	3.7	6 770	1.7	2 800	1.4	10	*
Total	2 387 180	100.0	391 130	100.0	194 430	100.0	34 880	100.0
<b>1981</b>								
No schooling/ Kindergarten	414 075	14.8	107 336	16.3	63 711	24.5	19 501	62.5
Primary	921 928	32.9	252 632	38.4	98 878	38.1	9 955	31.9
Lower secondary	501 425	17.9	134 225	20.4	42 513	16.4	1 368	4.4
Upper secondary	638 412	22.8	120 184	18.3	37 466	14.4	341	1.1
Matriculation	142 587	5.1	21 917	3.3	7 041	2.7	20	0.1
Tertiary: Non-degree courses	74 056	2.6	10 448	1.6	3 238	1.2	2	*
Tertiary: Degree courses	108 003	3.9	10 851	1.7	6 933	2.7	7	*
Total	2 800 486	100.0	657 593	100.0	259 780	100.0	31 194	100.0
<b>1986</b>								
No schooling/ Kindergarten	370 797	13.4	147 518	13.3	53 263	21.3	14 313	53.7
Primary	772 849	28.0	350 350	31.8	79 534	31.7	10 181	38.2
Lower secondary	479 367	17.3	229 901	20.8	44 457	17.8	1 568	5.9
Upper secondary	709 324	25.6	263 207	23.8	50 848	20.3	506	1.9
Matriculation	202 321	7.3	59 234	5.4	10 633	4.2	63	0.2
Tertiary: Non-degree courses	89 222	3.2	24 787	2.2	4 662	1.9	—	—
Tertiary: Degree courses	143 108	5.2	30 093	2.7	6 923	2.8	21	0.1
Total	2 766 988	100.0	1 105 090	100.0	250 320	100.0	26 652	100.0

\* Less than 0.05%.

**Table 71 School Attendance Ratios by Age and Broad Area and New Town**

(Number of full-time students per 100 population)

<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>
3– 5	92.4	92.0	87.3	55.1
6–11	99.6	99.7	99.3	84.9
12–16	94.2	93.5	90.5	43.4
17–18	59.1	53.1	46.0	7.3

**Table 72 Labour Force Participation Rates by Sex, Age and Broad Area and New Town**

(Number of economically active persons per 100 population)

<i>Sex and 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>
	%	%	%	%
<b>Male</b>				
15–19	36.1	37.9	47.0	88.3
20–24	88.1	88.6	87.1	99.2
25–34	97.8	98.2	92.0	97.3
35–44	97.7	98.3	93.7	98.0
45–54	94.5	93.7	90.5	95.7
55 and over	54.7	49.5	50.4	76.4
<b>Female</b>				
15–19	31.7	34.9	41.2	80.7
20–24	84.9	82.4	75.8	85.4
25–34	68.7	57.9	57.3	76.3
35–44	58.8	55.6	58.8	76.6
45–54	48.3	49.5	55.8	70.0
55 and over	21.3	18.8	23.9	37.4

Table 73 Working Population by Industry and Broad Area and New Town

Industry	Hong Kong Island, Kowloon and New Kowloon		New towns		Other areas in New Territories		Marine	
		%		%		%		%
Agriculture and fishing	3 150	0.2	4 578	0.7	24 570	16.1	15 404	68.6
Mining and quarrying	497	*	224	*	91	0.1	—	—
Manufacturing	599 046	33.9	301 966	43.0	44 247	28.9	1 394	6.2
Electricity, gas and water	11 277	0.6	5 502	0.8	938	0.6	7	*
Construction	103 243	5.9	48 629	6.9	12 180	8.0	216	1.0
Wholesale and retail trade, restaurants and hotels	433 321	24.6	129 682	18.4	26 390	17.3	525	2.3
Transport, storage and communication	135 646	7.7	60 977	8.7	9 247	6.0	4 497	20.0
Financing, insurance, real estate and business services	135 394	7.7	29 820	4.2	4 739	3.1	14	0.1
Services	337 414	19.1	118 370	16.8	30 128	19.7	255	1.1
Unclassifiable	5 789	0.3	3 437	0.5	322	0.2	147	0.7
Total	1 764 777	100.0	703 185	100.0	152 852	100.0	22 459	100.0

\* Less than 0.05%.

Table 74 Working Population by Occupation and Broad Area and New Town

Occupation	Hong Kong Island, Kowloon and New Kowloon		New towns		Other areas in New Territories		Marine	
		%		%		%		%
Professional, technical and related workers	161 217	9.1	49 210	7.0	10 094	6.6	7	*
Administrative and managerial workers	77 140	4.4	15 491	2.2	2 758	1.8	28	0.1
Clerical and related workers	286 139	16.2	87 955	12.5	11 466	7.5	27	0.1
Sales workers	222 586	12.6	70 476	10.0	15 575	10.2	422	1.9
Service workers	302 015	17.1	102 487	14.6	24 122	15.8	765	3.4
Agricultural workers and fishermen	4 214	0.2	5 684	0.8	24 836	16.2	15 416	68.7
Production and related workers, transport equipment operators and labourers	707 427	40.2	370 398	52.7	59 710	39.1	5 745	25.6
Armed forces and unclassifiable	4 039	0.2	1 484	0.2	4 291	2.8	49	0.2
Total	1 764 777	100.0	703 185	100.0	152 852	100.0	22 459	100.0

\* Less than 0.05%.

Table 75 Working Population\* by Monthly Income from Main Employment and Broad Area and New Town

Monthly Income from Main Employment	Hong Kong Island, Kowloon and New Kowloon		New towns		Other areas in New Territories		Marine	
		%		%		%		%
Under \$1 000	102 424	5.9	47 495	6.8	11 795	8.2	3 505	21.4
\$1 000–\$1 999	368 655	21.2	152 012	21.9	39 900	27.6	4 045	24.7
\$2 000–\$2 999	516 684	29.6	206 290	29.8	44 121	30.5	3 556	21.7
\$3 000–\$3 999	316 029	18.2	136 857	19.7	23 023	16.0	2 088	12.8
\$4 000–\$4 999	142 303	8.2	64 456	9.3	9 023	6.3	753	4.6
\$5 000–\$5 999	82 544	4.7	32 298	4.7	4 739	3.3	551	3.4
\$6 000–\$7 999	80 073	4.6	28 609	4.1	4 291	3.0	562	3.4
\$8 000–\$9 999	41 006	2.4	11 697	1.7	2 261	1.6	375	2.3
\$10 000 and over	89 901	5.2	14 224	2.0	5 110	3.5	940	5.7
Total	1 739 619	100.0	693 938	100.0	144 263	100.0	16 375	100.0
Median Income	2 716		2 653		2 380		2 137	

\* Excluding unpaid family workers.

Table 76 Population\* Aged 5 and Over Having Moved Home by Area of Origin and Area of Destination

Area of Origin	Area of Destination				Total
	Hong Kong Island	Kowloon and New Kowloon	New towns	Other areas in New Territories	
Hong Kong Island	90 244	56 133	79 268	8 330	233 975
Kowloon and New Kowloon	52 976	245 378	322 329	22 309	642 992
New towns	13 377	49 112	118 706	15 603	196 798
Other areas in New Territories	5 915	12 915	44 030	4 102	66 962
Marine	3 416	2 352	8 078	2 527	16 373
Total	165 928	365 890	572 411	52 871	1 157 100

\* Excluding persons in the Marine district and persons whose place of residence five years earlier was outside Hong Kong.

Table 77 Population\* Aged 5 and Over by Type of Living Quarter and Whether Moved Home

Type of Living Quarter	Moved		Not moved	
		%		%
Public and aided housing	421 442	36.4	1 623 825	45.4
Housing Authority home ownership estates	133 294	11.5	60 081	1.7
Private housing	501 452	43.4	1 664 719	46.4
Institutions	28 343	2.4	12 845	0.4
Housing Authority cottages/temporary huts	42 343	3.7	45 563	1.3
Private temporary housing	30 226	2.6	172 984	4.8
Total	1 157 100	100.0	3 580 017	100.0

\* Excluding persons whose place of residence five years earlier was outside Hong Kong.

Table 78 Population\* Aged 5 and Over by Age, Sex and Whether Moved Home

Age Group	Sex	Moved		Not moved	
			%		%
5-14	M	111 881	9.7	307 468	8.6
	F	102 340	8.8	285 726	8.0
15-24	M	89 635	7.7	406 476	11.4
	F	97 300	8.4	371 259	10.4
25-44	M	277 438	24.0	587 783	16.5
	F	254 492	22.0	501 879	14.0
45-54	M	51 996	4.5	219 674	6.1
	F	34 986	3.0	194 691	5.4
55-64	M	33 103	2.9	194 383	5.4
	F	34 244	3.0	182 301	5.1
65 and over	M	26 719	2.3	141 050	3.9
	F	42 966	3.7	187 327	5.2
Total	M	590 772	51.1	1 856 834	51.9
	F	566 328	48.9	1 723 183	48.1
	T	1 157 100	100.0	3 580 017	100.0

\* Excluding persons in the Marine district and persons whose place of residence five years earlier was outside Hong Kong.

Table 79 **Population\* Aged 5 and Over by Educational Attainment and Whether Moved Home**

<i>Educational Attainment</i>	<i>Moved</i>		<i>Not moved</i>	
		%		%
No schooling/Kindergarten	134 274	11.6	521 640	14.6
Primary	417 165	36.1	1 265 236	35.3
Lower secondary	232 505	20.1	677 159	18.9
Upper secondary	240 317	20.8	739 788	20.7
Matriculation	59 094	5.1	197 302	5.5
Tertiary: Non-degree courses	31 703	2.7	80 087	2.2
Tertiary: Degree courses	42 042	3.6	98 805	2.8
<b>Total</b>	<b>1 157 100</b>	<b>100.0</b>	<b>3 580 017</b>	<b>100.0</b>

\* Excluding persons in the Marine district and persons whose place of residence five years earlier was outside Hong Kong.

Table 80 **Labour Force Participation Rates\* by Sex, Age and Whether Moved Home**

(Number of economically active persons per 100 population)

<i>Sex and Age Group</i>	<i>Moved</i>	<i>Not moved</i>
<b>Male</b>		
15-19	36.3	36.9
20-24	86.4	88.4
25-34	97.0	98.1
35-44	97.5	97.9
45-54	93.5	94.3
55 and over	48.8	54.3
Overall (Standardized†)	79.3	81.1
<b>Female</b>		
15-19	35.2	32.5
20-24	76.4	86.5
25-34	58.8	67.9
35-44	55.3	57.0
45-54	48.7	47.9
55 and over	17.3	21.6
Overall (Standardized†)	47.5	52.1

\* The rates refer to the economically active population in land districts only. Persons whose place of residence five years earlier was outside Hong Kong were excluded.

† Using the age and sex distribution of the whole population as standard.

Table 81 Working Population\* by Occupation and Whether Moved Home

<i>Occupation</i>	<i>Moved</i>		<i>Not moved</i>	
		%		%
Professional, technical and related workers	62 125	10.0	143 003	7.7
Administrative and managerial workers	25 914	4.2	59 416	3.2
Clerical and related workers	91 091	14.6	285 754	15.3
Sales workers	65 856	10.6	233 072	12.5
Service workers	99 659	16.0	293 391	15.7
Agricultural workers and fishermen	4 501	0.7	29 386	1.6
Production and related workers, transport equipment operators and labourers	272 636	43.7	815 500	43.8
Armed forces and unclassifiable	1 225	0.2	4 298	0.2
<b>Total</b>	<b>623 007</b>	<b>100.0</b>	<b>1 863 820</b>	<b>100.0</b>

\* Excluding persons in the Marine district and persons whose place of residence five years earlier was outside Hong Kong.

Table 82 Working Population\* by Monthly Income from Main Employment and Whether Moved Home

<i>Monthly Income from Main Employment</i>	<i>Moved</i>		<i>Not moved</i>	
		%		%
Under \$1 000	33 551	5.4	119 959	6.6
\$1 000–\$1 999	100 835	16.4	410 795	22.5
\$2 000–\$2 999	162 484	26.3	573 223	31.2
\$3 000–\$3 999	129 542	21.0	334 453	18.3
\$4 000–\$4 999	65 814	10.7	144 494	7.9
\$5 000–\$5 999	36 890	6.0	78 918	4.3
\$6 000–\$7 999	37 485	6.1	70 784	3.9
\$8 000–\$9 999	17 605	2.9	34 244	1.9
\$10 000 and over	31 794	5.2	62 587	3.4
<b>Total</b>	<b>616 000</b>	<b>100.0</b>	<b>1 829 457</b>	<b>100.0</b>
<b>Median Income</b>	<b>3 066</b>		<b>2 589</b>	

\* Excluding persons in the Marine district, unpaid family workers, and persons whose place of residence five years earlier was outside Hong Kong.



# **CENSUS PROCEDURES**



# A. Taking the By-Census

## Background

Since the first postwar Census was conducted in Hong Kong in 1961, a full Census has been conducted every 10 years and a sample By-Census on the fifth year after the full Census. The last decennial population Census was held in 1981 and, following the past practice, the By-Census for this decade was conducted in 1986.

## Legal status

The 1986 By-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 members of the public to answer all census questions to the best of their knowledge and for the census officers and other staff concerned to preserve the confidentiality of individual information.

## Timing

The Marine By-Census was conducted just before the Chinese New Year, from 4 to 8 February 1986 and the Land By-Census, from 7 to 16 March 1986. This timing accords with that of the 1981 Census and thus ensures comparability between censuses.

## Coverage

The 1986 By-Census covered all people present in Hong Kong at the time of the By-Census, including transients and locally domiciled military personnel and their dependants. Information was also obtained on the age and sex of local residents who were temporarily away from Hong Kong on the By-Census reference day. For transients, only a head count was conducted. The enumeration of the By-Census was taken on a one-in-seven sample of the population.

## Census content

Specimen questionnaire for the Land By-Census is given at Appendix II. The questionnaire can be divided into two parts, namely living quarter and household data and personal data as follows:

(a) Living quarter and household data

1. Type of living quarter
2. Occupancy of a living quarter
3. Sharing of a living quarter
4. Type of household
5. Usual household size
6. Household size on reference night
7. Type of accommodation
8. Tenure
9. Rent
10. Household composition (derived item)

For Marine households, questions on living quarters and housing characteristics were replaced by:

1. Type of vessel
2. Occupancy of a vessel
3. Sharing of a vessel

(b) Personal data

1. Name (for identification only)
2. Relationship to head of household
3. Whether a usual household member
4. Whereabouts of absentee members
5. Sex
6. Month and year of birth
7. Place of birth
8. Marital status
9. Permanent address five years ago
10. School attendance
11. Educational attainment
12. Field of education
13. Activity status
14. Industry
15. Occupation
16. Hours of work
17. Whether seeking more work
18. Earnings from main employment
19. Other cash income

## Planning and organization

Authority to conduct a population Census is vested in the Commissioner for Census and Statistics, who is himself the head of the Census and Statistics Department. The Census Planning Section of the department was responsible for overall planning and all statistical and professional work related to population censuses. Preliminary planning of the 1986 By-Census started in early 1983. The By-Census generally followed the United Nations recommendations for the 1980 round of population censuses and drew on experiences from the 1981 Census. After consultation with the Statistical Advisory Board, other government departments, universities and some interested organizations, a Census Plan was drawn up in July 1983, summarizing the proposals for the content of the census schedule, field operational procedures, data processing methods and staff and financial requirements. The plan was submitted to and approved by the Governor-in-Council in October 1983.

Two other sections were set up in the latter half of 1984 to prepare for the By-Census operation. The Census Field Work Section was responsible for updating the living quarter list, delineating enumerator blocks, training temporary staff, organizing the field operation and supervising the field work for the By-Census. The Census Administration Section was responsible for procuring temporary accommodation to serve as field centres, recruiting temporary staff, administering the accounts and arranging for stores and stationery, printing and publicity.

## The Pilot Census

A Pilot Census was conducted in March 1985 to test the various aspects of a census operation in preparation for undertaking the By-Census in March 1986. It covered a sample of about 10 000 households distributed in eight different districts specially selected to include in the Pilot Census most of the problem areas of field work.

A two-phase operation for the 1986 By-Census proposed in the plan was put to test in the Pilot Census. One significant result of the Pilot Census was that the relative workload between the short-form and the long-form enumeration sample designs was found to be 1:1.5 instead of 1:2, as originally estimated. A one-phase sample covering all census questions, which was more cost-effective with the much reduced cost margin between short-form and long-form enumeration, was adopted for the By-Census, the sample size being one in seven of the population.

Both the field operational procedures and the questionnaires were improved and modified in the light of the findings of the Pilot Census.

## **Computerization of the frame of living quarters**

A large amount of manual effort was spent in each Census in the selection of samples and transcription and typing of addresses of living quarters for the preparation of enumerator assignments. To streamline this operation for cost and efficiency considerations, a computer-based system was developed for the 1986 By-Census whereby the sampling frame of living quarters was computerized and the selection of samples, delineation of enumerator blocks and printing of enumerator assignments were all handled by computer.

The frame of living quarters consists of two parts. The first part is the addresses of individual quarters in permanent buildings and the second part, the addresses of segments in temporary structure areas—each segment being a cluster of 8 to 15 temporary structures delineated by permanent and easily identifiable boundaries. The frame was computerized in 1985. To facilitate the computerization, a full reticulation exercise was carried out in 1984 in which all areas of Hong Kong were visited by field staff to record the addresses of quarters in permanent buildings and to delineate segments in temporary structure areas. Exact locations of each temporary structure within a segment and of each permanent building were marked clearly on the maps. The listing of quarters in permanent buildings was continuously updated until some time before the By-Census operation, based on information on the demolition of old buildings and the construction of new buildings contained in regular returns from the Buildings and Lands Department and the Housing Department. For area segments, regular field visits were made to record any changes after the first round of updating.

## **Sampling**

The one-in-seven sample for the By-Census was selected according to the one-phase stratified, replicated, systematic sampling method. The sampling frame was stratified according to the 19 District Board districts. The purpose of stratification was to enable the selection of a more representative sample, hence more precise estimates could be obtained. The choice of a District Board district as the stratifying factor was to provide sub-regional estimates at the district level for administrative and planning purposes. Details of the sampling method and estimation procedures are given in the next chapter.

## **Field organization**

The field staff consisted of one Chief Census and Survey Officer, five Senior Census and Survey Officers, 12 Census and Survey Officers and 30 Assistant Census and Survey Officers. They were responsible for supervising all the temporary staff who were organized by enumeration divisions. Each division comprised one chief enumerator who was the division leader, two field editors who were responsible for editing the completed questionnaires, one checker whose duties were to conduct field checks and to verify the collected information and 12 enumerators (on average). A total of 225 chief enumerators, 675 field editors and checkers and 2 756 enumerators took part in the By-Census. Overall, the ratio of the total number of supervisory staff to enumerators was 1:3.

For the By-Census field operation, the whole of Hong Kong was divided into five enumeration areas, each with six field centres. Each area was under the charge of a Senior Census and Survey Officer. Each field centre was headed by an Assistant Census and Survey Officer who had to oversee seven to eight enumeration divisions.

## **Recruitment**

Students from post-secondary colleges and the Colleges of Education were recruited to serve as the enumeration staff for the By-Census. Past experience showed that a significant number of recruits did not complete the training classes. Therefore, a larger number of students had to be recruited for training to allow for drop-outs.

Liaison with selected post-secondary colleges and the Colleges of Education started around end-1984. Keen support for the operation was given by many of these colleges. Recruitment talks were delivered to the students and as a result, some 5 600 applications were received. However, only 69 per cent of the applicants completed the training classes. As there was about 6 per cent of the selected trainees declined the offer of appointment, a number of supplementary training classes was organized to ensure that sufficient manpower was available for the field operation.

## Training and selection

The number of enumeration staff that had to be trained inevitably created problems of organization. Consequently, a relay approach was adopted whereby permanent field staff would first train the chief enumerators who would in turn train the enumerators. It was feared that without standardized training, individual chief enumerators might not understand the census concepts well enough to give adequate and uniform instructions to their classes. With the assistance of Radio Television Hong Kong (a government department) training videotapes were produced for training purposes, covering instructions to be issued to enumerators. A set of training exercises was also produced.

Training of chief enumerators and checkers started in October 1985 to allow a sufficient time for the appointed chief enumerators to prepare for their own training classes for enumerators. The training course for chief enumerators and checkers lasted 14 hours while that for field editors and that for enumerators lasted 13 hours and 10 hours respectively. Each course ended with a test and, based on its results, suitable candidates were selected.

The training videotapes were again broadcast through the Education Television channel in February to give the enumeration staff a chance to refresh their memories. A final briefing session was held for the enumeration staff on the day before the start of the By-Census to give a review of the enumeration procedures and, at the same time, to allow them to be sworn in.

## Publicity

The purpose of the publicity programme was to inform the public of the 1986 By-Census with a view to soliciting their support and cooperation. To ensure that the message got across to all sections of the population, the publicity programme involved a wide range of media, including posters, newspapers, radio interviews and announcements and short films on television. The publicity covered general and such specific issues as the gazetting of the census orders (to emphasize the legal basis for the By-Census), the destruction of questionnaires for the Pilot Census (to illustrate the confidentiality of individual information) and the identification of enumerators (to dissipate any anxiety over the enumerator's identity).

In order to get the maximum impact of publicity, sampled households (those living in permanent quarters) were notified, in advance, that they had been selected for the By-Census. A further letter giving the name and the Census Officer certificate number of the enumerator who was going to visit was sent to the household two or three days before the actual operation. For households living in temporary structures, such notification could not be given, however, because of postal problems.

## Enumeration method

The 1986 By-Census was taken on a *de facto* basis and a 'shifting census moment' approach was adopted, that is to say, information was gathered on people who were in the household the night before the enumerator's visit. Only a single visit was therefore required. The household was also asked the number of its usual members (those who had been living in the household for more than half of the time during the three months before the enumeration) and the whereabouts of absentee members.

The By-Census consisted of two separate operations, the Marine By-Census and the Land By-Census. In both operations the traditional enumerator method of data collection was adopted. For the Marine By-Census, the harbours and anchorages were divided into a number of small sections for sampling and operational convenience. The chief enumerator, accompanied by a small team of enumerators, toured his section with a boat and dropped his enumerators at different vessels to carry out the enumeration. Each vessel enumerated was identified by a red census label to ensure that no vessels within the section was duplicated nor omitted.

For the Land By-Census, enumerators visited the addresses on their assignment lists and enumerated all households living in these quarters. They had to make several visits to each household at different times and dates to interview all members of the household. At the end of the field operation, a self-administered questionnaire was left with those households which could not be contacted even after repeated visits for the householders to complete and return by post. About 2 per cent of the sampled households could not be contacted and about one-third of the self-administered questionnaires were completed and returned. These completed questionnaires provided a basis for estimating the characteristics of non-contact households.

## Special enumeration

There were some classes of the population which needed special arrangements for enumeration, namely members of the armed forces, trainees in training schools for the police, fire services and customs and excise services and inmates in hospitals and prisons. They were enumerated by the staff of these institutions, who were specially trained and appointed for the operation.

For persons living in religious homes, hostels, Old People's homes, Boys' homes, Girls' homes and other welfare institutions, ordinary enumerators were deployed to carry out the enumeration, with assistance from the staff of the institutions.

## Quality control of data

To control the quality of the enumeration, a system of field checks was designed. The system included the following components:

- (i) the chief enumerator accompanied and observed his team enumerators at work during the first stage of the operation and gave the enumerators remedial training where necessary; at the second stage, weaker members of the team were given more attention and their work further inspected;
- (ii) the field editor scrutinized the submitted questionnaires and ensured that they were properly completed and that the coding of data was accurate;
- (iii) the checker re-visited a sample of the enumerated households to verify the information recorded by the enumerators; all living quarters reported as vacant, demolished, non-domestic or unoccupied were also verified; and
- (iv) the chief enumerator reviewed the work of his team enumerators at the end of the field operation to ensure that all their assignments were completed.

## Enumeration results

A total of 240 122 quarters was visited by the enumerators during the By-Census. The results of the visits are shown in the following:

<i>Result of visit</i>	<i>Number of quarters</i>	<i>Percentage</i>
Quarters occupied by households	191 134	79.5
Unoccupied residential quarters	23 665	9.9
Quarters used for non-domestic purposes	21 032	8.8
Quarters where no households could be contacted after repeated visits	4 291	1.8
Total	240 122	100.0

## Post-enumeration survey

The purpose of conducting a post-enumeration survey was to give some measure of the reliability of the By-Census results. The survey was conducted five days after the By-Census to minimize any memory errors. It covered 0.9 per cent of the quarters sampled for the By-Census. Visits to these selected quarters were made by permanent field staff to re-enumerate the households there. No reference was made to the original questionnaires during the re-enumeration. The results obtained from the survey were matched with those of the By-Census on a person-to-person basis to assess the accuracy of the first enumeration. The check showed that there was an overall undercount of 0.6 per cent of the population.

## Data input and processing

The information collected during the By-Census was recorded on the questionnaires in long-hand by the enumerators. The enumerators were also responsible for coding all items except occupation, industry and address five years ago. The items on occupation and industry were coded by the field editors at the field centres and the item on address five years ago was coded by the departmental field staff in the office after the By-Census.

At the end of the field operation, the enumerators were required to extract the number of people in each household from the questionnaires to put in a 'summary' record book for advance input to the computer. Based on this, a preliminary count of the population was released in early May 1986.

All coded information was converted into a computer readable medium using the 'key-to-disc' method. The punched data were verified on a 100 per cent basis to minimize key-punching errors.

An ICL 2988 computer was used to process the data. The processing system consisted of three parts, namely validation, imputation and tabulation. At the validation stage, the input data passed through a series of checks which would identify such errors as duplication or omission of records or out-of-range values in data fields and correct the hierarchy of data structure. All errors identified were listed out for manual amendment. If the errors could not be amended on the basis of the long-hand information, they would be left to be imputed at the imputation stage. Imputation involved identifying inconsistencies between different items of information and automatically replacing inconsistent values by new values in accordance with the prescribed imputation rules.

The last phase of the processing system was tabulation. A software package CENTS4, which was originally developed on IBM computers by ISPC (International Statistical Programs Centre of the U.S. Bureau of the Census) but was converted and tuned to be run on ICL 2900 series computers, was used in conjunction with a set of tailor-made COBOL programs. The tables were produced in stages according to the priorities set for the release of the By-Census results.

## Tabulations

The tabulations of the 1986 By-Census were produced in the following sequence:

- (i) Summary Tabulations—Some 100 simple one-way tabulations showing the broad range of socioeconomic and demographic characteristics of the population by Tertiary Planning Unit or District Board district constituency area.
- (ii) Main Tabulations (Part I)—About 200 three-to four-way cross-tabulations of related variables showing the inter-relationships among different characteristics of the population.
- (iii) Main Tabulations (Part II)—Around 160 three-to four-way cross-tabulations specially requested by other government departments.
- (iv) Tabulations of Rates and Averages—Some 60 two-to three-way tables of statistical rates and averages (e.g. unemployment rate, average household income) summarizing the inter-relationships between different socioeconomic characteristics.
- (v) Standard Error Tabulations—A set of 120 two-to three-way tables showing the standard errors of various By-Census estimates derived from the one-in-seven sample.

## Publications

Results of the 1986 By-Census were released in a series of publications as shown in Appendix III. Broadly, they can be grouped into the following categories:

- (i) Advance reports: Reports showing the basic data such as population by age and geographical area.
- (ii) Summary Results: A summary analysis of the results of the 1986 By-Census based on the information of the summary tabulations.
- (iii) Statistics by detailed geographical area: A series of reports containing simple one-way tables of a broad range of socioeconomic and demographic characteristics at different levels of geographical division.
- (iv) District tables: A set of reports showing two-way cross-tabulations of selected variables for each District Board district.
- (v) The Social Atlas and the Graphic Guide: A graphical presentation of the 1986 By-Census results which aimed to provide the general reader quick visual comparisons of selected characteristics over time and between geographical areas.
- (vi) Detailed results: Interpretation of the 1986 By-Census results and detailed tables were published in the 'Main Report'.

## Finance

The direct expenditure on the 1986 By-Census was given as follows:

<i>Item</i>	<i>Expenditure (HK\$'000)</i>
Personal emoluments	6 098
Honoraria for temporary enumeration staff and training expenses	5 327
Related operational expenses	2 502
Rental	2 627
Data processing	4 724
Total	21 278

# B. Sample Design of the By-Census

## Introduction

In the 1966 By-Census, sampling techniques were first used for collecting population data on a sample basis. With the exception of the 1971 Census which was a complete enumeration, sampling was again used in the 1976 By-Census and the 1981 Census. In the 1966 By-Census, a two-stage sample design was used; whereas in the 1976 By-Census, a one-phase sample design was adopted. In the 1981 Census, a two-phase sample design was employed which included a complete count of the population by age and sex and a sample enumeration of the broad range of social, economic and demographic characteristics. In the preliminary planning of the 1986 By-Census, the decision was to use a two-phase design, but this was subsequently changed to a one-phase design.

## Sampling frame and unit

There were two units of enquiry in the By-Census, namely the household and the person. However, it was impossible to keep an up-to-date listing of persons or households because they were mobile and hard to be traced. Therefore, for sample selection purpose, a quarter was chosen as the sampling unit in built-up areas such as urban areas, new towns and some developed areas in the New Territories. For non-built-up areas such as rural areas and temporary structure areas where it was difficult to keep an up-to-date listing of unique and identifiable temporary structures due to their frequent changes, an area segment consisting of 8 to 15 contiguous temporary structures identifiable by relatively more permanent landmarks was used as the sampling unit.

An ideal sampling frame should contain every eligible unit of enquiry without omission or duplication. In addition, it must be continuously updated.

The sampling frame for the By-Census consisted of two parts:

- (a) a list of individual permanent quarters in built-up areas, each identified by a unique address; and
- (b) a detailed record of area segments of temporary quarters in non-built-up areas.

The frame was computerized in 1984/85 when every building and structure in Hong Kong was visited and its address recorded. Since then, the list of permanent quarters has been continuously updated based on information on the demolition of old buildings and the construction of new buildings contained in the regular returns from the Housing Department and the Buildings and Lands Department. For the list of area segments, regular field visits were made to record any changes.

## Sample design for the 1986 By-Census

The starting point for determining the sample design for the By-Census was to identify the precision requirements. Theoretically, the larger the sample, the smaller would be the sampling error. As a wide range of data was collected in the By-Census, a very large sample would be required to provide precise estimates for all the characteristics it measured. Given that one of the most important aims of the By-Census was to collect basic data such as age and sex of people in small areas, greater weight was given to the effect of the sample size on the estimates of total head count and their breakdown by age and sex in small areas which were the important variables for local planning. Other socioeconomic variables were usually required at larger area levels in actual planning although there had been a growing demand for these data at small area levels. It was therefore desirable to adopt a design under which the basic characteristics could be estimated with higher precision.

Since there was a difference in the precision requirements of different types of data, a two-phase design, using a larger sample for collecting basic data with a short-form questionnaire and a small sub-sample for collecting detailed data with a long-form questionnaire, seemed best to serve the need. However, results of the Pilot Census showed that the cost ratio of the long-form to short-form questionnaire was rather low, implying that the two-phase design was not highly cost-effective. Moreover, a two-phase design would incur additional technical and operational complexities and costs, including the need for a more complex data processing system, and the problem of inconsistent estimates derived from the large and the small samples. It was finally decided to use a one-phase design.

Taking into consideration the precision requirements, it was decided to adopt a one-in-seven (or 14.3 per cent) sample selected with the one-phase stratified, replicated, systematic sampling method. The sampling frame was stratified according to the 19 District Board districts. The purpose of stratification was to enable the selection of a more representative sample and hence more precise estimates could be obtained. The choice of a District Board

district as the stratifying factor was to provide sub-regional estimates at the district level for administrative and planning purposes.

Within each stratum, ten replicates of quarters and segments were selected, with each replicate representing a 1 in 70 (or 1.43 per cent) systematic sample of all quarters/segments in that stratum. The use of replicated samples simplified the computation of sampling errors of the estimates.

## Estimation procedures

With the adoption of a one-phase design, the estimation procedure simply involved the grossing up of all response records by 7, which was the inverse of the sampling fraction. However, there was a small number of non-response cases for which more complicated treatments were required.

### *Treatment of non-response*

Non-responses in the By-Census arose from non-contacts. There were no refusal cases because responding to the census questions was required by law. A household would be treated as non-contact only when an enumerator had visited it for more than 4 times at different times and dates. The non-contact rate was about 2 per cent.

For each non-contact household, a self-administered questionnaire (SAQ) was left for the householder to complete and return by mail. In order to encourage response, the SAQ contained only a few basic and straightforward questions.

Eventually, about one-third of the despatched SAQs were returned. For grossing up purpose, a weighting factor was attached to each returned SAQ. Since the most detailed level of geographical classification in the tabulations was the Tertiary Planning Unit (TPU), the weighting adjustment was made on a TPU basis. This meant that every returned SAQ in TPU<sub>i</sub> was given a weight of  $D_i/R_i$  if out of  $D_i$  SAQs despatched,  $R_i$  were returned.

As the SAQ contained only a few basic questions, the other remaining items in the census questionnaire had to be imputed for the non-response households who had returned the SAQs. The 'hot-deck' method was used to impute the missing items. Information on the variables in the SAQ which correlated with the missing items was used to stratify the returned SAQs into imputation classes. For each imputation class the most likely value for the item under consideration was stored in the computer as the starting value. The SAQs together with the respondents' questionnaires were then sorted by geographical order and treated sequentially. If the first record processed was a SAQ, the starting value would be assigned as the imputed value for the missing item. If the first record had a response for that item, the responded value would replace the starting value. The value stored in the computer was updated by the responded values in the subsequent records processed. When a missing item was encountered, the latest value stored would be used as the imputed value.

After all the SAQs were weighted and their missing items imputed, the estimation procedures were straightforward. For count variables, aggregation of the weights of all records (both respondents' questionnaires and SAQs) would give an estimate of the population total. Ratios of two variables were estimated by taking the ratio of the two corresponding aggregated totals.

### *Estimation of standard errors*

In estimating the variances of the estimates, account had to be taken of the variance due to sampling as well as the variance arising from the imputation process. Different variance estimators were used for the count variables and the ratios of variables.

#### *(A) For count variables:*

Let  $\hat{X}$  be the estimated total count of a particular characteristic

$\hat{X}_d$  be the corresponding estimate for district  $d$

$x'_{di}$  be the sample count based on the respondents' questionnaires (excluding the SAQs) from replicate  $i$  of district  $d$

$x'_d$  be the sample count based on the respondents' questionnaires from all replicates of district  $d$

(a) For the characteristics contained in the SAQ, the variance of  $\hat{X}$  is given by:

$$\text{var}(\hat{X}) = \sum_{d=1}^D \left(1 + \frac{\bar{m}^2 r}{m_1 \bar{r}^2}\right) \frac{1-f}{c(c-1)} \sum_{i=1}^c (70x'_{di} - 7x'_d)^2$$

where  $f$  = sampling fraction =  $1/7$

$c$  = no. of replicates = 10

$n$  = no. of sampled units in district  $d$

$r$  = no. of respondents in district  $d$

$m$  = no. of non-contact cases in district  $d$

$$\bar{r} = \frac{r}{n} = \text{response rate for district } d$$

$$\bar{m} = \frac{m}{n} = \text{non-contact rate for district } d$$

$m_1$  = no. of returned SAQs in district  $d$

$D$  = total no. of districts = 19

The standard error of  $(\hat{X})$  was given by

$$\text{s.e. } (\hat{X}) = \sqrt{\text{var } (\hat{X})}$$

(b) For the characteristics not contained in the SAQ, the variance of  $X$  is given by:

$$\text{var } (\hat{X}) = \sum_{d=1}^D \frac{1}{\bar{r}^2} \left(1 + \frac{\bar{m}^2 r}{m_1(1-f)}\right) \frac{1-f}{c(c-1)} \sum_{i=1}^c (70x'_{di} - 7x'_d)^2$$

(B) For ratios of two variables:

Let  $Y$  be another characteristic of interest

$\hat{R} = \frac{\hat{X}}{\hat{Y}}$  be the estimate of the ratio of the two variables  $X$  and  $Y$

$\hat{R}_d = \frac{\hat{X}_d}{\hat{Y}_d}$  be the estimated ratio for district  $d$

The variances of  $\hat{R}_d$  and  $\hat{R}$  were given as:

$$\text{var } (\hat{R}_d) = K_d \frac{1-f}{c(c-1)} \frac{1}{\hat{Y}_d^2} \left\{ \sum_{i=1}^c (70x'_{di})^2 - 2\hat{R}_d \sum_{i=1}^c (70x'_{di})(70y'_{di}) + \hat{R}_d^2 \sum_{i=1}^{10} (70y'_{di})^2 \right\}$$

with  $K_d = 1 + \frac{\bar{m}^2 r}{m_1 \bar{r}^2}$  if both  $X$  and  $Y$  are contained in the SAQ

$$= \frac{1}{\bar{r}^2} + \frac{\bar{m}^2 r}{\bar{r}^2 m_1 (1-f)} \quad \text{if either } X \text{ or } Y \text{ is not contained in the SAQ}$$

$$\text{var } (\hat{R}) = \frac{1}{\hat{Y}^2} \sum_{d=1}^D \left\{ \text{var } (\hat{X}_d) + \hat{R}^2 \text{var } (\hat{Y}_d) - 2\hat{R} \text{cov}(\hat{X}_d, \hat{Y}_d) \right\}$$

$$\text{where } \text{var } (\hat{X}_d) = K_d \frac{1-f}{c(c-1)} \sum_{i=1}^c (70x'_{di} - 7x'_d)^2$$

$$\text{var } (\hat{Y}_d) = K_d \frac{1-f}{c(c-1)} \sum_{i=1}^c (70y'_{di} - 7y'_d)^2$$

$$\text{cov } (\hat{X}_d, \hat{Y}_d) = K_d \frac{1-f}{c(c-1)} \sum_{i=1}^c (70x'_{di} - 7x'_d)(70y'_{di} - 7y'_d)$$

## Sample design for the 1986 Marine By-Census

As the marine population was expected to account for less than one per cent of the total population, the sampling method for the 1986 Marine By-Census was designed with a view to keeping down the enumeration cost so that it would not take up an impropotional share of resources.

### *Sampling frame and unit and design*

Since the marine population lived on vessels, a vessel was conveniently taken as the sampling unit. However, the mobility of the vessels created problems in establishing a sampling frame. To solve this problem, the Marine By-Census was conducted just before the Chinese New Year when nearly all vessels had come back to the waters of Hong Kong and anchored in the anchorages.

The sampling frame was established through the use of aerial photos of all anchorages in Hong Kong taken at the Chinese New Year of 1985. Based on these aerial photos, four strata were formed. The first two strata covered vessels in the major anchorages. The third stratum covered vessels in the remote anchorages and the fourth those in the anchorages near the urban areas. With this stratification scheme, it was possible to include all major anchorages and to limit the number of remote anchorages (which required a higher cost to enumerate) in the sample.

To reduce the travelling cost and field problems in identifying individual vessels, a cluster sampling method was adopted. Within each stratum, marine sections were formed which were demarcated by fire lanes in waters and landmarks on the coast. The number of marine sections in each stratum was multiple of 14.

For each stratum, two replicates of marine sections, each with a sampling fraction of 1/14, were selected. The overall sampling fraction was one in seven which was the same as that for the Land By-Census. The pair selection design simplified the estimation of standard errors.

### *Estimation*

The ratio estimation method was used to improve the precision of the estimates. Aerial photos were taken on the eve of the Chinese New Year of 1986 and the photo count of vessels for each stratum was used as the control variable.

#### *(A) For count variables:*

Let  $\hat{Y}$  be the estimated count of a particular characteristic Y for the whole marine population

$y_d$  be the sample count for stratum d

$y_{di}$  be the count from the ith replicate in stratum d

$X_d$  be the total count of vessels from aerial photos for stratum d

$x_d$  be the number of vessels enumerated in stratum d

$x_{di}$  be the number of vessels enumerated from the ith replicate in stratum d

$$x_d = \sum_i x_{di} \quad y_d = \sum_i y_{di}$$

$$\hat{Y}_d = X_d \frac{y_d}{x_d}$$

$$\hat{Y} = \sum_d \hat{Y}_d$$

#### *(B) For rates and averages:*

Let U be another characteristic of interest

The ratio of Y and U, denoted by  $R = \frac{Y}{U}$ , was estimated by  $\hat{R}$ :

$$\hat{R} = \frac{\hat{Y}}{\hat{U}} = \frac{\sum_d \hat{Y}_d}{\sum_d \hat{U}_d}$$

*Estimation of standard errors*

(A) For count variables:

$$\text{var} (\hat{Y}) = \sum_d \left( \frac{X_d}{x_d} \right)^2 (1 - f) \left\{ (y_{d1} - y_{d2})^2 + \hat{R}_d^2 (x_{d1} - x_{d2})^2 - 2 \hat{R}_d (x_{d1} - x_{d2}) (y_{d1} - y_{d2}) \right\}$$

where  $\hat{R}_d = \frac{y_d}{x_d}$

(B) For rates and averages:

$$\text{var} (\hat{R}) = \left( \frac{\hat{Y}}{\hat{U}} \right)^2 \left\{ \frac{\text{var} (\hat{Y})}{\hat{Y}^2} + \frac{\text{var} (\hat{U})}{\hat{U}^2} - \frac{2 \text{cov} (\hat{U}, \hat{Y})}{\hat{U} \hat{Y}} \right\}$$

where  $\text{var} (\hat{Y})$  and  $\text{var} (\hat{U})$  were estimated by the formula in (A) above and  $\text{cov} (\hat{U}, \hat{Y})$  was given by:

$$\text{cov} (\hat{U}, \hat{Y}) = \sum_d \left( \frac{X_d}{x_d} \right)^2 (1 - f) \left\{ (u_{d1} - u_{d2}) (y_{d1} - y_{d2}) + \hat{R}_{du} \hat{R}_{dy} (x_{d1} - x_{d2})^2 - \hat{R}_{du} (y_{d1} - y_{d2}) (x_{d1} - x_{d2}) - \hat{R}_{dy} (u_{d1} - u_{d2}) (x_{d1} - x_{d2}) \right\}$$

with  $\hat{R}_{du} = \frac{u_d}{x_d}$ ,  $\hat{R}_{dy} = \frac{y_d}{x_d}$ ,  $f = 1/7$



# C. Assessment of Quality of the By-Census Data

## Introduction

The 1986 By-Census was a large scale and complex exercise despite that it was taken on a sample basis. Whilst every effort was made to ensure that the enumeration was complete and that the results were accurate, there remained a chance that some errors could still be found in the data. If the errors are kept within reasonable limits, the data are valuable. There is therefore a need to evaluate the quality of the By-Census data in order to throw light on the magnitude of the errors and to provide users with some indication of the confidence with which the data can be used for different purposes.

## Sources of errors

Errors found in the By-Census data can be broadly distinguished as sampling errors and non-sampling errors. Sampling error occurs when observations are made on the basis of a sample and not of 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. It is, therefore, not an 'error' in the usual sense of a 'mistake'. Rather, it is a recognized and controlled variable element in the sampling method. Non-sampling error, on the other hand, is essentially a human error that occurs at the time of enumeration and during the processing of the raw data. It may affect the completeness of the coverage and/or the accuracy of the measurement. Typically, non-sampling errors may arise, at the data collection stage, from incomplete addresses and inaccurate maps given to enumerators, from careless omissions of persons or households in the enumeration, from difficulty in contacting certain households and failure to gain the cooperation of respondents to give truthful answers, from deliberate falsification of data, from conceptual problems involved in the questionnaires or the instructions, from memory failure of respondents and from coding errors. During data processing, errors can arise from careless key-punching and from erroneous computer programs or wrong transcription of data for the compilation of reports. Some non-sampling errors affect the total or sub-total figures for the population, whereas others affect the classification of individual values in respect of their characteristics. The former are called coverage errors and the latter content errors. However, the dichotomy between coverage and content errors is not rigid.

Sampling error is a random error whose magnitude can be controlled by a suitable choice of sample size and the sampling method. In general, a larger sample size, using the same sampling method, will produce estimates with a smaller sampling error. On the other hand, 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 be determined.

## Sampling errors

The particular sample of the population selected for the 1986 By-Census is one of all possible samples of the same size that could have been selected from the same population using the same sampling method. Estimates derived from different samples must 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 of the population value. Sampling error is actually measured by the standard error which is an average measure of the squared deviations of all these sample estimates from their average value. It reflects the precision of the estimation in general. The magnitude of the standard error of a variable depends on (a) the size of a sample and the sampling method used and (b) the intrinsic variability of the characteristic being considered. The sample design for the 1986 By-Census and the formula for estimating the standard errors of the By-Census variables are already discussed in the last chapter.

The standard error can also be interpreted through the concept of a confidence interval: the sample estimates together with the standard error enable interval estimates to be constructed that will include the population value with a prescribed confidence. To illustrate this point, let one consider all possible samples selected and surveyed under the same conditions. Suppose an interval estimate of two standard errors above and below the sample estimate from *each* sample is constructed, then according to statistical theory, about 95 per cent of the interval estimates from all possible samples will include the population value. Such an interval constructed is called a 95 per cent confidence interval. This does not mean, however, that a particular interval estimate must necessarily include the population value, but overall the computed interval estimates from *all* possible samples will contain the population value with the indicated confidence.

Table 1 shows the sample estimates, the estimated standard errors and the 95 per cent confidence interval estimates of some selected characteristics which have been chosen to illustrate the range of precision of the 1986 By-Census data at various levels of detail.

Table 1(a) **Sample estimates of proportions and rates, estimated standard errors and 95 per cent confidence interval estimates; 1986**

<i>Variables</i>	<i>Sample estimate</i> %	<i>Standard error</i> %	<i>Ratio: standard error to estimate</i> %	<i>95 per cent Confidence Interval</i>	
				<i>Lower limit</i> %	<i>Upper limit</i> %
Proportion of persons born in Hong Kong	59.4	0.12	0.2	59.1	59.6
Proportion of females aged 15 and over ever-married	69.6	0.09	0.1	69.4	69.7
Proportion of females aged 20–24 ever-married	21.3	0.21	1.0	20.9	21.7
Proportion of females aged 20–24 with primary education who were ever-married	39.5	0.66	1.7	38.2	40.7
Proportion of ever-married males divorced	1.6	0.03	1.6	1.6	1.7
Proportion of population with no schooling/ pre-primary education only	20.1	0.07	0.3	20.0	20.3
Proportion of persons aged 10 studying full-time	99.4	0.07	0.1	99.3	99.6
Proportion of persons in Tsuen Wan District aged 10 studying full-time	99.2	0.29	0.3	98.7	99.8
Crude labour force participation rate for the whole population	66.4	0.06	0.1	66.3	66.5
Labour force participation rate for females aged 30–34	57.4	0.26	0.4	56.9	57.9
Unemployment rate	4.0	0.03	0.9	3.9	4.1
Unemployment rate for males aged 20–24	5.1	0.12	2.3	4.9	5.4
Headship rate of persons aged 30–34	38.6	0.15	0.4	38.3	38.9
Headship rate of persons aged 60–64	57.3	0.27	0.5	56.7	57.8
Proportion of one-unextended family nucleus	59.2	0.10	0.2	59.0	59.4
Proportion of households with income between HK\$5 000–5 999	10.6	0.07	0.6	10.4	10.7
Proportion of households who were owner-occupiers	35.1	0.10	0.3	34.9	35.3
Proportion of population in Tuen Mun New Town who have moved into the town in the past 5 years	52.4	0.50	0.9	51.4	53.4

Table 1(b) **Sample estimates of totals and averages, estimated standard errors and 95 per cent confidence interval estimates; 1986**

<i>Variables</i>	<i>Sample estimate</i>	<i>Standard error</i>	<i>Ratio: standard error to estimate %</i>	<i>95 per cent Confidence Interval</i>	
				<i>Lower limit</i>	<i>Upper limit</i>
Never married males aged 15 and over	843 697	2 937	0.3	837 941	849 453
Never married males aged 30–34	76 095	720	0.9	74 684	77 506
Persons attending school full-time	1 338 284	3 646	0.3	1 331 138	1 345 430
Persons attending secondary school full-time	431 503	1 780	0.4	428 014	434 992
Population with matriculation education	272 251	1 273	0.5	269 755	274 747
Population with university education	180 145	1 106	0.6	177 978	182 312
Labour force aged 15–19	161 885	1 477	0.9	158 990	164 780
Working population	2 643 273	5 058	0.2	2 633 359	2 653 187
Self-employed (hawking)	46 548	687	1.5	45 201	47 895
Employee (private)	2 025 990	4 656	0.2	2 016 865	2 035 115
Labour force in manufacturing industry #	985 517	2 958	0.3	979 719	991 315
Labour force in textile industry #	403 430	1 940	0.5	399 627	407 233
Professional/Technical and related workers (including the unemployed) #	225 540	1 295	0.6	223 001	228 079
Accountant and auditor (including the unemployed) #	5 873	198	3.4	5 484	6 262
Average hours of work of sales workers*	53.5	0.11	0.2	53.2	53.7
One unextended nuclear family	860 067	1 727	0.2	856 682	863 452
One unextended nuclear family with elderly persons aged 60 and over	168 915	539	0.3	167 859	169 971
Domestic households with elderly persons aged 60 and over	463 548	1 586	0.3	460 439	466 657
Domestic households in public housing with 4 persons	124 516	758	0.6	123 030	126 002
Average household income (excluding zero income household)	7 142	15.66	0.2	7 112	7 173
Average household income in Yau Ma Tei District (excluding zero income household)	7 695	91.60	1.2	7 516	7 875
Domestic households occupying whole flats in private housing blocks	448 616	808	0.2	447 032	450 200
Owner-occupied households	506 926	1 444	0.3	504 095	509 757
Owner-occupied households in private housing blocks	341 215	939	0.3	339 375	343 055
Persons moving into Sha Tin New Town	209 762	931	0.4	207 937	211 587
Persons moving out of Sha Tin New Town	15 673	513	3.3	14 667	16 679

# Excluding unemployed persons not having had a previous job.

\* Including employed persons on leave or holiday.

## Post-enumeration survey

A post-enumeration survey (PES) was conducted to assess what coverage errors were there in the 1986 By-Census enumeration, entailing a re-interview of a sample of the enumerated households. The PES was conducted from 21 to 27 March 1986. It started a few days after the By-Census operation in order to minimize any memory errors on the part of the respondents and any possible changes in the occupancy of the living quarters since they were last enumerated. A sample of 75 clusters of enumerator assignments, selected by a random process, was used for the survey. The sample covered 2 136 quarters, which was about 0.9 per cent of the quarters sampled for the By-Census.

The re-interview study was designed to obtain a more accurate head count than was feasible in the By-Census. The means of achieving 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 By-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 locations of the quarters to be re-visited and the original reference date for the enumeration of the household. After the re-enumeration, the quarters in the sample for the PES were first matched with the quarters in the corresponding sample for the By-Census by the enumeration results. For those quarters which were reported in both surveys as 'enumerated' (i.e. those quarters which were occupied at the time of the surveys), they were then matched on a person-to-person basis.

Of the 2 136 quarters included in the sample, 2 001 (or 94 per cent) could be matched on the basis of the above criteria. The number of persons in these quarters enumerated in the PES was 6 687, and in the By-Census was 6 649, giving an estimate of a net undercount of 0.6 per cent of the population in the By-Census. The remaining 135 quarters could not be matched. The main reason for the 'unmatch' was that many of these quarters either could not be contacted during the By-Census but were enumerated in the PES, and vice versa; or were unoccupied at the time of the By-Census but were occupied at the time of the PES, and vice versa. Change in the occupancy of the quarters, i.e. removal of households after the By-Census was also a reason. It should be pointed out that the PES cannot estimate (because of the small sample size) any possible error in the head count of the By-Census due to the enumerators locating a wrong sampled quarter for enumeration.

### Treatment of non-contact households

Households might be 'not at home' when the enumerators visited the sampled living quarters. In order to keep the number of non-contact cases in the By-Census to a minimum, enumerators were instructed to make several visits to each household at different times and dates to interview all members of the household. At the end of the By-Census operation, a self-administered questionnaire was left with those households which could not be contacted even after repeated visits for the householders to complete and return by post. There were totally 5 389 households that could not be contacted in the By-Census, and 1 743 (or 32 per cent) completed and returned a self-administered questionnaire. On the basis of information derived from the returned questionnaires, an adjustment was made to the head count of the population to allow for persons in those non-contact households which failed to return a self-administered questionnaire.

### Computer checking of enumeration errors

Apart from coverage errors, there are errors arising from the interview process itself. Enumerators may misinterpret the questions or record an answer wrongly. Respondents may be unable or unwilling to provide correct information. Answers recorded in long hand may be wrongly coded.

Enumeration errors are probably the most difficult to control, but various measures were taken during the By-Census operation to minimize these errors. Those errors undetected by the field quality control could, to some extent, be identified by computer checking information on the characteristics of individual persons. This is known as computer editing, which entails testing the data for errors through a set of prescribed rules. Errors found are either listed for manual amendment or amended automatically by the computer. The results of computer editing provide an additional indication of the quality of enumeration.

The editing procedure for the 1986 By-Census consisted of two parts, namely validation and imputation. Validation was restricted to simple checks and was aimed at ensuring that (a) 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 ranges; and (c) information recorded in respect of basic variables, such as age, was consistent with other characteristics, such as educational attainment, activity status and age of other members of the household. When a possible error was identified the data record was rejected by the computer and was amended manually before it was accepted for input. Table 2 shows the percentage of different types of errors identified during the validation stage.

Table 2 Percentage of errors identified during validation stage

<i>Type of error</i>	<i>Percentage</i>
Duplication errors (as a percentage of all households/persons)	
Duplication of household records	0.03
Duplication of personal records	0.03
Errors involving invalid information (as a percentage of all data fields checked)	
Codes out of acceptable ranges	0.05
Inconsistent codes due to errors in one of the variables	1.00

To understand, in greater detail, the nature of the errors identified, one-third of these errors were extracted from the checked records for further analysis. The errors were scrutinized 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 misinterpretation of concepts; and (v) indeterminate cases. Suspect cases identified for scrutiny as a result of more stringent editing rules being used but subsequently found to be correct, which amounted to 11 per cent of all cases identified, were excluded. Table 3 shows the results of this analysis.

**Table 3 Analysis of invalid data identified during validation stage by nature of error**

<i>Nature of error</i>	<i>Percentage*</i>
Key-punching errors	1.0
Erroneous codes	71.4
Omission of codes	1.3
Enumeration errors #	12.5
Indeterminate cases	13.8

\* Based on households with only one type of error identified.

# Excluding enumeration errors identified during the imputation stage.

The second part of the editing procedure, imputation, was completely automatic. The purpose was to identify all inconsistencies between characteristics in a record and to remove them by assigning new codes or values to the variables involved. The imputation for the By-Census comprised a sequence of tests in which various items were successively checked against previously accepted (or amended) items. Any inconsistency found (in accordance with pre-specified consistency rules) would be rectified by amending the lower item in the hierarchy. The first link to this chain was the key variable which was established to be correct at the validation stage. The percentage of records for each item which was imputed, i.e. the imputation rate, provided a measure of the quality of the By-Census results. Table 4 shows the imputation rates for the By-Census variables checked.

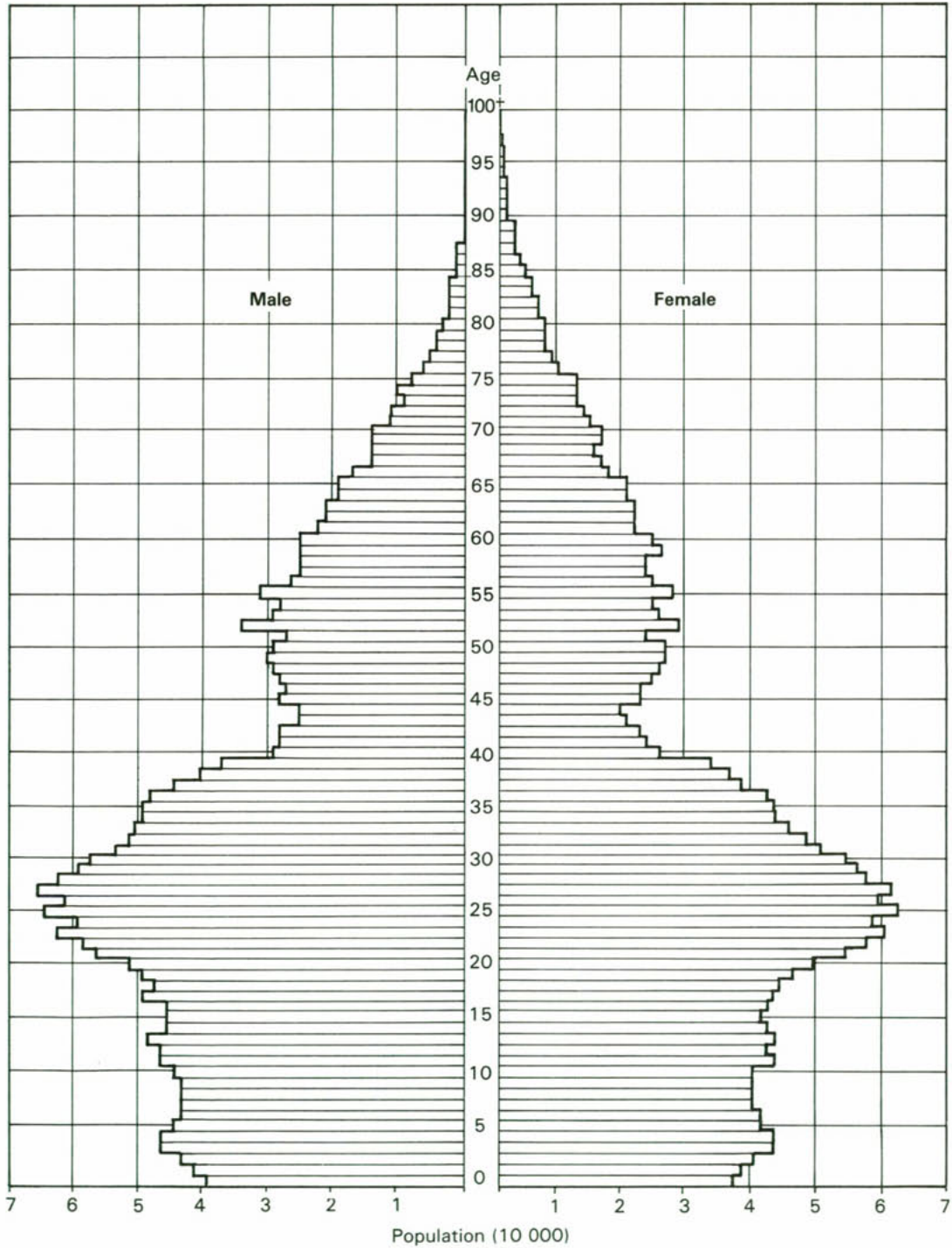
**Table 4 Imputation rates for various variables checked**

<i>Variable</i>	<i>Imputation rate (per cent)</i>
Household Data	
Type of living quarter	0.1
Type of accommodation	3.9
Tenure	1.0
Rent	2.2
Imputation rate for all fields of household records	0.9
Personal Data	
Permanent address 5 years ago	1.0
Whether studying	1.0
Educational attainment	1.2
Field of education	1.2
Industry	5.3
Occupation	2.5
Hours of work	0.9
Whether seeking more work	0.9
Income from main employment	4.4
Other cash income	3.0
Imputation rate for all fields of personal records	1.1

## Accuracy of age data

It is not unusual that age is misreported in a population census. Age misstatements can generally arise as a result of 'digit' preference. They result in noticeable concentrations of population reported at certain ages and marked deficiencies at others. In all past censuses in Hong Kong, the year of birth was asked instead of age. This, to a large extent, reduced errors in the reporting of ages due to the preference for some particular digits. Chart 1 shows the population obtained from the 1986 By-Census by sex and single year of age (which was derived from the reported year of birth). Only small 'spikes' at ages ending in digits 5 and 9 were observed.

Chart 1 Single-year Population Pyramid Constructed on Reported Age; 1986 By-Census



One way of measuring digital preference in the age data is Myer's Index which reflects the preferences or dislikes for each of the 10 digits from 0 to 9. In a 'normal undistorted' situation, the successive sums of numbers recorded at ages ending in each of the 10 digits will tend to decrease. Myer's Index is computed from a 'blended' sum which gives due weighting to each digit. The blended total for each of the 10 digits should be approximately 10 per cent of the overall total if there were no errors in the reporting of ages arising from preferences and dislikes. For each digit, the extent of the deviation from 10 per cent would indicate the extent of preference or dislike for that digit. The sum of the deviations, irrespective of the sign, is Myer's Index which provides a measure of the extent of digital preference in the data as a whole. Table 5 shows the index of preference for each digit at the 1986 By-Census for each sex separately.

Table 5 Myer's Index of digital preference for digits 0 to 9; 1986 By-Census

<i>Terminal digit</i>	<i>Male</i>	<i>Female</i>	<i>Both sexes</i>
0	-0.2	—	-0.1
1	-0.4	-0.3	-0.3
2	+0.1	+0.1	+0.1
3	+0.1	—	—
4	-0.1	-0.2	-0.2
5	+0.4	+0.4	+0.4
6	—	-0.1	—
7	+0.1	—	+0.1
8	—	-0.1	-0.1
9	—	+0.2	+0.1
Myer's Index	1.4	1.4	1.4

The extent of digital preference was fairly small for both males and females. Both sexes had a preference for digit 5; similar preference was found in the 1976 By-Census. In the 1981 Census, a higher preference for 0 was observed. The overall index of preference for the terminal digits at the 1986 By-Census was 1.4 for both males and females; the 1981 index was 2.8 for males and 2.4 for females.

The above results need to be interpreted with care. The validity of Myer's Index is subject to whether a uniform distribution of a population, i.e. 10 per cent of the overall total at each terminal digit could be achieved in actual circumstances (even if there were no errors in the reporting of ages). Apparently, the index cannot discriminate between discrepancies due to errors in the reporting of ages and those due to irregularities in the age distribution as a result of fluctuations in the vital and migration events.

## Total population

The head count of the 1986 By-Census could be checked against an independent estimate of the total population, which was obtained by taking the 1981 Census count, adjusted for subsequent births, deaths and migration. It was found that the difference between the 1986 By-Census estimate of the total population and the independent estimate was 0.4 per cent. Table 6 shows the comparison.

Table 6 Comparison of 1986 By-Census estimate of population and the independent estimate #

<i>Independent estimate</i>	<i>Number in million</i>
1981 Census head count* (population as at 9 March 1981)	5.12
plus Births	0.41
minus Deaths	0.13
plus Net migration	0.09
Estimated population as at 11 March 1986	5.49
<i>By-Census estimate</i>	
<i>De facto</i> population plus residents temporarily away from Hong Kong†	5.47

\* Adjusted for an estimated underenumeration in the 1981 Census.

† Residents going to China/Macau on Re-entry Permits are included because they are not counted in the net migration figure for deriving the independent estimate.

# Excluding Vietnamese refugees.

## Coverage of children aged under 5

Underenumeration of infants and young children is often quite serious in a population census. The estimated number of children under 5 obtained from the 1986 By-Census could be compared with an independent estimate. In Hong Kong, civil registration of births and deaths is virtually complete. Migration data showing the movement of the population are also available. For the purpose of the comparison, an estimate was made of the number of surviving children aged 0–4 at the time of the By-Census, from births occurring during the preceding five years. This estimate, after adjusted for the net migration during the period, was larger than the By-Census estimate of children under 5 by 19 500. Table 7 shows the detailed comparison.

Table 7 Comparison of 1986 By-Census estimate of population aged under 5 and the independent estimate

a. Independent estimate	Age in complete years at 1986 By-Census					Total
	0	1	2	3	4	
	(Number in thousands)					
(1) Birth periods for respective birth cohorts	11.3.85– 10.3.86	11.3.84– 10.3.85	11.3.83– 10.3.84	11.3.82– 10.3.83	11.3.81– 10.3.82	
(2) Number of births	75.7	77.2	81.9	86.0	86.9	407.7
(3) Number of deaths for respective birth cohorts during 5-year period 11.3.81 to 10.3.86	0.5	0.7	0.9	0.9	1.0	4.0
(4) Surviving births=(2)–(3)	75.2	76.5	81.0	85.1	85.9	403.7
(5) Net migration	+0.7	+2.1	+2.9	+3.3	+3.1	+12.1
(6) Estimated number of children aged 0–4=(4) + (5)	75.9	78.6	83.9	88.4	89.0	415.8
b. By-Census estimate						
<i>De facto</i> population aged 0–4 plus residents in this age group temporarily away from Hong Kong*	74.4	73.3	79.2	83.8	85.6	396.3
<i>Difference</i>						
(b)–(a)	–1.5	–5.3	–4.7	–4.6	–3.4	–19.5

\* Residents going to China/Macau on Re-entry Permits are included because they are not counted in the net migration figure for deriving the independent estimate.

# Appendix I

## Definitions of Terms

**Activity Status**—This refers to the status of a person in relation to economic activity in society. The population may be broadly divided into two main groups: (A) economically active population (labour force) and (B) economically inactive population as follows:

(A) *Economically active population*—This comprises the employed (working population) and the unemployed.

*The employed*—This refers to persons aged 15 and above who performed some work for a wage/salary or were on leave/holiday during the seven days before enumeration in the By-Census. Included in this category are:

*Self-employed*—A person who works on his/her own account, neither employed by someone else nor employing others.

*Employer*—A person who works on his/her own account and employs one or more persons to work for him/her.

*Outworker*—An employee who is free to take his/her work home or anywhere he/she likes.

*Employee (Public sector)*—A person who works for a wage/salary in local government or overseas government. Employees of government subsidized organizations, such as Trade Development Council, Productivity Centre, Universities, Polytechnics, ICAC are excluded from this category.

*Employee (Private sector)*—A person who works for a wage/salary in private/government subsidized organizations. Included in this category are domestic helpers working for wages.

*Unpaid family worker*—A person who lives with his/her family and does work (not domestic work) as part of the family enterprise in return for food and lodging.

*Student worker*—A full-time student who performed some work for a wage/salary during the seven days before enumeration in the By-Census.

*The unemployed*—This refers to persons aged 15 and above and not of independent means who were not at work during the seven days before enumeration in the By-Census but were seeking work and available for work. This excludes those who were on leave/holiday during the reference period but includes:

(a) job-seekers who were not available for work because of temporary sickness/injury; and

(b) those who were available for work but not seeking work because they

(i) were waiting to take up a new job;

(ii) expected to be called back to work; and

(iii) believed suitable work was not available.

(B) *Economically inactive population*—This refers to persons who did not have a job and were not at work during the seven days before enumeration in the By-Census, excluding persons who were on leave/holiday during the reference period and persons who were unemployed. Included in this category are home-makers, students, persons of independent means, retired persons, inmates of institutions and other economically inactive.

*Home-maker*—A person who looks after the home without pay.

*Student*—A person who is studying full-time in school or other educational institution (student workers are classified as economically active persons and are not included in this group. Persons who are self-studying, or studying informal courses in miscellaneous training institutes or studying evening courses and were not working during the seven days before the enumeration of the By-Census are also included in this category).

*Of independent means*—Persons who do not have to work for a living. They live by either renting or subletting a house or flat (or part of a house/flat), or on capital accumulated in previous years, or on income from investments or on remittances from overseas.

*Retired person*—A person who has worked previously but is not currently working because of old age.

*Inmate of institution*—A person who is either in a penal, medical, mental or charitable institution.

*Other economically inactive*—Economically inactive persons not elsewhere classified, e.g. persons who cannot work or do not seek work because of sickness or disablement and unpaid religious workers. Includes also person of independent means where this does not appear separately.

**Age**—The number of complete years a person has passed since birth.

**Age-specific Headship Rate**—The proportion which the number of household heads in a specific age group bears to the total population in that group.

**Area of Destination (of Internal Movement)**—The district/new town in which the person was enumerated in the By-Census.

**Area of Origin (of Internal Movement)**—The district/new town in which the person lived five 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:

$$\frac{P2}{P1} = (1 + r)^n$$

where P1 = number of people in the population at the initial date.

P2 = number of people in the population at the later date.

r = average annual growth rate.

n = exact number of years between P1 and P2.

(Average annual growth rates of the economically active population, of total households, etc. are similarly defined.)

**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 household on the census reference night by the total number of domestic households.

**Average Number of Domestic Households per 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 Number of Occupants per Living Quarter**—This is calculated by dividing the total number of persons found to be in the living quarters on the census reference night by the total number of occupied living quarters.

**Average Number of Working Members**—The total number of people in all domestic households working divided by the total number of domestic households.

**Cohort (Age 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 people who occupied the same living accommodation and shared some form of communal catering; for example old people's home, staff quarters in factories and workshops, etc.

**Crude Labour Force Participation Rate**—The proportion which the economically active population bears to the total population aged 15 and over.

**De facto Population Count**—The total number of people present in Hong Kong on the census reference date. This includes the resident population (those enumerated), transients and Vietnamese refugees but excludes residents who were temporarily away from Hong Kong.

**De jure Population Count**—The total number of usual residents of Hong Kong on the census reference date. This includes the resident population enumerated and residents who were temporarily away from Hong Kong but excludes transients and Vietnamese refugees.

**Dependency Ratio**—The number of people aged under 15 or aged 65 and over per 1 000 population aged 15–64.

**District**—The geographical area delineated by the City and New Territories Administration for district administration purposes. There are totally 19 districts; four on Hong Kong Island; six in Kowloon and New Kowloon and nine in the New Territories.

**Domestic Household**—This comprises a group of persons, related family members with/without unrelated persons or unrelated persons only, who live together in the same living quarter and share the food of the household. The expenditure of the household is borne by one or more household members. This also includes any person who lives alone and is responsible for his/her own meals.

**Economically Active Population**—See 'Activity Status'.

**Economically Inactive Population**—see 'Activity Status'.

**Educational Attainment**—This refers to the highest level of education ever attained by a person in school or other educational institution, regardless of whether he/she had passed the course. Only formal courses, as defined below, are counted as educational attainment:

- (i) it lasts at least one academic year's duration;
- (ii) it requires specific academic entrance qualifications; and
- (iii) it includes an examination for assessment purposes.

*Primary*—Including Primary 1–6 in all schools.

*Lower secondary*—Including Middle 1–3 in Chinese schools or Form 1–3 in English or Anglo-Chinese schools.

*Upper secondary*—Including Middle 4–5 in Chinese schools or Form 4–5 in English or Anglo-Chinese schools, and Craft/Apprenticeship Courses in Technical Institutes.

*Matriculation*—Including Middle 6 in Chinese schools or Form 6–7 in English or Anglo-Chinese schools, and Certificate/Diploma Courses in Technical Institutes/Polytechnics.

*Tertiary (Non-degree courses)*—Including all Higher Diploma/Endorsement Certificate Courses in Technical Institutes/Polytechnics, Associateship and other non-degree courses in Polytechnics and Post-secondary Colleges. Certificate/Diploma Courses in Colleges of Education and the Technical Teacher's Colleges, and nurse training courses are also grouped in this category.

*Tertiary (Degree courses)*—Including all first degree courses and post-graduate courses of universities in Hong Kong and overseas.

**Employee**—A person who works for a wage/salary in local or overseas government, or in private/government subsidized organizations. (See 'Activity Status')

**Ever-married Population**—Persons who were either married, widowed or divorced/separated.

**Extended Nuclear Family Households**—This refers to households which comprised one family nucleus with one or more related persons of the same/different generations. (See 'Household Composition')

**Fertility**—The level of reproductive performance of a population measured by the number of live births that occur to women of reproductive age (those aged between 15 and 49) during a calendar year. It must be distinguished from fecundity, the potential level of performance (or physical capacity for bearing children) of the population.

**Field of Education**—This refers to the subject of the courses to which the person's highest level of education was 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.

*Arts and social science*—Including 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*—Including studies in mathematics; biology; chemistry; geology; physics; astronomy; meteorology; oceanography; statistics; actuarial science.

*Education*—Including studies in Colleges of Education; Technical Teacher's Colleges; Certificate/Diploma of Education Courses and university degree courses in education.

*Accountancy and studies in secretarial skills*—Including studies in accountancy; secretaryship (except company secretaryship); shorthand, typing and book-keeping.

*Business administration*—Including studies in banking; marketing; finance and investment; valuation, purchase and supply; insurance; company secretaryship; public and business administration.

*Computer studies*—Including studies in computer programming and system analysis; electronic data processing; business machine and computer operation.

*Medical and related studies*—Including 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*—Including 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 and marine engineering*—Including 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*—Including studies in electrical and electronic engineering; refrigeration and air-conditioning; TV/radio mechanics and servicing; telecommunication; marine electronics.

*Textile and clothing technology*—Including studies in textile technology/clothing technology such as dyeing, fabric printing, garment and leather manufacturing.

*Design and miscellaneous industrial technology*—Including studies in printing technology; industrial design; basic, graphic and 3-dimensional design; chemical engineering; environmental engineering; watch and clock making; optics.

*Other vocational studies*—Including studies in transport; agricultural programmes; clinical psychology; librarianship; social work; law; journalism and mass communication; public relations studies; tourism; hotel management; laboratory technicianship and other service trades.

**Head of Household**—The person acknowledged by members of the household to be responsible for making major decisions affecting the household.

**Headship Rate**—The proportion which the number of household heads bears to the total population.

**Hours of Work per Week of Employees**—The total number of hours an employee (including those on leave/holiday) actually worked (for all employment), excluding meal breaks and any hours worked without compensation, during the seven days before enumeration.

**Household Composition**—Household composition is derived from the 'relationship to the head of household' of each usual 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*—A household comprising one family nucleus without other related persons.

*One vertically extended nuclear family*—A household comprising one family nucleus with one or more related persons not of the same generation. It may or may not include other related persons of the same generation.

*One horizontally extended nuclear family*—A household comprising one family nucleus with one or more related persons of the same generation but without any other related persons of a different generation.

*Two or more nuclear families*—A household comprising two or more family nuclei whose members may or may not be related in any way.

**Household Size**—This refers to the number of persons found to be in the household on the census reference night.

**Industry**—This refers to the main kind of goods or services produced by the establishment in which a person worked during the seven days before enumeration in the By-Census. The classification used follows the major divisions of the International Standard Industrial Classification. Unemployed persons having had a previous job are classified by their last industry.

*Agriculture and fishing*—Including growing of rice, vegetables, flowers, fruits; keeping of pigs and poultry; beam trawling, single-boat stern trawling, pair trawling, long lining, hand lining, purse seining, gill netting; oyster and pond fish culture.

*Mining and quarrying*—Including metal ore mining and processing; stone quarrying.

*Manufacturing*—Including spinning of cotton and other yarn, weaving and knitting of cotton and other fabrics; bleaching, dyeing, finishing; manufacturing of wearing apparel, knitwear and other made-up textile goods; manufacturing of carpets, cordages, ropes and twines; manufacturing of food, beverage, tobacco, footwear, leather products, rubber products, plastic products, wood products, printed matters and paper products, metal products, machinery, chemicals, chemical products, glass, pottery.

*Electricity, gas and water*—Including electric light and power, town gas, water supply.

*Construction*—Including building construction, civil engineering, plumbing, electrical wiring, air-conditioning installation and repair.

*Wholesale and retail trade, restaurants and hotels*—Including wholesale and retail trade, import and export trade, hawkers, peddlers, Chinese general brokers, other commercial agents; restaurants, cafes, hotels, rooming houses.

*Transport, storage and communication*—Including land transport, water transport, air transport, services allied to transport, storage and warehousing, posts, telecommunications.

*Financing, insurance, real estate and business services*—Including finance, insurance, real estate; offices of lawyers, accountants, auditors, architects, surveyors, advertising agents; data processing services; chambers of commerce and trade unions.

*Services*—Including government services; the armed forces; education services; medical, dental and other health services; sanitary services; welfare institutions, religious organizations; cinemas, theatres, radio and television broadcasting, libraries, museums; electrical repair shops, automobile repair garages; other household and personal services.

*Unclassifiable*—Including persons in industries inadequately described or unclassifiable.

**Internal Movement**—This refers to the change of residence during the past five years from a district to another district or to a new town or to other areas in the New Territories, or vice versa.

**Labour Force**—See 'Activity Status'.

**Labour Force Participation Rate**—See 'Crude Labour Force Participation Rate'.

**Living Quarter**—This includes:

- (a) quarters built for residential purposes irrespective of whether there is anybody living there; and
- (b) quarters built for non-residential purposes which normally has one or more persons living there or was occupied on the census reference night.

Structurally, a living quarter must be internally connected so that the occupants could move between the rooms/cubicles without going outside onto a public corridor, landing or staircase. It must also have a direct external access to a street, public corridor, landing or staircase without going through another quarter. In this report, all figures on living quarters refer to quarters where occupants were present on the census reference night.

*Occupied living quarters*—Living quarters with occupants present on the census reference night. (All tables on living quarters in this report except Table 50 refer to occupied living quarters)

*Stock of living quarters*—Living quarters with occupants present and living quarters whose occupants were absent on the census reference night and vacant quarters built for residential purposes.

**Marital Status**—The status of a person in relation to marriage. The marital status of a person was recorded according to the actual situation as reported by the respondent in the By-Census. There was no check on whether the marriage/divorce had undergone any kind of legal registration or whether any kind of ceremony had ever taken place.

**Median Age**—The average age so calculated that 50% of the total number of persons were above this age and the other 50% were below it.

**Median Hours of Work per Week of Employees**—The average hours of work per week that 50% of the total number of employees (including those on leave/holiday) had worked above this figure and the other 50% had worked below it.

**Median Monthly Household Income**—The average monthly household income so calculated that 50% of the total number of domestic households had incomes above this figure and the other 50% had incomes below it.

**Median Monthly Household Rent**—The average amount of rent so calculated that 50% of the total number of domestic households paid more than this amount and the other 50% paid less.

**Median Monthly Income from Main Employment**—The average monthly income from main employment so calculated that 50% of the total working population (excluding unpaid family workers) had incomes above this figure while the other 50% had incomes below it.

**Mode**—The most frequent value in an array of data. In grouped data the mode is the group which has the highest count.

**Monthly Household Income**—This refers to the total income (including earnings in cash from employment and other cash incomes for February 1986) of all those people who were found to be in the household on the census reference night.

**Monthly Household Rent**—The amount paid for the month of March 1986 by a household for occupying the accommodation, after deducting any housing allowance/subsidies received.

**Monthly Income from Main Employment**—For employers or self-employed persons, this is the amount earned excluding expenses incurred in running their main business; for employees, this is the amount earned from their main employment including salary or wage, bonus, commission, overtime, tips and other cash allowances. Housing allowance and New Year bonus/double pay are excluded. The amount recorded refers to February 1986.

**Mortality**—The ratio of the total number of deaths occurring during a calendar year to the total mid-year population.

**Moved Home**—This refers to the change of residence during the past five years from a district to another district or to a new town or to other areas in the New Territories, or vice versa.

**Natural Increase**—The balance of births and deaths that occur during a calendar year.

**Net Migration**—The balance of immigration and emigration over a calendar year period.

**New Town**—The delineation of the land area in the New Territories into new towns based on the planning areas developed by the Territory Development Department for new town development purposes. There are seven new towns namely, Tsuen Wan New Town, Kwai Chung/Tsing Yi New Town, Tuen Mun New Town, Yuen Long New Town, Sheung Shui/Fanling New Town, Tai Po New Town and Sha Tin New Town.

**Not Working**—Being unemployed or economically inactive during the seven days before enumeration. (See 'Activity Status')

**Occupancy Rate of Living Quarter**—The ratio of the total number of occupied living quarters to the total number of living quarters (stock of living quarters).

**Occupation**—This refers to the kind of work a person performed during the seven days before enumeration in the By-Census. The classification used follows the major groups of the International Standard Classification of Occupation. Unemployed persons having had a previous job are classified by their last occupation.

*Professional, technical and related workers*—Including qualified professional scientists; doctors, dentists; architects, engineers, surveyors; marine and aviation officers and engineers; university academic staff; qualified teachers; economists, statisticians, mathematicians; system analysts, computer programmers; lawyers; accountants; members of religious orders; writers; artists; sportsmen; librarians; social workers; qualified nurses and mid-wives and other para-medical workers; other technicians.

*Administrative and managerial workers*—Including administrative officers in government service; consular staff; directors, managers and working proprietors in industry, commerce, transport and services sectors, but excluding those in wholesale and retail trade, import and export trade and in catering and lodging services; and farm managers.

*Clerical and related workers*—Including 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; flight radio operators.

*Sales workers*—Including managers and working proprietors in wholesale and retail trade, import and export trade; sales supervisors, salesmen, shop assistants; hawkers.

*Service workers*—Including managers and working proprietors in catering and lodging services; hotel and domestic staff; building caretakers; laundry workers; barbers and hairdressers; staff of the police and other disciplined services; tourist guides; other service workers.

*Agricultural workers and fishermen*—Including master farmers, farm hands, gardeners in parks; master fishermen, fish farmers; oyster culturists.

*Production and related workers, transport equipment operators and labourers*—Including 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, other clothing workers; shoemakers, other leather workers; blacksmiths, tool-makers, fitters, machinists; radio and electrical workers; printing and painting workers; musical instrument makers; other production workers; brick-layers, carpenters, other construction workers; stationary engine operators; hand packers, dockers, loaders; riggers; crane operators; seamen; drivers; light-house operators.

*Armed forces and unclassifiable*—Including members of the armed services of Britain and other countries; persons in occupation inadequately described or unclassifiable.

**Place of Birth**—The place where the person was born.

**Persons Having Technical or Tertiary Education**—Persons whose highest level of education was attained in a Technical Institute, a Polytechnic, a College of Education, the Technical Teacher's College, a post-secondary college, or at a university, or in nurse training courses. (See 'Educational Attainment')

**Population Aged 5 and Over Having Moved Home**—Persons aged 5 and over who were living in a district/new town 5 years ago that was different from the one in which they were enumerated.

**Population Density**—The ratio of the number of people to the total land area (in square kilometres) of the geographical division in which they were enumerated.

**Population Having Secondary and Above Education**—Persons whose highest level of education was attained in secondary and matriculation classes, or in a Technical Institute, a Polytechnic, a College of Education, the Technical Teacher's College, a post-secondary college, or at a university, or in nurse training courses. (See 'Educational Attainment')

**Private Housing**—Including private housing blocks; Housing Society Urban Improvement Scheme estates; villas/bungalows/modern village houses; simple stone structures; staff quarter buildings and quarters in hotels, hostels, commercial, manufacturing and other non-residential buildings. Housing Authority home ownership estates are also included when they do not appear separately.

**Private Temporary Housing**—These are structures built of temporary materials including roof-top structures, contractor's matsheds, nissen huts, private temporary huts and places not intended for residential purposes (e.g. landings, staircases, corridors etc.) but were occupied on the census reference night.

**Public and Aided Housing**—Including Housing Authority rental blocks (Group A), Housing Authority rental blocks (Group B) and Housing Society rental blocks.

**School Attendance Ratio**—The ratio of the number of full-time students in schools or other educational institutions to the total population.

**Sex-age-specific Labour Force Participation Rate**—The proportion which the economically active population in a specific sex and age group bears to the total population in that group.

**Sex Ratio**—The number of males per 1 000 females.

**Standardized Percentage/Rate**—The percentage or rate derived by the standardization technique which has the effect of eliminating the sex and age differences from the data for comparison purposes. The technique involves calculating a weighted average of the sex-age-specific percentages/rates with respective weights taken from the distribution of the standard population by sex and age.

**Studying Full-time in Post-secondary Colleges/Universities**—All those studying full-time (i.e. excluding evening/part-time day release courses) in Technical Institutes, Polytechnics, Colleges of Education, the Technical Teacher's College, post-secondary colleges or universities (See 'Educational Attainment'). Students include student workers except where a person's economic activity is considered.

**Studying Part-time in Post-secondary Colleges/Universities**—Including part-time day release courses (including nurse training courses) and evening courses offered by Technical Institutes, Polytechnics and Colleges of Education. All correspondence courses except those leading to a first or higher degree are not included. (See 'Educational Attainment')

**Technical Education**—Including Craft Courses in Technical Institutes and Certificate/Diploma Courses in Technical Institutes/Polytechnics (See 'Educational Attainment').

**Temporary Housing**—Including Housing Authority cottages and temporary huts, roof-top structures and other private temporary housing.

**Tenure**—The terms or conditions under which the accommodation is held by the household.

*Owner-occupier*—A household which owns the living quarter it occupies.

*Sole tenant*—A household which rents the whole living quarter it occupies from someone who lives outside the living quarter without sharing with other household(s) or subletting.

*Main tenant*—A household which rents the whole living quarter it occupies from someone who lives outside the living quarter and sublets to other household(s).

*Sub-tenant*—A household which rents part of a living quarter from someone who lives in the same living quarter.

*Co-tenant*—Two or more households each rents part of a living quarter from someone who lives outside the living quarter.

*Rent free*—A household which occupies the accommodation free, with or without the owner's permission. This excludes households occupying accommodation provided by employers.

*Provided/Subsidised by employer*—A household occupies an accommodation provided or subsidised by employer. A household is included in this category if any of its members receives a housing allowance of any kind and of any amount (including Home Purchase Allowance) from his/her employer. This also includes households occupying living quarters leased from employers at a nominal rent.

**Type of Living Quarter**—A living quarter is classified by the type of building in which the living quarter is located.

A building is classified in accordance with the following scheme:

- (a) by the purpose for which the building is built;
- (b) by the type of materials used; and
- (c) by the sector responsible for its construction/management.

*Self-contained quarters*—Living quarters with internal piped water supply and a flush toilet system.

*Housing Authority rental blocks (Group A)*—These are Government Low Cost Housing Blocks and other buildings under the management of the Hong Kong Housing Authority. Units in these blocks are self-contained. Converted Mark I to Mark III blocks are also grouped in this category.

*Housing Authority rental blocks (Group B)*—These are buildings formerly managed by the Resettlement Department but have been put under the management of the Hong Kong Housing Authority since 1973. They can be divided into Mark I to Mark VI estates. Units in Mark I to Mark III are non self-contained.

*Housing Authority home ownership estates*—These are self-contained living quarters built and managed by the Hong Kong Housing Authority under the Home Ownership Scheme, the Private Sector Participation Scheme and the Middle-income Housing Scheme.

*Private housing blocks (Self-contained)*—These include self-contained living quarters in apartments and other multi-storey blocks owned by the private sector for residential purposes. Living quarters in Housing Society Urban Improvement Scheme estates are also included in this category.

*Villas/bungalows*—These include self-contained living quarters in modern houses of one to three storeys. The design of the houses is more deluxe.

*Modern village houses*—These include self-contained living quarters in relatively modern design village houses of two to three storeys. The roofs of these houses are often laid horizontally.

*Simple stone structures*—These include non self-contained living quarters in one to two storeys houses built of stone and/or other permanent or semi-permanent materials. Units in traditional village houses are also grouped in this category.

*Institutions*—These include units in hospitals, old people's homes, religious houses, maternity homes, prison cells and Army Barracks etc.

*Other permanent housing*—These include units in hotels, boarding houses and other similar residential institutions. Living quarters in commercial, manufacturing and other non-domestic buildings are also grouped in this category.

*Roof-top structures*—These are structures built of temporary or semi-permanent materials on the roofs of permanent buildings.

*Other private temporary housing*—These are structures built of temporary materials (other than roof-top structures) including contractor's matsheds, nissen huts, private temporary huts and places not intended for residential purposes (e.g. landings, staircases, corridors etc.) but were occupied on the census reference night.

**Type of Living Quarter and Accommodation**—A living quarter is classified by the type of building in which the living quarter is located and the type of living space occupied by the household on the census reference night. (See 'Type of Living Quarter')

*Whole house/flat*—This refers to a whole flat/floor/house occupied by one household.

*Room/cubicle*—This refers to the part of a living quarter enclosed by fixed partitions occupied by one household.

*Bedspace/cockloft, etc.*—These include bedspace, cockloft (i.e. a raised platform or a kind of a gallery inside a shop or a house usually intended for storage but actually used for living purposes), accommodation outside a living quarter (e.g. staircases, street-sides) and premises not intended for living (e.g. shops, workshops, storerooms and schools) but were occupied on the census reference night.

**Unemployed Population**—See 'Activity Status'.

**Unextended Nuclear Family Households**—This refers to households which comprised one family nucleus without other related persons. (See 'Household Composition')

**Working**—Being engaged in productive work for a wage/salary or on leave/holiday during the seven days before enumeration. (See 'Activity Status')

**Working Population**—This refers to persons aged 15 and over who performed some work for a wage/salary or who were on leave/holiday during the seven days before enumeration. (See 'Activity Status')





## Appendix III

# List of 1986 By-Census Publications

1. Hong Kong 1986 By-Census—Tertiary Planning Unit: Population by Age
2. Hong Kong 1986 By-Census—Tertiary Planning Unit: Living Quarters, Households and Population by Type of Living Quarter
3. Hong Kong 1986 By-Census—District Board Constituency Area: Population by Age
4. Hong Kong 1986 By-Census—District Board Constituency Area: Living Quarters, Households and Population by Type of Living Quarter
5. Hong Kong 1986 By-Census—Summary Results
6. Hong Kong 1986 By-Census—District Board Constituency Area Summary Tables
7. Hong Kong 1986 By-Census—District Board District Summary Tables
8. Hong Kong 1986 By-Census—Tertiary Planning Unit Summary Tables (3 Volumes)
9. Hong Kong 1986 By-Census—District Board District Tabulations (19 Volumes)
10. Hong Kong 1986 By-Census—Social Atlas
11. Hong Kong 1986 By-Census—Graphic Guide
12. Hong Kong 1986 By-Census—Main Report (2 Volumes)

