1974

World Population Year

THE POPULATION OF MALAYSIA

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

1974 WORLD POPULATION YEAR

THE POPULATION OF MALAYSIA

Prepared by

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C. I. C. R. E. D. SERIES

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PREFACE

The United Nations Organisation declared 1974 as World Population Year. Within this framework they initiated the preparation of a series of monographs on the past, present and future population trends in countries. The Committee for International Co-ordination on National Research in Demography (CICRED) was given the responsibility of co-ordinating the preparation of the monographs. This is the report prepared for Malaysia.

The presentation of past, present and future trends in Malaysia in this volume, form a useful synthesis of much of the knowledge accumulated by official censuses. Its value is enhanced by the effort made to demonstrate the relevance of population data for social planning.

The citizen who wishes to be informed about his country should read this report with care. He will find it a record of progress as well as an account of unfinished work demanding attention. The government administrator will find in this publication information pertinent to the work of his department or division, some of it describing achievements of programmes he has directed. Perhaps it will encourage him to enquire further into the statistical resources available to him. In short, this is both a social document of importance and a window to a mine of information of value in administering the nation's affairs.

I would like to thank Miss D. Z. Fernandez, Dr. A. H. Hawley and Miss Silvia Predaza for their efforts in the preparation of this report. My thanks to all persons in the Census and Demography Division of this Department whose work has contributed to the development of the report.

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EXPLANATORY NOTES

1. Community

The term "Community" refers to a group of people who are bound together by common ties of language, religion, custom or allegiance. This term has been used in preference to the term "race", which though in common use, is an out-moded concept with many inappropriate and ambiguous connotations. In Peninsula Malaysia, there are four major community groups – Malay, Chinese, Indian and Other – which have been further sub-divided into 32 specific community groups:

Malay:	Malay, Indonesian, Negrito, Jakun, Semai, Semelai, Temiar, Other Orang Asli and Other Malays.
Chinese:	Hokkien, Cantonese, Khek(Hakka), Teochew, Hainanese, Kwongsai, Hokchiu, Henghua, Hokchia and Other Chinese.
Indian:	Indian Tamil, Telegu, Malayali, Punjabi, Other Indian, Pakistani, Ceylon Tamil and Other Ceylonese. (It should be noted that in the 1957 Population Census, the categories "Pakistani", "Ceylon Tamil" and "Other Ceylonese" were not included as Indians but were classified as Others).
Other	Thai, Other Asian, European, Eurasian and Others. (In the 1957 Population Census, this category included "Pakistani", "Ceylon Tamil" and "Other Ceylonese").

2. Labour Force Status

This classification is limited to persons aged 10 years and above. The status is based on a time reference of seven days prior to the census enumeration.

The major categories were "In the Labour Force" and "Out of the Labour Force" plus a residual category of "Not Reported". The major categories were subdivided as follows:

In the Labour Force:

Employed	-	Persons who had a regular job or business or were working as an unpaid family worker for more than three hours a day during the seven day reference period. This category also includes other part-time workers who were in receipt of an income.
Unemployed	-	includes persons who were without employment during the seven day reference period, and were actively seeking employment.
Experienced labour force	-	refers to those persons in the labour force who have had previous employment experience. They could have been either employed during the reference period or unemployed, but had been previously employed. It excludes first-time job seekers.

Out of the Labour Force:

Looking after house	-	includes housewives and other persons whose main activity was the care of the home.
Student	-	includes all those who attend schools, universities, colleges, etc.

Others - includes children of pre-school age, retired persons, handicapped persons who were not economically active.

Not reported

This group of persons could not be classified as being in the labour force or out of the labour force, due to lack of information on their activities.

CHAPTER I

THE GROWTH OF THE MALAYSIAN POPULATION

History of Census Enumeration

The first permanent settlers in the peninsula were the Malays who came down from the Asiatic north between 2,500 and 1,500 BC and pushed the nomadic aborigines away from the coastal areas. Subsequently, Malay kingdoms rose and fell until the establishment of British domination. The modern era began with the British settlement of Penang in 1786 and by the time of the First World War the entire peninsula had fallen under British control. The export economy fostered by the British led to a labour force recruitment which determined much that is important in the demographic structure of Malaysia down to the present.

The chronology of political changes as related to the development of the sources of demographic information follows:

In 1891, the date of the first comprehensive census, the part of present day Malaysia covered in the census consisted of the Straits Settlements of Penang, Malacca and Singapore, and the Protected Malay States of Perak, Pahang, Negri Sembilan and Selangor.

By 1901, the date of the second census, The Protected Malay States had become the Federated Malay States. At the time of the next census, in 1911, a third colonial political unit was distinguishable, the Unfederated Malay States, including Johore, Kedah, Trengganu and Kelantan.

The 1921 and 1931 censuses of British Malaya comprised the Straits Settlements, the Federated Malay States, the Unfederated Malay States and Brunei.

The 1947 census was again conducted by the British government after the years of Japanese rule (1941–45). The Malayan Union and the Colony of Singapore had come into being in 1946. The Malayan Union gave way to the Federation of Malaya in 1948.

The 1957 census was the last to be conducted by the British colonial government. The Federation of Malaya achieved independence on 31st August, 1957.

In 1963 Malaysia was established, consisting of Peninsula Malaya, Singapore, Sarawak and Sabah (formerly North Borneo). In 1965 Singapore separated from Malaysia.

The 1970 census covered the 13 states of Malaysia – 11 in Peninsula Malaysia and Sabah and Sarawak.

While considerable statistical documentation thus exists in the form of frequently conducted censuses, the rapid political-geographical changes of Malaysia's past do not permit easy comparability of its population data. Moreover, the older political units, the Straits Settlements and the Federated Malay States, have much earlier and more accurate data than the more recent arrivals, such as the Unfederated Malay States and Sarawak.

Palmore, Chander and Fernandez, using estimates of the population in Penang and Malacca for the years from 1817 to 1891, and enumerations in the six Federated Malay States after 1891, arrive at the conclusion that the Peninsula Malaysian population has been growing at rates higher than 2 per cent per year for 150 years or more.[1] Complete census coverage for the area included in modern Peninsula Malaysia dates from 1911. Since then, the per annum growth rate has varied around 2 per cent, falling below that figure during the years of Japanese occupation and rising above it in the years of colonial economic development and again after World War II. The growth history is described in Table 1.1. It is to be noted that for no year prior to 1970 is it possible to state a figure for the total population of the area comprising present day Malaysia. The 1970 census covered the entire area for the first time. That census was also the first to be followed by a Post-Enumeration Survey, though the survey was limited to Peninsula Malaysia. If the 4 per cent under-enumeration estimated from the survey applies to the whole of Malaysia, then the total population in 1970 may not be 10,436,276, but at least 11,102,421.

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1. J. Palmore, R. Chander, D. Z. Fernandez, The Demographic Situation in Malaysia. A paper presented at the Annual Meeting of the Population Association of America April 1973, New Orleam, (Unpublished).

Malaysia's modern growth history involves two phases. The first, which terminated with World War II, was characterized by large-scale foreign immigration. The second, from 1947 to the present, is one in which growth has been due almost entirely to natural increase. Unfortunately, it is not possible to disaggregate the growth increments in order to obtain measures of the two components. Nevertheless, we know from historical and indirect evidence that foreign migration has been a significant factor in Malaysian population change.

Foreign Migration: The Historical Record

The international migration that produced today's highly heterogeneous population were a direct result of British colonial economic policy. Although Chinese immigration was stimulated periodically by drought and famine in China, it was also attracted by opportunities for employment in the tin mines and the commerce of Malaysia. Their movements have ebbed and flowed since early in the 19th Century. The Chinese gradually accumulated to a number equal to one-third of the population. Indian immigration was a response largely to labour recruitment for the expanding rubber industry. During the period from 1901 to 1911 the extension of rubber planting was extremely rapid and the demand for labour grew apace. By 1921 Indians constituted 70 per cent of the estate population and 15 per cent of the total population.

There was also an immigration of Malays from the neighboring islands, particularly from Java and Sumatra, to work on the rubber estates. It is not possible to trace their numbers through the early years. Attempts were made to identify "Malays and Other Natives of the Archipelego" in the enumerations of 1891 and 1911, but the ease of assimilation of Malay migrants from Indonesia made the counts very unreliable. "Other Malaysians" in the censuses of 1931 and 1947 amounted to approximately 15 and 12 per cent, respectively, of all Malays.

During the early depression years, owing to sharp declines in the prices of rubber and tin, departures exceeded arrivals in all community groups. Some recovery in the world demand for Malaysia's raw materials brought a resumption of new immigration after 1934. That continued until the beginning of World War II, at which time the flow seems to have turned outward once again. Since 1947 net migration from abroad appears to have been negligible.

The Japanese Occupation proved to be a population disturbing factor of major proportions. Economic disruption, food shortages and malnutrition, refugee movements from rural areas to town and forced returns to rural areas, labour drafts for work on railways and the general interruption of normal family life caused birth rates to fall as death rates rose. It is possible that during the last years of the occupation, 1944 and 1945, there was an actual decline of population. Following the war, growth was renewed, but not until 1957 did the Indians recover their losses of the occupation period.

The three main community groups have differed in their geographical distribution because of their different roles in the economy. The Malays, who have been and are still engaged mostly in small-scale agricultural activities, are found mainly in rural areas, especially in the former Unfederated Malay States of the north and northeast. The Chinese are mainly in the commerce, industry and domestic services. They are found mainly in urban areas and in the west coast states once known as the Federated Malay States. Indians are located mainly where rubber and oil palm estates are found, that is, in the states of the west coast. This differential distribution, while it is now undergoing change, has tended to preserve a cultural separation of the community groups.

The Measurement of Foreign Migration

Despite the important effect external migration has exerted on population growth in Peninsula Malaysia there are no reliable figures on immigration and emigration. There is no quantitative data available for the period prior to 1930. From 1931 to 1941 an effort was made to maintain a statistical record for the Peninsula as a whole but with indifferent success. No figures are available for the years of the Japanese Occupation, 1941 to 1945.

Since 1947, records have been kept on arrivals and departures at all Peninsula Malaysia airports and ports and those of Singapore. The numbers are then allocated to Malaysia and Singapore on the basis of their respective proportions of the total population. At best, that enumeration provides a very rough count of the amount of movement into and out of Peninsula Malaysia. Table 1.2 presents the statistics obtained from that source.

Much of the foreign migration occurs in exchanges with Singapore. But that traffic, particularly the flows to and fro over the causeway linking Singapore to Malaysia, is believed to be very poorly counted. A better source of information is supplied by the censuses in answer to place of birth questions. In 1957 40,000 persons who were born in Singapore were living in Peninsula Malaysia, and 124,900 persons who had been born in Peninsula Malaysia were living in Singapore, representing a net gain to Singapore of 84,900 persons. Comparable figures reported in the 1970 censuses were 48,600 and 187,200, again representing a net gain to Singapore of 138,600 individuals. It is quite possible, of course, that changes in the balance of opportunities could shift the migration in an opposite direction.

Since 1957 the net loss to Singapore has shifted from a majority of Malays to a very large majority of Chinese, as Table 1.3 shows.

For the last intercensal period, 1957 to 1970, we can estimate the amount and direction of foreign migration by comparing the amount of natural increase obtained from registered births and deaths to the amount of intercensal change in population size. Thus, we have the following for Peninsula Malaysia:

1970 enumerated population	8,809,557
1957 enumerated population	6,278,758
Intercensal increase	2,530,799
Natural increase, 1957–1970	3,047,341
Estimated net migration*	516,542

It appears that since 1957 foreign migration has been a negative factor in Peninsula Malaysia's population growth.

Migration figures for Sabah and Sarawak are limited to the 1960 to 1970 period. They are obtained from place of birth data from the censuses. However, the very long and relatively unmanned borders of the two states and the very large proportions of mobile indigenous populations give reason to believe that official figures fall far short of accurately representing the amount of foreign movement.

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* This estimate ignores the 4.05% under-enumeration in the census measured by the Post-Enumeration Survey.

Foreign Migration: Indirect Evidence

Apart from problems of direct measurement, the community composition of the population shows the cumulative effect of foreign migration together with the natural increase of migrants. In Table 1.4 it is seen that by 1921 the non-indigenous population -- Chinese, Indian and Other had already grown to 46 per cent of the total. The continuation of large-scale foreign immigration reduced the Malay proportion still further through 1931. Thereafter, the Malay proportion increased at first slowly and then rapidly after 1957 as migration restrictions and other controls became effective. The Chinese proportion passed its peak in 1947 and has subsided gradually in subsequent years. The Indians, as noted previously, experienced a sharp decline during the Japanese Occupation and have been unable to regain their former share of the total, though their absolute numbers have increased.

The effects of migration and war are recorded in the age structure of Peninsula Malaysia's population. It is well-known that migration selects young adults in disproportionate numbers. That is apparent in the data for 1931, shown in Table 1.5. The proportions in the ages 20 to 34 are much larger than expected. By 1947 those people had aged 16 years and, though these numbers were depleted by out-migration, the proportions 35 to 49 were still relatively large. The 1947 population shows also the effect of war on depressing the birth rate through separating the sexes and otherwise disturbing family life. The 0–4 cohort of that year is too small to replace the 5–9 cohort. In 1957 the return to normality at least so far as family life is concerned, is reflected in the large 0–4 cohort. Furthermore, the effects of migration have all but disappeared from the age structure. Finally, in 1970 the population has approached the symmetrical age distribution expected from the operation of births and deaths alone. There is evidence, however, of some 13 years of decline of the birth rate in the relatively small 0–4 years cohort. Of this more will be said in Chapter II.

That out-migration helped to remove irregularities in the age distribution is evident in a comparison of 1931 cohorts with their survivors 40 years later, that is, in 1971. The excesses in the young adult ages of 1931 are not observable in the old ages of 1971 shown below:

1931		1971	
Age	Per Cent of Total Population	Age	Per Cent of Total Population
20 – 24	9.7	60 – 64	2.2
25 – 29	11.2	65 – 69	1.3
30 – 34	10.7	70 – 74	1.0
35 – 39	7.8	75 – 79	0.4

Another important consequence of the elimination of excesses due to migration and the dependence of the population on natural processes alone has been the declining median age. After 1947, the median age fell from 20.7 years to 17.6 years. As a result, the ratio of persons in dependent ages to those in economically active ages, the dependency ratio, rose from 74 to over 89. These shifts are to be understood in the light of a sharp decline in the death rate coupled with a slower decline in fertility.

It can be seen in Table 1.6 that Peninsula Malaysia's age distribution does not differ appreciably from those of other countries in the region. And, like its neighbours, Malaysia possesses a much younger population than that characterizing the more developed countries.

Data on age composition by community are available only for 1957 and 1970. In Table 1.7 it is apparent that the Chinese and Indians in 1970 were an older population than the Malays despite their migration losses after World War II. But in 1957 the comparison of age distributions is not so readily made. The Chinese have larger proportions than the Malays in every age group over 40 years, yet their median age is slightly lower. Below the 40 year level there are compensatory distributions in the two communities. Among Indians, the distributions in ages below 20 years are so exceptional as to suggest considerable reporting errors.

The effects of foreign migration are much more visible in sex ratios than in age composition. In the long distance migrations the movement of Chinese and Indians to Malaysia was initiated primarily by males, with females following in increasing numbers in later years after the males established themselves. In 1901 there were some 258 males per 100 females in the Chinese population of Malaysia and nearly 300 males per 100 females in the Indian population. By 1931,

as may be seen in Table 1.8, those ratios had declined significantly and they have continued to do so down to 1970. Even so, the effects of past migrations were still present in the 1970 sex ratios, particularly in the Indian population. Although the Malay population had received some migrant influence, it was not great enough to move the sex ratio far from what is expected of an indigenous population.

The migration record becomes somewhat clearer when the sex ratios are shown by age, as in Table 1.9. It is not apparent, however, whether the deficiencies of Malay males in ages 15 to 45 were due to under-counting of males or to their out-migration, perhaps to Singapore. The excesses of males in the ages over 50 years quite probably are the remnants of migrations of Javanese and Sumatrans in earlier years. The Chinese and the Indians, particularly the latter, show large excesses of males in the older years. And, as an inspection of the ratios in ages under 25 years indicates, each population is building toward a normal sex distribution through reproduction of its Malaysian born members.

TABLE 1.1 – POPULATION OF MALAYSIA, 1817–1970

Year	Peninsula Malaysia[a]			Sabah[c]	Sarawak[c]
	Penang and Malacca	Six Federated States	All Peninsula Malaysia		
1817 & 1820	60,867[b]	-	-	-	-
1833 & 1834	120,614[b]	-	-	-	-
1851 & 1852	170,428[b]	-	-	-	-
1860	192,039[b]	-	-	-	-
1871	210,686[b]	-	-	-	-
1881	281,824[b]	-	-	-	-
1891	324,173	746,297	-	67,062[b]	-
1901	339,581	1,022,289	-	104,527[b]	-
1911	396,328	1,442,060	2,339,051	214,729	-
1921	447,906	1,785,273	2,906,691	263,252	-
1931	528,252	2,261,363	3,787,758	277,476	-
1939	-	-	-	-	490,585
1947	658,677	2,868,249	4,908,086	-	546,385
1951	-	-	-	334,141	-
1957	863,311	3,775,268	6,278,758	-	-
1960	-	-	-	454,412	744,529
1970	1,180,492	5,354,887	8,809,557	650,450	976,269

a. Adapted from Palmore, Chander and Fernandez, op. cit.

b. Estimated.

c. Data for years prior to 1960 obtained from L.W. Jones, The Population of Borneo London: The Athlone Press, 1966 , p. 31.

TABLE 1.2 – MALAYAN MIGRATION STATISTICS, 1931–1941, MIGRATIONAL SURPLUS OR DEFICIT

thousands

Year	All Communities	Malaysians	Chinese	Indians
1931	- 187.5	- 3.1	- 113.0	- 70.6
1932	- 163.0	- 4.0	- 97.5	- 59.6
1933	- 38.4	0.3	- 31.2	- 7.4
1934	142.1	3.4	61.6	73.8
1935	125.2	- 3.1	91.0	36.9
1936	82.8	- 4.3	75.8	10.0
1937	267.2	- 3.9	180.5	89.6
1938	31.0	- 5.7	53.2	- 20.1
1939	- 2.7	- 8.6	14.3	- 11.1
1940	- 8.3	- 4.9	3.3	- 7.6
1941 (Jan. – Oct.)	3.9	6.5	6.6	- 8.3

Note:- These figures relate to arrivals and departures.

Source: 1957 Population Census of the Federation of Malaya, Report No. 14, Table 4.5.

TABLE 1.2 (CONT'D.) – MALAYAN MIGRATION STATUSTICS, 1947–1958

thousands

Year	Malaysians			Chinese			Indians(1)			Other		
	Arrivals	Depar-tures	Net	Arrivals	Depar-tures	Net	Arrivals	Depar-tures	Net	Arrivals	Depar-tures	Net
1947		2.2		26.2	29.9	- 3.7	19.0	27.4	- 8.4	7.8	7.4	0.4
1948		5.8		38.4	40.8	- 2.4	24.2	25.1	- 0.9	9.4	8.8	0.6
1949		31.0		32.8	42.0	- 9.2	20.9	21.5	- 0.6	17.9	14.4	3.5
1950		84.5		32.7	34.1	- 1.4	29.3	21.9	7.4	35.8	29.3	6.5
1951		134.6		37.4	48.3	-10.9	32.0	25.7	6.3	25.5	23.7	1.8
1952		127.2		34.4	39.9	- 5.5	37.8	24.8	13.0	25.3	22.4	2.9
1953		101.9		31.9	33.5	- 1.6	39.2	19.9	19.3	24.5	21.4	3.1
1954		135.2		30.9	29.7	1.2	24.0	24.3	- 0.3	21.3	18.6	2.7
1955		169.3		36.5	33.7	2.8	31.0	27.9	3.1	24.5	21.6	2.9
1956		158.7		44.8	39.5	5.3	35.8	29.8	6.0	31.1	36.1	4.9
1957		168.8		49.2	46.7	2.5	37.8	32.1	5.7	33.6	28.4	5.2
1958		152.1		47.9	44.7	3.2	38.5	35.5	3.2	35.1	28.9	6.2

(1) Includes Pakistanis.

Source: 1957 Population Census of the Federation of Malaya, Report No. 14, Table 4.6.

TABLE 1.3 – POPULATION BORN IN PENINSULA MALAYSIA AND SINGAPORE LIVING IN OTHER COUNTRY, PENINSULA MALAYSIA AND SINGAPORE 1957 AND 1970

Race	Born in Peninsula Malaysia, Enumerated in Singapore	Born in Singapore Enumerated in Peninsula Malaysia	Net to Peninsula Malaysia
	1957 Census		
All Communities	124.9	40.0	- 84.9
Malay	54.1	8.9	- 45.3
Chinese	57.4	26.6	- 30.8
Indian	9.0	2.8	- 6.2
	1970 Census		
All Communities	187.2	48.6	-138.6
Malay	60.1	19.9	- 40.2
Chinese	110.7	24.0	- 86.7
Indian	13.6	3.7	- 9.9
Other	2.8	1.1	- 1.7

TABLE 1.4 – COMMUNITY COMPOSITION OF THE POPULATION OF PENINSULA MALAYSIA, 1921–1970

thousands

All Communities	1921		1931		1947		1957		1970	
	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent	Number	Per Cent
Malay	1,569	54.0	1,864	49.2	2,428	49.5	3,125	49.8	4,669	53.0
Chinese	856	29.4	1,285	33.9	1,885	38.4	2,334	37.2	3,136	35.6
Indian	439	15.1	571	15.1	531	10.8	707	11.3	934	10.6
Other	43	1.5	68	1.8	65	1.3	112	1.8	70	0.8
Total	2,907	100.0	3,788	100.0	4,908	100.0	6,279	100.0	8,809	100.0

TABLE 1.5 – PERCENTAGE DISTRIBUTION OF THE POPULATION BY AGE GROUPS, PENINSULA MALAYSIA: 1931, 1947, 1957, 1971

Age	1931	1947	1957	1971
0 - 4	12.0	13.0	17.8	15.3
5 - 9	11.7	14.8	15.2	15.1
10 - 14	8.5	12.2	10.8	13.7
15 - 19	7.9	9.0	9.8	11.5
20 - 24	9.7	7.6	8.3	8.7
25 - 29	11.2	7.5	7.0	6.2
30 - 34	10.7	6.9	5.9	5.9
35 - 39	7.8	6.9	5.4	4.9
40 - 44	7.2	6.1	4.7	4.3
45 - 49	3.9	4.8	4.3	3.5
50 - 54	4.6	3.9	3.6	3.2
55 - 59	4.8	2.2	2.6	2.4
60 - 64	-	2.3	1.8	2.2
65+	-	2.8	2.8	3.1
N.A.	-	-	-	-
Total %	100.0	100.0	100.0	100.0
N	3,761,125	4,878,438	6,278,758	9,054,631
0 - 14	32.1	39.9	43.8	44.0
15 - 64	N.A.	57.3	53.4	52.9
65+	N.A.	2.7	2.8	3.1
15 - 44	54.5	44.1	41.0	41.5
45+	13.4	16.0	15.1	14.4
0 - 24	49.8	56.5	61.9	64.2
25 - 44	36.9	27.4	23.0	21.4
20 - 39	39.3	28.9	26.6	25.8
Median Age	20.1	20.7	18.2	17.6
Dependency Ratio	N.A.	74.4	87.3	89.2
Youth Dependency Ratio	N.A.	69.6	82.1	83.3

Source:

A Report on the 1931 Census of British Malaya.

1947 *Census of Population* for the Federation of Malaya and the colony of Singapore, Table 10.

1957 Population Census of the Federation of Malaya, Table 4.

1971 Department of Statistics unpublished data.

TABLE 1.6 – PERCENTAGE DISTRIBUTION OF POPULATION BY AGE-GROUPS IN SELECTED COUNTRIES

Country	Year \ Age Group	0–14	15–39	40–64	65 & Over	Unknown	Total
Philippines	1968(E)	46.8	36.8	13.9	2.5	-	100.0
Venezuela	1969(E)	47.1	35.7	14.8	2.4	-	100.0
United Arab Republic	1960(C)	42.8	35.6	18.2	3.5	-	100.1
India	1970(E)	41.6	38.1	17.2	3.1	-	100.0
Hong Kong	1969(E)	38.1	36.0	22.2	3.8	-	100.1
France	1968(C)	25.1	34.7	27.7	12.6	-	100.1
United States	1969(E)	29.2	34.9	26.3	9.6	-	100.0
Japan	1969(E)	24.0	44.2	24.9	6.9	-	100.0
Republic of Korea	1970(E)	40.4	38.6	17.2	3.8	-	100.0
Mexico	1970(C)	46.2	36.2	13.9	3.7	-	100.0
Taiwan	1968(E)	42.9	36.5	17.9	2.8	-	100.1
Indonesia	1965(E)	43.9	36.0	17.7	2.3	0.1	100.0
Peninsula Malaysia	1970*	44.3	36.8	15.7	3.2	-	100.0

Source: United Nations Demographic Year Book, 1970.

* Final age distribution Census 1970 (mid). (E) = Estimated data. (C) = Census data.

TABLE 1.7 – PERCENTAGE DISTRIBUTION OF THE POPULATION BY AGE GROUPS AND COMMUNITY, PENINSULA MALAYSIA: 1957 AND 1970

Age	1957				1970			
	Malay	Chinese	Indian	Total	Malay	Chinese	Indian	Total
0 - 4	18.6	16.7	18.8	17.8	16.0	14.0	14.4	15.6
5 - 9	15.0	15.6	15.2	15.2	15.9	14.9	15.8	15.4
10 - 14	10.7	11.9	8.5	10.8	13.6	13.5	14.6	13.6
15 - 19	9.7	10.3	8.1	9.8	10.9	11.4	11.5	11.1
20 - 24	8.5	7.8	8.2	8.3	8.2	8.9	8.6	8.5
25 - 29	7.4	6.2	7.3	7.0	6.1	6.8	5.2	6.2
30 - 34	6.5	4.7	6.5	5.9	6.1	6.2	5.6	6.1
35 - 39	5.8	4.4	7.1	5.4	4.7	4.8	5.2	4.8
40 - 44	4.4	4.6	6.0	4.7	4.5	3.9	4.3	4.2
45 - 49	3.7	4.9	5.4	4.3	3.8	3.0	4.1	3.5
50 - 54	3.1	4.1	3.8	3.6	3.2	2.9	3.6	3.1
55 - 59	2.2	3.2	2.7	2.6	2.2	2.9	2.9	2.5
60 - 64	1.6	2.3	1.3	1.8	2.0	2.6	2.0	2.2
65+	2.8	3.3	1.1	2.8	2.8	4.2	2.2	3.2
Total %	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
N	3,125,474	2,333,756	696,186	6,278,758	4,671,874	3,131,320	936,341	8,809,557
Median Age	17.9	17.8	19.6	18.2	16.9	18.2	17.2	17.5
0 - 14	44.3	44.2	42.5	43.8	45.5	42.4	44.8	44.6
15 - 64	52.9	52.5	56.4	53.4	51.7	53.4	53.0	52.2
65+	2.8	3.3	1.1	2.8	2.8	4.2	2.2	3.2
15 - 44	42.3	38.0	43.2	41.0	40.5	42.0	40.4	40.9
45+	13.4	17.8	14.3	15.1	14.0	15.6	14.8	14.5
0 - 24	62.5	62.3	58.8	61.9	64.6	62.7	64.9	64.2
25 - 44	24.1	19.9	26.9	23.0	21.4	21.7	20.3	21.3
Total Dependency Ratio	89.3	90.3	77.3	87.3	94.5	88.1	89.3	91.4

Sources: 1957 Census.
1970 Census.

TABLE 1.8 – SEX RATIOS BY COMMUNITY, PENINSULA MALAYSIA

1931, 1947, 1957, 1970

Year	All Communities	Malay	Chinese	Indian	Other
1931	142.6	102.6	205.9	193.8	131.3
1947	112.2	98.9	122.8	145.6	112.6
1957	106.5	98.7	108.0	134.0	153.7
1970	101.5	98.8	101.8	113.9	110.5

Source: 1931, 1947, 1957, 1970 Censuses. Males per 100 females.

TABLE 1.9 – SEX RATIOS BY AGE AND COMMUNITY, PENINSULA MALAYSIA, 1970

Age	Sex Ratios				
	Malay	Chinese	Indian	Other	All Races
0 - 4	102	107	104	106	104
5 - 9	102	107	105	105	104
10 - 14	100	106	104	103	103
15 - 19	97	100	100	104	98
20 - 24	96	97	100	121	97
25 - 29	95	103	106	120	99
30 - 34	94	105	100	109	98
35 - 39	91	97	110	117	95
40 - 44	97	93	145	121	100
45 - 49	94	85	154	120	97
50 - 54	102	87	176	119	103
55 - 59	107	100	187	110	110
60 - 64	98	107	200	103	109
65 - 69*	119	113	246	92	123
70 - 74	102	99	229	86	106
75 - 79	123	83	264	81	103
80 +	85	64	180	62	80
Unknown	106	105	116	148	68
Total	99	102	114	110	101
Total Population	4,672,822	3,131,941	934,775	69,897	8,809,557

* Wayfaring and transient population not included for ages 65 and over.

CHAPTER II

MORTALITY AND FERTILITY

Vital Statistics Prior to 1947

Birth and death registration was instituted in the Straits Settlements at the end of the 19th Century and in the Federated Malay States in 1920. But it did not commence in other states until the late 1920's and not until 1946 were the vital statistics of all the states of Malaya published in the same volume.

Vlieland, the Superintendent of the census of 1931, stresses the unreliability of birth statistics in the less advanced states that had only recently introduced registration and notes that for the decade 1911–1920, during which reported death rates exceeded the birth rates, it is quite likely that births were unrecorded to the extent of over 25 per cent. "Birth registration indeed was unpopular as to report a birth entailed a journey and expense without any clear or immediate compensating advantage. In the more advanced states birth registration was very far from complete, with the less advanced states suffering from the most under-registration".[1]

Death registration prior to 1947, on the other hand, is believed to have been more complete.

> "Failure to report a death may involve those responsible in much more serious trouble than failure to report a birth. The control of burial makes concealment of, or mere failure to report, a death difficult, while the funeral rites of the different races in Malaya tend to make it impossible for a death to pass unremarked. It may be taken that, at least in those parts of Malaya where compulsory registration of deaths has been in force for any length of time, the registered number of deaths is very nearly accurate....."[2]

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1. Census Report, 1931, pp. 206–108.
2. Ibid, page 109.

Early censuses offer no help in the estimation of number of births. Questions on the number of children ever born to each woman and the number still living were not asked until the census of 1947. In an effort to retrieve births for the census years from the population enumerated as age 0–1 year, it was found that the discrepancy between the number of infants enumerated and the number of births registered to be far too large to be accounted for solely by infant mortality (see Table 2.1). Thus, not only was there an under-registration of births, of undetermined extent, but also a rather substantial under-enumeration of infants in the censuses.

Even with fairly complete counts of births and deaths the computation of crude rates would have produced misleading results. For, as we have seen in the preceding chapter, the age and sex composition of the population was distorted by heavy influxes of migrants and that rates of both death and birth, particularly the latter, are depressed well below representative levels.

Vital Statistics After 1947

After 1947 the quality of mortality and fertility data greatly improved. A number of estimates of the completeness of registration have been published. Saw Swee-Hock estimated that for the period 1947 to 1957 births were under-registered by 10.24 per cent.[3] Later, Cho, Palmore and Saunders concluded that for the period 1962–1966 and for 1967, birth registration was approximately 95 per cent complete.[4] Data from the 1967–68 Socio-Economic Survey suggested that only 1.9 per cent of the births and 3.3 per cent of the deaths were not registered. Using internal consistency checks Hirschman demonstrated that, for the years from 1946 to 1968, there was very little variation among states and among communities, sexes and urban-rural subdivisions with reference to mortality rates.[5] One can therefore proceed to an examination of recent trends in births and deaths of Peninsula Malaysia with some confidence in the data. Such is not the case, however, with Sabah and Sarawak. There, it is estimated that birth and death registrations are not more than 50 per cent complete. As such, nothing reliable can be said at this time about vital rates, to say nothing of trends, in those parts of Malaysia.

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3. Saw Swee Hock, "A Note on the Under-Registration of Births in Malaya during the Inter-censal Period," Population Studies, XVIII No. 1, 1964: 35–41.

4. Cho, Palmore, Saunders, "Recent Fertility Trends in West Malaysia," Demography 5(2), 732–744.

5. C. Hirschman, Evaluation of Mortality Data in the Vital Statistics of West Malaysia (Research Paper No. 5), Kuala Lumpur, Department of Statistics, 1971.

Mortality Since 1947

It seems probable that mortality decline might have begun sometime in the 1930's. In any event, by 1947, evidence of past declines having occurred seems conclusive. From the 19.4 per 1,000 reported for 1947 the crude rate fell, with one or two interruptions, to a low of 7.3 in 1970, as may be observed in Table 2.2.

A death rate as low as 7.3 per 1,000 is partly a function of the Peninsula Malaysia age composition. The median age in 1970 was 17.8. Standarizing the rate on the age distribution of the stationary population yields an adjusted rate of 15.2, more than twice the crude rate.

In Table 2.3 are shown infant mortality rates for 1957 and 1967 and for single years from 1967 to 1971. There was a sharp decline from 1957 to 1967 and thereafter the decline has been more gradual. The community differences are noteworthy. The Malays began the period with the highest rates and the Chinese with the lowest. By 1971 the differentials have been considerably reduced, though the Chinese were still well below the other groups. Neo-natal mortality rates show the same community differentials and the greatest improvement among the Malays, as may be seen in Table 2.4.

A general decline in age specific mortality between 1957 and 1970 brought a marked improvement in life expectancy. At the beginning of the period the Malays lagged far behind the other groups, as Table 2.5 shows, but by the end of the period they had gained 12 to 13 years and had extended their life expectancy beyond that of the Indians.

Fertility Since 1947

It will be recalled from Table 2.2 that the crude birth rate in Peninsula Malaysia varied around the 40's between 1947 and 1957 and then entered upon a decline that has continued to 1970. The reduction has been from an average rate for the 1947–1957 intercensal period of 43.6 to 33.9 in 1970, a reduction of 22 per cent.

For an explanation of birth rate decline we rely mainly on an analysis prepared by Cho, Palmore and Saunders.[6] They constructed the trend from 1957 to 1967 from 1957 census data and data secured in an inter-censal KAP Survey. We have brought the trend forward with the addition of 1970 census data.

The decline in the total or crude birth rate was a product of two complementing changes. The first was a reduction in the rates at which women of given ages had births. Table 2.6 shows a decline in age specific rates in all age groups. The most dramatic decline occurred in the 15–19 age group, but in all of the prime reproducing years, that is, 15–29 years, substantial reductions occurred. Thus, the reduction cannot be attributed to shifts in age composition. That conclusion is reinforced by a comparison of standardized with unstandardized rates, as in Table 2.7. The introduction of a control on age makes very little difference in the rates.

A second change that contributed significantly to the decline of fertility after 1957 was a decline in the proportions married, especially in the young age groups. As may be seen in Table 2.8, the proportion married in the 15–19 years age group was reduced to less than half of what it had been. In the next age group the reduction amounted to approximately one-third. Some reduction also occurred in the 25–29 years age group.

When age and marital status are controlled simultaneously, as in Table 2.9, the joint effect of the two distributions is shown to be significant. But since it was observed in a preceding paragraph that none of the change could be attributed to shifts in age composition, it must be concluded that all of the change not explained by reductions in age-specific rates was due to changes in the proportions married. Cho, Palmore and Saunders estimated that between 33 and 48 per cent of the fertility decline between 1957 and 1961 and between 28 and 21 per cent of the decline from 1957 to 1962–1966 were due to changes in the proportions of women married. Introducing the 1970 census data we find that approximately 50 per cent of the 1957 to 1970 decline and over 80 per cent of the 1962–1966 to 1970 decline can be so explained.

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6. Op. cit.

The reduction of age specific fertility noted in a preceding paragraph appears again in the age-marital specific fertility rates. In Table 2.10 substantial reductions are seen to have occurred in the 15–19 age group and in all ages over 30 years. Some of the effects of measurement problems appear in the somewhat erratic courses followed in the time series of the several age groups. For this reason we regard the findings highly indicative, though not conclusive.

Cho, Palmore and Saunders were also able to observe change in age specific rates in metropolitan, urban and rural populations, for the years from 1957 to 1966. The trend can be extended to 1970 for metropolitan areas. It is to be noted in Table 2.11 that in all classes of places age specific fertility rates declined. In metropolitan and urban populations the declines occurred in all age groups. But in rural area it appears that the decline was confined to ages below 25 years. A longer time series, of course, might show a different pattern of decline.

The reduction of fertility in the metropolitan population has operated in all the community groups (Table 2.12) and in roughly comparable degrees. The similarity among communities appears in virtually every age group; the two oldest age categories are least consistent in this respect.

Family Planning

Fertility decline in Peninsula Malaysia began some 8 years before a national family planning program was inaugurated in 1965. This is not to say, of course, that family planning was unknown before that date. The 1966–1967 Family Survey showed that in metropolitan areas 39 per cent of currently married women 15–44 years of age had used contraception at some time. The corresponding figures in small urban places and rural areas were 27 per cent and 6 per cent, respectively. Active usage at the time of the Survey were 31 per cent in metropolitan, 21 per cent in small urban and 2 per cent in rural areas. Subsequent surveys have indicated a general increase in the frequency of attitudes favourable to family planning.

Measurement of the effects of the national family planning program is in its early stages. The one systematic study completed thus far dealt with the fertility rates of acceptors during the first three years of the program. This study matched clinical records with birth registration records and compared the performance of acceptors with age-marital specific fertility rates in the total Peninsula Malaysian population.[7] The results were ambiguous, largely because the only controls that could be obtained were age and method of contraception employed. The data strongly suggest a selectivity by the program of individuals strongly predisposed to family planning.

The Demographic Transition

We have noted that the mortality rate in Peninsula Malaysia entered upon a decline well before 1947, though the beginning date cannot be determined and that the birth rate lingered at a high level until 1957, after which it, too, went into decline. Thus until perhaps as late as 1957 the population was in a period of accelerating growth. The annual rate of increase had moved from 2.3 per cent to 3.4 per cent. Since then the growth rate has been decelerating even though reductions of fertility have been offset to some extent by further reductions in mortality. If our reading of the trends is correct we may expect the gap between birth and death rates to continue to narrow. But we have no way of knowing how rapidly that will occur. A study of the time lapsed in the transition of birth rates from 35 per 1,000 to 20 or less per 1,000 has shown that in the few South-East Asian countries in which that has occurred accomplished the change in 15 years. Eastern European countries required 31 years and western nations took 48 years to affect the same change.[8] The pace of modernization in Peninsula Malaysia promises further rapid reductions in fertility. But that a sufficient reduction in total fertility, as represented in the crude rate, can occur so as to bring the rate to 20 per 1,000 by 1982 or 1983 may be doubtful. There is inherent in the age composition a powerful growth momentum in Peninsula Malaysia's population. A recent report has indicated that should the net reproduction rate fall to 1.0 in 1980 to 1985 growth would continue into 2040–2045.[9] It seems unlikely, therefore, that the demographic transition will be concluded in the near future.

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7. J. Timothy Johnson, Tan Boon Aun, and Leslie Corsa, "Assessment of Family Planning Effects on Births: Preliminary Results Obtained through Direct Matching of Birth and Programme Acceptor Records", Population Studies, XXVII (1973): 85–96.
8. Dudley Kirk "A New Demographic Transition", in National Academy of Sciences, Rapid Population Growth Baltimore, Johns Hupkins Press, 1971, p. 132.
9. U.S. Bureau of the Census, The Two-Child Family and Population Growth: An International View, Washington, D.C., U.S. Government Printing Office, 1971, p. 24.

TABLE 2.1 – INFANTS ENUMERATED AND REGISTERED BIRTHS

CENSAL YEARS 1911–1970

Year	Number Aged 0–1 Enumerated at the Census	Number of Registered Births
1911 Federated Malay States & Straits Settlements	18,683	38,349
1921 Federated Malay States & Straits Settlements	31,343	62,179
1931 West Malaysia	73,740	Not Available
1947 West Malaysia	122,870	210,815
1957 West Malaysia	224,562	289,905
1970 West Malaysia	264,258	297,358

Sources: Data on infants from the tables on age of the Census Reports for said years.

Data on registered births:

1911 and 1921 – The Census of British Malaya, 1921, Table B.
1947 – The Report of the Registrar General on Births and Deaths, 1947, page 2.
1957 – Vital Statistics, West Malaysia, 1971, Table 9.01.
1970 – 1970 Census data, preliminary release, Department of Statistics.

TABLE 2.2 – CRUDE BIRTH RATES, CRUDE DEATH RATES AND NATURAL INCREASE, PENINSULA MALAYSIA: 1947–1970

Year	Birth Rate	Death Rate	Natural Increase Rate
1947	42.9	19.4	23.5
1948	40.4	16.2	24.1
1949	43.8	14.2	29.6
1950	42.0	15.8	26.2
1951	43.6	15.3	28.3
1952	44.4	13.6	30.8
1953	43.7	12.4	31.3
1954	43.8	12.2	31.6
1955	43.0	11.5	31.6
1956	45.5	11.3	34.3
1957	46.2	12.4	33.7
1958	43.2	11.0	32.2
1959	42.2	9.7	32.4
1960	40.9	9.5	31.4
1961	41.9	9.2	32.7
1962	40.4	9.4	31.0
1963	39.4	9.0	30.5
1964	39.1	8.1	31.1
1965	36.7	7.9	28.8
1966	37.3	7.6	29.7
1967	35.3	7.5	27.8
1968	35.2	7.6	27.7
1969	33.0	7.2	25.8
1970	33.9	7.3	25.2

Sources:

1947–1963 rates are for the Malayan Union, or what today is Peninsula Malaysia. From the Report of the Registrar-General on Population, Births and Deaths, Registration Department, Kuala Lumpur, yearly publication 1946–1963.

1964–1969 rates are for Peninsula Malaysia, from Vital Statistics, Peninsula Malaysia, Department of Statistics, Kuala Lumpur, yearly publication, 1963–1971.

1970 rates are from the 1970 Census data and therefore show a slight increase from the rates derived from the vital registration system.

TABLE 2.3 – INFANT MORTALITY RATES BY COMMUNITY AND SEX, PENINSULAR MALAYSIA: 1957, 1967–1971

	All Communities	Malay	Chinese	Indian
Males				
1957	84.0	107.7	50.9	82.8
1967	50.1	59.2	34.3	54.6
1968	46.9	53.7	34.0	53.5
1969	48.2	54.4	34.9	58.7
1970	45.9	53.8	32.2	50.7
1971	43.6	51.6	27.9	51.1
Females				
1957	66.5	82.9	42.6	68.3
1967	39.8	47.1	25.8	48.3
1968	37.3	41.6	25.5	52.3
1969	38.0	43.0	27.1	46.0
1970	35.4	41.0	24.6	41.1
1971	33.2	39.2	21.5	39.3

Source: Vital Statistics, West Malaysia, 1971, Table 29.

TABLE 2.4 – NEO-NATAL MORTALITY RATES BY COMMUNITY AND SEX, PENINSULA MALAYSIA, 1957, 1967–1971

	All Communities	Malay	Chinese	Indian
Males				
1957	33.5	39.5	24.6	34.8
1967	27.1	29.3	23.1	29.3
1968	26.4	28.0	23.0	29.8
1969	26.6	27.8	23.0	32.6
1970	26.5	27.8	23.0	32.1
1971	26.0	28.5	20.2	31.2
Females				
1957	25.5	29.5	19.6	26.2
1967	20.3	22.2	16.1	24.5
1968	19.6	20.6	15.8	27.1
1969	20.1	21.5	16.8	23.1
1970	19.1	20.2	16.2	23.7
1971	18.8	20.7	14.5	22.5

Source: Vital Statistics, 1971, West Malaysia, Table 33.

TABLE 2.5 – LIFE EXPECTANCY, BY SEX AND COMMUNITY, PENINSULA MALAYSIA, 1957 AND 1969–71

	1957[a]		1969–1971[b]	
	Males	Females	Males	Females
All Communities	55.8	58.2	63.5	68.2
Malay	50.2	53.4	63.7	65.5
Chinese	59.5	66.7	65.1	73.4
Indian	57.5	54.6	60.2	63.9

Source a. 1957 Population Census of the Federation of Malaya, Report No. 14.

b. Department of Statistics, Abridged Life Tables Malaysia, 1970 (Kuala Lumpur, 1974).

TABLE 2.6 – CRUDE, TOTAL AND AGE SPECIFIC FERTILITY RATES AND PER CENT CHANGES IN RATES, PENINSULA MALAYSIA, 1957–1970

Year and Period	Crude Birth Rate	Total Fertility Rate	Age Specific Fertility Rates					
			15 – 19	20 – 24	25 – 29	30 – 34	35 – 39	40 – 44
1957	46.2	6,660	123	329	347	272	182	79
1957–1961	42.9	6,050	173	285	276	254	168	57
1962–1966	38.6	5,460	109	237	255	241	163	87
1970	33.9	4,940	56	234	275	224	142	57
Per Cent Change								
1957 to 1957–61	- 7	- 9	+ 41	- 13	- 21	- 7	- 8	- 28
1957 to 1962–66	- 16	- 18	- 11	- 28	- 27	- 11	- 10	+ 10
1957–61 to 1962–66	- 10	- 10	- 37	- 17	- 8	- 5	- 3	+ 53
1957 to 1970	- 27	- 26	- 54	- 29	- 21	- 18	- 22	- 28
1957–61 to 1970	- 21	- 19	- 68	- 18	-	- 12	- 15	-
1962–66 to 1970	- 12	- 10	- 49	- 1	+ 8	- 7	- 13	- 34

TABLE 2.7 – CRUDE AND STANDARDIZED BIRTH RATES AND PER CENT CHANGES IN RATES, PENINSULA MALAYSIA, 1957–1970

Year	Rates	
	Crude Birth Rate	Standardized Birth Rate[a]
1957	46.2	46.2
1957–1961	42.9	42.7
1962–1966	38.6	37.1
1970	33.9	33.4
Per Cent Change		
1957 to 1957–1961	- 7	- 8
1957 to 1962–1966	- 16	- 20
1957–61 to 1962–66	- 10	- 13
1957 to 1970	- 27	- 28
1962–1966 to 1970	- 12	- 10

a. Standardized on 1957 age distribution.

TABLE 2.8 – PER CENT CURRENTLY MARRIED WOMEN IN EACH AGE GROUP, PENINSULA MALAYSIA: 1957, 1966–67, 1970

	Age						
	15–19	20–24	25–29	30–34	35–39	40–44	45–49
Per Cent Married							
1957	35	75	90	91	88	81	72
1966–1967	24	65	86	90	84	86	74
1970 Currently Married	15	55	83	90	90	86	80
1970 Ever Married	16	57	86	94	97	98	98(45+)
Per Cent Change							
1957 to 1966–1967	- 31	- 13	- 4	- 1	- 5	+ 6	+ 3
1957 to 1970	- 57	- 26	- 8	- 1	+ 2	+ 6	+ 11
1966–1967 to 1970	- 37	- 15	- 4	-	+ 7	-	-

TABLE 2.9 – CRUDE BIRTH RATES STANDARDIZED ON 1957 AGE AND MARITAL STATUS DISTRIBUTIONS, PENINSULA MALAYSIA, 1957–1970

Year	Crude Birth Rate	Standardized Birth Rate
1957	46.2	46.2
1957–1961	42.9	44.0
1962–1966	38.6	40.2
1970	33.9	39.3
	Per Cent Change	
1957 to 1957–61	- 7	- 5
1957 to 1962–66	- 16	- 13
1957–61 to 1962–66	- 10	- 9
1957 to 1970	- 27	- 15
1962–66 to 1970	- 12	- 2

TABLE 2.10 – AGE-SPECIFIC FERTILITY RATES FOR CURRENTLY MARRIED WOMEN: 1957, 1957–61, 1962–66, 1963–67 AND 1970

	Age-Specific Fertility Rates					
	15–19	20–24	25–29	30–34	35–39	40–44
1957	354	441	385	299	208	98
1957–1961	540	393	312	279	193	70
1962–1966	405	351	296	268	192	104
1963–1967†	411	396	335	245	163	68
1970*	352	412	320	238	148	59
Per Cent Change						
1957 to 1957–61	+ 53	- 11	- 19	- 7	- 7	- 29
1957–61 to 1962–66	- 25	- 11	- 5	- 4	- 1	+ 49
1957 to 1970	- 1	- 7	- 17	- 20	- 29	- 40
1962–66 to 1970	- 13	+ 17	+ 8	- 11	- 23	- 43
1963–67 to 1970	- 14	+ 4	- 4	- 3	- 9	- 13

† Estimated from the 1967 Socio-Economic Survey data.
* 1970 data are for ever-married women.

TABLE 2.11 – AGE-SPECIFIC FERTILITY RATES AND TOTAL FERTILITY RATES FOR METROPOLITAN, URBAN AND RURAL AREAS, PENINSULA MALAYSIA: 1957–1961, 1962–1966, 1970

	Total Fertility Rate	Age-Specific Fertility					
		15–19	20–24	25–29	30–34	35–39	40–44
Metropolitan Areas*							
1957–1961	5,170	86	252	284	229	127	56
1962–1966	4,615	55	217	260	215	133	43
1970	3,425	28	153	214	164	94	32
Urban Areas**							
1957–1961	5,830	127	291	324	250	127	47
1962–1966	4,805	60	228	290	215	122	46
Rural Areas***							
1957–1961	6,280	226	322	286	214	145	63
1962–1966	5,775	151	292	299	207	146	60
	Per Cent Change						
Metropolitan Areas							
1957–61 to 1962–66	- 11	- 36	- 14	- 8	- 6	+ 5	- 23
1957–61 to 1970	- 34	- 67	- 39	- 25	- 28	- 26	- 43
1962–66 to 1970	- 26	- 49	- 29	- 18	- 24	- 29	- 26
Urban Areas							
1957–61 to 1962–66	- 18	- 53	- 22	- 10	- 14	- 4	- 2
Rural Areas							
1957–61 to 1962–66	- 8	- 33	- 9	+ 5	- 3	+ 1	- 5

* With a population of 75,000+ in 1957: Kuala Lumpur, Kelang, Johore Bahru, Georgetown and Ipoh.

** Population 7,660–74,999 in 1957.

*** Population less than 7,660 in 1957.

TABLE 2.12 -- AGE-SPECIFIC FERTILITY RATES AND TOTAL FERTILITY RATES BY COMMUNITY, METROPOLITAN AREAS, PENINSULA MALAYSIA: 1957–1961, 1962–1966 AND 1970

Metropolitan Areas*	Total Fertility Rate	Age-Specific Fertility					
		15–19	20–24	25–29	30–34	35–39	40–44
All Communities							
1957–1961	5,170	86	252	284	229	127	56
1962–1966	4,615	55	217	260	215	133	43
1970	3,425	28	153	214	164	94	32
Malay							
1957–1961	5,430	132	300	296	197	118	43
1962–1966	5,550	94	261	276	242	161	73
1970	3,775	41	169	215	174	115	41
Chinese							
1957–1961	5,015	59	206	306	248	140	44
1962–1966	4,250	41	177	249	199	125	59
1970	3,175	17	131	211	158	88	30
Indian							
1957–1961	6,165	154	309	334	281	131	24
1962–1966	5,475	101	304	287	214	136	53
1970	3,970	55	224	221	171	91	32
		Per Cent Change					
All Communities							
1956–61 to 1962–66	- 11	- 36	- 14	- 9	- 6	+ 5	- 23
1957–61 to 1970	- 34	- 67	- 39	- 25	- 28	- 26	- 43
1962–66 to 1970	- 26	- 49	- 29	- 18	- 22	- 29	- 26
Malay							
1957–61 to 1962–66	+ 2	- 29	- 13	- 7	+23	- 36	+70
1957–61 to 1970	- 32	- 69	- 44	- 27	- 12	- 3	- 5
1962–66 to 1970	- 30	- 56	- 35	- 22	- 28	- 29	- 44
Chinese							
1957–61 to 1962–66	- 15	- 30	- 14	- 19	- 20	- 11	+34
1957–61 to 1970	- 37	- 71	- 36	- 31	- 36	- 37	- 49
1962–66 to 1970	- 25	- 59	- 26	- 15	- 21	- 30	- 32
Indian							
1957–61 to 1962–66	- 11	- 34	- 2	- 14	- 24	+ 4	+121
1957–61 to 1970	- 36	- 64	- 27	- 34	- 39	- 30	+ 33
1962–66 to 1970	- 27	- 46	- 26	- 23	- 20	- 33	- 40

* Areas with 75,000+ population at the time of the 1957 Census: Kuala Lumpur, Johore Bahru, Georgetown, Ipoh and Kelang.

CHAPTER III

INTERNAL MIGRATION AND POPULATION DISTRIBUTION

Migration Flows

The population of Peninsula Malaysia has been relatively stable in at least one sense. In 1957, the first census in which a migration question was asked, only 8 per cent of the population were living outside their states of birth. By 1970 that proportion had risen to no more than 11 per cent. The drift of population away from states of birth has changed somewhat between the two censuses, as can be seen in Table 3.1. As of 1957 seven states had net gains from inter-state exchanges of population, but by 1970 the number of gaining states had dropped to four, all of which were among those with gains in the preceding census. The tendency for population to concentrate became pronounced in the 1970 census. Two states, Selangor the seat of the national capital, and Pahang, a state of major development attention, had very substantial net gains, while all other states lost population through migration or had very modest net gains.

The 1970 census also included a question on previous place of residence. From that question it is possible to observe the directions of the most recent inter-state moves. These, Table 3.2 reveals, conform to the pattern noted in the movements from states of birth reported in 1970. That is, only a few states gained and most of the movement gravitated to Selangor and Pahang. Of interest in the table is the volume of movement required to produce a given net change. In several states the net change, whether positive or negative, is less than 10 per cent of total amount of inter-state movement. In others the net change exceeds 30 per cent of all movement. Whether the ratios of net to total migration indicate the occurrence of wasteful movements or of substitutions of move for less appropriate people in the respective states cannot be determined from the available data.

From the two questions on place of birth and place of previous residence it is possible to distinguish various migration flows within and between states. In Table 3.3 it can be seen that non-migrants, defined as persons living in the locality of birth in 1970, ranged from a low of 49 per cent in Selangor to over 76 per cent in Kelantan. The earlier reference to population stability seems now in need of revision. Almost 40 per cent of the population have changed their residences at least once in their life times. Surprisingly, very few of those residence changes occurred within localities. It is possible that there may have been confusion in the understanding of

the meaning of locality, in as much as the normal expectation is for the frequency of moves to vary inversely with distance. But, in fact, the short distance principle does not apply consistently in the intra-state vs. inter-state comparison. Although intra-state moves out-number inter-state moves, there are notable exceptions, especially in those states that have gained heavily in inter-state exchanges.

A question of some interest is: To what extent do the inter-state moves from previous places of residence make a difference in the over-all distribution of population in Peninsula Malaysia? This question can be answered by adding the net losses to the respective losing states and by subtracting the net gains from the gaining states, in other words, by reconstructing the 1970 populations on the assumption that no migration had occurred. This is done in Table 3.4. A comparison of the two distributions, that is, with and without migration, indicates that migration changed the distribution of population very slightly. To restore the 1970 census distribution to what it would have been had there been no migration, would require the relocation of no more than 1.7 per cent of the population.

A third migration question included in the 1970 census appeared in the form of a duration of residence question. If we consider as migrants only those who lived in their present places of residence for less than 5 years, we find that approximately 3.3 per cent of the population 5 years of age and over has moved across a civil division boundary each year during the past 5 years.

The age selectivity of internal migration is described in Table 3.5. It is clear that migrants were concentrated in the ages from 15 to 35 years, and particularly in the 20 to 29 years age range. The selectivity among Chinese and Others with reference to those ages was much more pronounced than was true of Malays and Indians. Age selectivity was least characteristic of the Indian population.

Urban Population Change

No systematic study of the characteristics of nucleated populations has been done in Malaysia. But because of the general tendency for rural people to live in village aggregations a rather high population minimum is used to identify an urban place. The definition employed in the census is any gazetted place (having local

self-government) with 10,000 or more population. Measured on that basis urban population has increased at a rapid rate in every inter-censal interval since 1911, as may be seen in Tables 3.6 and 3.7. Moreover, the urban growth rate has exceeded the rate of increase in the total population by a large margin in every inter-censal interval. The effect of the rapid rate of urban growth has been to raise the urban proportion of the total population from less than 10 per cent (9.97) in 1911 to over 28 per cent (28.73) in 1970.

Accompanying urban growth has been a progressive diffusion of urbanization more widely over the peninsula. In 1911 three west coast states – Penang, Perak and Selangor encompassed almost four-fifths (79.5 per cent) of the total urban population. By 1970, although the same three states continued to be the most highly urbanized, their combined share of the total urban population has dropped to 61.6 per cent. Despite very rapid urban population growth in the east coast states, especially in recent years, none of them had as much as 5 per cent of its population in urban places in 1970.

Urban population change by size of places differs with the way it is measured. If it is measured with area held constant, that is, growth in places classified as of the beginning of the inter-censal interval the results are as shown in Table 3.8 for 1947–57 and 1957–70. It is apparent that not all sizes of places participated equally in growth. In 1947–57 places of 50,000–75,000 grew more slowly than the total population and barely exceeded the growth rate in non-urban or rural territory. The 10,000–25,000 size class also lagged well behind the general urban growth rate. In the next inter-censal interval, 1957–70, there was more uniformity of growth rates among size classes, though places of under 50,000 population grew relatively slowly. It is also to be noted that the difference between urban and non-urban growth rates was reduced considerably in the later period.

If, on the other hand, urban growth is measured in terms of a constant definition, that is, with population classified by size of place at the beginning and again at the end of inter-censal intervals, as shown in Table 3.9, the results are somewhat different. Because growth moved many places from one size class to another some size classes grew at extraordinary rates, as did the 50,000–75,000 class in 1947–57 and the 75,000 and over class in 1957–70, while others grew slowly or even lost population, as occurred in places of less than 50,000 population in both inter-censal periods. The effect of reclassification of places is also apparent in the somewhat slower growth rates in non-urban population shown in Table 3.3 as compared with those in Table 3.2. Non-urban territory lost the population of places that had grown to or above the minimum size requirement for urban definition.

Census questions on migration do not permit a measurement of net migration in urban places within an inter-censal interval. Nevertheless, it is possible to estimate the magnitudes of the several components of urban growth, if one may assume that the expected urban increase in each state corresponded to what would have occurred had each state urban population grown at the rate of the total peninsula population. The difference between the expected and the actual increase can be assigned to migration. That series of estimates is presented in Table 3.10 for three components of growth – natural increase, migration and reclassification. Thus, it may be seen that in 1947–57 urban growth in the peninsula at large was distributed almost equally among the three components. But there were large variations among the states. Urban population in Malacca grew almost entirely from natural increase. Natural increase also dominated urban growth in Penang. In Trengganu migration was a negative factor in urban growth. The only state in which migration can be said to have made a significant contribution to urban growth was Selangor. The influence of migration on urban growth appears to have subsided noticeably in 1957–70. Natural increase was responsible for three-fifths of all urban growth, migration for less than one-fifth, and reclassification for slightly over one-fifth. In three states, urban areas lost population through migration, losses that were compensated for by either natural increase or reclassification. Selangor alone received an important increment to its urban population from migration. It should be recognized that the migration estimates apply only to the places classified as urban as at the beginning of inter-censal intervals. Migration doubtlessly was a factor in the growth of places that attained urban size within inter-censal intervals and whose population were reclassified as urban at the ends of the intervals. In any event Table 3.10 provides no support for a conclusion that massive rural to urban migrations have occurred in Peninsula Malaysia. But that does not gainsay the possibility that the rural-urban movements that have occurred were in excess of urban opportunities.

Urbanization of the Communities

While the Malay population was still concentrated in rural areas in 1970, its urbanization since 1947 has been marked. The Malay proportion of the urban population increased from less than one-fifth to over one-fourth, as may be seen in Table 3.11. The process has been most pronounced in Selangor, Negri Sembilan and Kelantan. Kelantan and Trengganu are the only states in which the urban areas are dominated by Malay numbers; in no other states did the Malays comprise as much as two-fifths of the urban population. The Chinese share of urban population declined in ten of the eleven states, Kedah being the exception. Indian urban population also declined in all states but two, Pahang and Negri Sembilan.

In the redistribution process all community groups have drifted toward larger sizes of places. As may be seen in Table 3.12, places of 50,000 and over gained larger proportions of Malays at the expense of all smaller size classes. Places of 75,000 and over increased their shares of Chinese, but so also did places of less than 10,000 population. Indians, too, congregated increasingly in places of 75,000 and over.

Urban-Rural Age Differences

Age data were not tabulated for urban and rural areas prior to the census of 1970. Hence we can only note an urban-rural difference for the latest census year. That is presented in broad age categories in Table 3.13. The relatively greater concentration of urban population in the economically active years was as expected. A greater urban-rural contrast is evident in Sabah and Sarawak than in Peninsula Malaysia. We are unable to say at this time to what extent the differences are due to differential rural to urban migration rates.

Within Peninsula Malaysia there was, in 1970, considerable variation in age composition as between urban and rural areas. That is shown in dependency ratios in Table 3.14. In general, the ratios are much lower in urban areas as a result no doubt, of age selectivity and lower urban fertility rates. But among the urban populations of the several states there is a 20 point spread in the ratios. The most urbanized states had the lowest urban ratios, notably Selangor and Penang. Rural dependency ratios arrange 20 points or more above urban ratios, though again there was great variation among states. Some of the states with very high rural ratios had comparatively low urban ratios, as for example Johore, Malacca and Negri Sembilan. It should be borne in mind that the dependency ratio is a rather arbitrary measure of dependency. We shall return to this point in a later connection. Here we have used the ratio simply as a summary measure of age composition.

TABLE 3.1 – NET INTER-STATE MIGRATION FROM STATE OF BIRTH AND PER CENT NET MIGRATION, PENINSULA MALAYSIA, 1957 AND 1970

State	1957		1970	
	Number	Per Cent of State Population	Number	Per Cent of State Population
Johor	+ 15,446	+ 1.7	- 4,984	- 0.4
Kedah	+ 6,052	+ 0.9	- 25,357	- 2.7
Kelantan	- 17,109	- 3.4	- 47,828	- 7.0
Malacca	- 25,209	- 8.6	- 40,325	- 10.0
Negri Sembilan	+ 2,887	+ 0.8	- 21,600	- 4.5
Pahang	+ 17,979	+ 5.7	+ 65,798	+ 13.1
Penang	- 30,841	- 5.4	- 20,087	- 2.6
Perak	- 31,406	- 2.6	- 114,312	- 7.3
Perlis	+ 4,103	+ 4.5	+ 3,076	+ 2.5
Selangor	+ 55,430	+ 5.5	+ 199,671	+ 12.3
Trengganu	+ 2,668	+ 1.0	+ 5,948	+ 1.5

TABLE 3.2 – INTER-STATE MIGRANTS, PENINSULA MALAYSIA, 1970

State	In-Migrants	Out-Migrants	All Migrants	Net Migrants	Ratio of Net to All Migrants
Johor	62,094	70,191	132,285	- 8,097	6.12
Kedah	59,820	81,487	141,307	-21,667	15.33
Kelantan	20,591	53,355	73,946	-32,764	34.95
Malacca	40,992	52,753	93,745	-11,761	12.54
Negri Sembilan	58,529	71,011	129,540	-12,482	9.64
Pahang	88,986	40,664	129,850	+48,322	37.21
Penang	76,529	73,791	150,320	+ 2,738	1.82
Perak	93,294	162,934	256,228	-69,640	27.18
Perlis	14,531	13,317	27,848	+ 1,214	4.36
Selangor	198,289	100,089	298,378	+98,200	32.91
Trengganu	32,571	26,634	59,205	5,937	10.03
Total	746,226	746,226	-	-	-

TABLE 3.3 – PER CENT DISTRIBUTION OF POPULATION BY MIGRANT STATUS AND STATE, PENINSULA MALAYSIA, 1970

State	1970 Population	Non-Migrants	Migrants	Inter-Locality Migrants	Inter-Locality, Intra-State Migrants	Inter-State Migrants	Foreign Migration
Johor	100.0	61.8	38.2	3.4	17.2	6.4	11.2
Kedah	100.0	64.3	35.7	3.3	19.0	8.2	5.2
Kelantan	100.0	76.8	23.2	0.5	17.6	2.9	2.2
Malacca	100.0	69.8	30.2	1.8	8.1	11.8	8.5
Negri Sembilan	100.0	56.1	43.9	6.5	10.5	15.6	11.3
Pahang	100.0	52.8	47.2	5.8	12.2	21.1	8.1
Penang	100.0	64.6	35.4	2.1	10.7	11.8	10.8
Perak	100.0	63.4	36.6	3.0	17.9	6.8	9.0
Perlis	100.0	62.9	37.1	2.2	17.2	13.5	4.2
Selangor	100.0	49.0	51.0	8.2	12.5	18.1	12.2
Trengganu	100.0	70.7	29.3	1.5	16.4	9.1	2.3
Total	100.0	61.4	38.6	4.0	14.9	10.9	8.8

TABLE 3.4 – POPULATION OF STATES WITH AND WITHOUT INTER-STATE MIGRATION, PENINSULA MALAYSIA, 1970

State	Number		Per Cent		Percentage Point Difference
	1970 Census Population	1970 Population Assuming No Migration	1970 Census Population	1970 Population Assuming No Migration	
Johor	1,271,794	1,279,891	14.5	14.6	0.1
Kedah	952,421	974,088	10.8	11.1	0.3
Kelantan	684,312	717,076	7.8	8.2	0.4
Malacca	403,061	414,822	4.6	4.7	0.1
Negri Sembilan	480,053	492,539	5.5	5.6	0.1
Pahang	503,031	454,709	5.7	5.2	- 0.5
Penang	773,327	770,589	8.8	8.8	-
Perak	1,561,184	1,630,824	17.8	18.5	0.7
Perlis	120,996	119,782	1.4	1.4	-
Selangor	1,625,620	1,527,420	18.5	17.4	- 1.1
Trengganu	404,924	398,987	4.6	4.5	- 0.1
Total	8,780,723	8,780,723	100.0	100.0	-

TABLE 3.5 – PER CENT DISTRIBUTION OF NON-MIGRANTS AND MIGRANTS BY AGE AND COMMUNITY, PENINSULAR MALAYSIA, 1970

Age	Non-Migrants	Migrants				
		Total	Malay	Chinese	Indian	Other
5 - 9	18.5	15.4	16.5	12.8	16.6	13.8
10 - 14	16.6	12.0	12.5	10.5	14.0	8.8
15 - 19	12.5	15.1	15.7	14.8	13.7	8.4
20 - 24	8.4	17.3	17.5	18.0	14.4	19.5
25 - 29	6.5	11.3	11.2	12.8	8.5	15.5
30 - 34	6.8	8.8	8.7	9.2	7.7	11.1
35 - 39	5.6	5.6	5.5	5.5	6.1	7.4
40 - 44	6.7	4.1	4.2	3.6	4.7	5.4
45 - 49	4.4	2.9	2.8	2.5	4.0	3.8
50 - 54	3.9	2.3	1.9	2.5	3.4	2.2
55 - 59	3.2	1.9	1.3	2.6	2.9	1.6
60 - 64	2.8	1.5	1.0	2.2	2.0	1.1
65 +	4.1	1.8	1.2	3.0	2.0	1.4
Total	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3.6 – NUMBER AND PER CENT OF URBAN POPULATION, PENINSULA MALAYSIA, 1911 TO 1970

State	Census Year					
	1911	1921	1931	1947	1957	1970
Johor	-	28,639	55,130	113,514	202,875	335,975
Kedah	-	11,596	18,568	45,599	93,436	120,724
Kelantan	12,548	10,833	14,843	22,765	49,351	103,262
Malacca	21,191	30,671	38,042	54,507	69,848	101,537
Negri Sembilan	-	17,272	21,543	35,274	64,115	103,729
Pahang	-	-	-	-	57,242	95,782
Penang	101,182	123,069	162,948	236,146	324,439	394,996
Perak	37,538	71,385	113,226	162,809	305,440	431,807
Perlis	-	-	-	-	-	-
Selangor	46,718	92,079	132,331	220,767	435,163	733,872
Trengganu	14,013	12,456	13,972	27,004	41,961	109,469
Peninsula Malaysia	233,190	398,000	570,603	918,385	1,643,870	2,531,153
Per Cent of State Population						
Johor	-	10.1	10.9	15.4	21.8	26.3
Kedah	-	3.4	4.3	8.2	13.3	12.6
Kelantan	4.4	3.5	4.1	5.1	9.8	15.1
Malacca	17.0	20.0	20.4	22.8	24.0	25.1
Negri Sembilan	-	9.7	9.2	13.2	17.8	21.6
Pahang	-	-	-	-	18.3	19.0
Penang	37.3	41.8	47.7	52.9	56.7	50.9
Perak	11.0	13.3	14.4	17.1	25.0	27.5
Perlis	-	-	-	-	-	-
Selangor	15.9	23.0	24.8	32.7	43.0	45.1
Trengganu	9.1	8.1	7.8	11.9	15.1	27.0
Peninsula Malaysia	10.7	14.0	15.1	18.9	26.2	28.8

TABLE 3.7 – PER CENT INTER-CENSAL CHANGE OF URBAN POPULATION, PENINSULA MALAYSIA, 1921–1970

State	Per Cent Change				
	1911–1921	1921–1931	1931–1947	1947–1957	1957–1970
Johor	-	92.5	105.9	78.7	65.6
Kedah	-	60.1	145.6	104.9	29.2
Kelantan	- 13.7	37.0	53.4	116.8	109.3
Malacca	44.7	24.0	43.3	28.1	45.4
Negri Sembilan	-	24.7	63.7	81.8	61.8
Pahang	-	-	-	-	67.3
Penang	21.6	32.4	44.9	37.4	21.7
Perak	91.5	58.6	43.8	87.6	41.4
Perlis	-	-	-	-	-
Selangor	97.9	43.7	66.8	97.1	68.6
Trengganu	- 11.1	12.2	93.3	55.4	160.9
All Urban	70.7	43.4	60.9	79.0	54.0
Total Population	24.3	30.3	29.6	28.3	40.3

State	Per Cent Distribution					
	1911	1921	1931	1947	1957	1970
Johor	-	7.2	9.7	12.4	12.3	13.3
Kedah	-	2.9	3.2	5.0	5.7	4.8
Kelantan	5.4	2.7	2.6	2.5	3.0	4.1
Malacca	9.1	7.7	6.7	5.9	4.2	4.0
Negri Sembilan	-	4.3	3.8	3.8	3.9	4.1
Pahang	-	-	-	-	3.5	3.8
Penang	43.4	31.0	28.6	25.8	19.7	15.6
Perak	16.1	17.9	19.8	17.7	18.6	17.1
Perlis	-	-	-	-	-	-
Selangor	20.0	23.2	23.2	24.0	26.5	28.9
Trengganu	6.0	3.1	2.4	2.9	2.6	4.3
All Urban	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3.8 – URBAN POPULATION CHANGE BY CONSTANT AREA AND SIZE CLASS, PENINSULA MALAYSIA, 1947–1970

Size of Place	Beginning of Intercensal Interval	End of Intercensal Interval	Amount of Change	Per Cent Change
	1947–1957			
75,000 and over	445,923	676,903	230,980	51.80
50,000 - 75,000	54,507	68,848	14,341	26.31
25,000 - 50,000	267,129	411,556	144,427	54.07
10,000 - 25,000	150,826	197,013	47,000	31.16
All Urban	918,385	1,331,404	413,019	44.97
Non-Urban	3,989,701	4,947,354	957,653	24.00
Total	4,908,086	6,278,758	1,370,672	27.92
	1957–1970			
75,000 and over	752,552	1,082,633	330,081	43.86
50,000 - 75,000	249,764	370,570	120,806	48.36
25,000 - 50,000	304,802	426,581	121,759	39.94
10,000 - 25,000	336,733	462,176	125,443	37.25
All Urban	1,643,870	2,341,960	698,090	42.47
Non-Urban	4,634,888	6,467,815	1,832,927	39.54
Total	6,278,758	8,809,775	2,531,017	40.31

TABLE 3.9 – URBAN POPULATION CHANGE BY CONSTANT DEFINITION AND SIZE CLASS, PNEINSULA MALAYSIA, 1947–1970

Size Class	Beginning of Intercensal Interval	End of Intercensal Interval	Amount of Change	Per Cent Change
	1947–1957			
75,000 and over	445,923	725,552	279,629	62.71
50,000 - 75,000	54,507	248,763	194,256	356.39
25,000 - 50,000	267,129	304,759	- 37,630	14.08
10,000 - 25,000	150,826	94,550	- 52,276	- 37.31
All Urban	918,385	1,373,624	455,239	49.57
Non-Urban	3,989,701	4,905,134	915,433	22.94
Total	4,908,086	6,278,758	1,370,672	27.93
	1957–1970			
75,000 and over	752,552	1,480,390	727,838	96.72
50,000 - 75,000	249,763	405,045	155,281	62.17
25,000 - 50,000	304,822	273,319	- 31,503	- 10.33
10,000 - 25,000	336,733	372,399	35,666	10.59
All Urban	1,643,870	2,531,153	887,283	53.98
Non-Urban	4,634,888	6,278,622	1,643,734	35.46
Total	6,278,758	8,809,775	2,531,017	40.31

TABLE 3.10 – COMPONENTS OF URBAN POPULATION, PENINSULA MALAYSIA, 1947–57 AND 1957–70

State	1947 – 1957					1957 – 1970				
	Actual Urban Population Increase	Distribution of Increase				Actual Urban Population Increase	Distribution of Increase			
		Total	Natural Increase	Migration	Reclassification		Total	Natural Increase	Migration	Reclassification
Johor	89,361	100.0	44.4	35.0	20.6	133,100	100.0	52.2	29.6	18.2
Kedah	47,837	100.0	26.3	36.9	36.8	27,288	100.0	115.0	- 15.0	-
Kelantan	26,586	100.0	23.6	34.1	42.3	53,911	100.0	31.3	6.1	62.6
Malacca	15,341	100.0	97.9	2.1	-	31,689	100.0	72.1	- 17.5	45.4
Negri Sembilan	28,841	100.0	33.7	24.6	41.7	39,614	100.0	52.9	21.0	26.1
Pahang	57,242	100.0	-	-	100.0	38,540	100.0	48.6	22.1	29.3
Penang	88,293	100.0	73.7	26.3	-	70,557	100.0	150.4	- 67.8	17.4
Perak	142,631	100.0	31.4	19.6	49.0	126,367	100.0	79.0	12.5	8.5
Perlis	-	-	-	-	-	-	-	-	-	-
Selangor	214,396	100.0	28.4	51.4	20.2	298,709	100.0	47.7	41.0	11.3
Trengganu	14,957	100.0	48.0	- 31.7	83.7	67,508	100.0	20.3	22.5	57.2
Total	725,485	100.0	34.9	31.7	33.4	887,283	100.0	60.6	18.1	21.3

TABLE 3.11 – PER CENT DISTRIBUTION OF URBAN POPULATION, BY COMMUNITY AND STATE, PENINSULA MALAYSIA, 1947, 1957, 1970*

State	Malay			Chinese			Indian		
	1947	1957	1970	1947	1957	1970	1947	1957	1970
Johor	31.5	29.9	36.9	56.8	57.4	54.7	9.1	7.9	7.0
Kedah	32.9	32.2	35.9	50.7	53.3	55,6	15.4	12.6	8.0
Kelantan	63.8	73.0	79.1	30.1	23.3	18.4	4.3	2.5	1.9
Malacca	13.6	13.4	17.3	74.7	76.1	72.6	7.7	7.0	7.1
Negri Sembilan	9.8	13.8	22.3	65.2	65.6	57.5	17.8	14.1	19.1
Pahang	-	22.3	27.6	-	67.7	62.7	-	7.7	9.3
Penang	12.7	12.7	15.4	71.0	71.0	69.9	14.4	14.3	13.2
Perak	11.3	14.8	16.2	68.2	66.4	67.5	17.7	15.4	15.9
Perlis	-	-	-	-	-	-	-	-	-
Selangor	13.0	14.3	21.9	62.5	64.3	59.7	19.2	16.1	16.9
Trengganu	81.8	76.9	85.9	15.7	19.7	12.8	2.0	2.5	1.2
Total	19.0	21.0	27.7	63.1	62.6	58.6	14.7	12.8	12.6

* Figures for census years do not add to 100 because of omission of "Other" category.

TABLE 3.12 – PER CENT DISTRIBUTIONS OF COMMUNITIES, BY SIZE OF PLACE, PENINSULA MALAYSIA, 1957 AND 1970

Size of Place	Malay		Chinese		Indian		Total	
	1957	1970	1957	1970	1957	1970	1957	1970
100,000 +	3.0	5.9	19.3	23.6	14.6	20.5	10.8	13.8
75,000 - 100,000	0.4	1.1	2.0	5.5	2.1	3.7	1.2	3.0
50,000 - 75,000	2.1	3.7	6.3	6.3	3.8	3.6	4.0	4.6
25,000 - 50,000	3.3	1.2	6.9	5.9	4.7	3.3	4.9	3.1
10,000 - 25,000	2.4	3.1	10.2	6.1	5.5	3.6	5.7	4.2
1,000 - 10,000	8.1	6.6	28.8	24.2	10.6	10.1	16.1	13.3
Under 1,000	80.7	78.4	26.5	28.4	58.7	55.2	57.3	58.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3.13 – PER CENT DISTRIBUTIONS OF URBAN AND RURAL POPULATION, BY AGE, PENINSULA MALAYSIA AND SABAH AND SARAWAK, 1970

Age	Peninsula Malaysia		Sabah and Sarawak	
	Urban	Rural	Urban	Rural
0 - 15	40.2	46.3	40.5	48.5
15 - 64	56.6	50.5	57.2	49.5
65 and over	3.2	3.2	2.3	2.0
Total	100.0	100.0	100.0	100.0

TABLE 3.14 – AGE DEPENDENCY RATIOS, BY STATE, PENINSULA MALAYSIA, 1970

State	Total	Urban	Rural
Johor	100.4	82.4	107.8
Kedah	89.5	76.5	91.5
Kelantan	91.4	83.4	92.8
Malacca	99.9	81.2	107.1
Negri Sembilan	101.1	81.9	107.2
Pahang	94.2	85.7	96.3
Penang	80.5	71.2	93.5
Perak	93.3	82.5	99.1
Perlis	80.4	-	80.4
Selangor	84.1	70.3	97.3
Trengganu	95.0	91.9	96.2
Total	91.4	76.6	98.1

CHAPTER IV

THE LABOUR FORCE

In an economy in transition from traditional to modern organization there is bound to be some ambivalance over a proper definition of the labour force. Children in the traditional sector commonly enter the labour force at ages which in the modern sector are regarded as school attendance ages while old people observe no particular retirement age. Accordingly in Malaysia one frequently finds two labour force age definitions employed, 10 years of age and over, and 15 to 64 years of age. Because the first was used in the census the more conventional 15 to 64 years definition can be recognized only when an age control can be applied. In this, as in other aspects of the population, the data for Peninsula Malaysia and for Sabah and Sarawak are not entirely comparable, nor are they uniformly completed. Hence, most of the discussion will concern Peninsula Malaysia.

Participation Rates

Age-sex specific labour force participation rates are shown separately for Total Malaysia and for Peninsula Malaysia in Table 4.1. The rates are interesting mainly for the differentials they reveal. It is to be noted that participation rates are somewhat higher for Total Malaysia than for the more populous Peninsula Malaysia. Most of that difference appears to be due to the tendency for women in Sabah and Sarawak to enter the labour force at earlier ages and to remain active longer than do women elsewhere in Malaysia.

Participation rates computed on each of the two definitions appear in the two bottom rows of Table 4.1. The effects on rates produced by a definitional difference, which are of the order of 20 per cent, are traceable mainly to the very low rates for persons under 15 years of age. The 15 to 64 years definition excludes approximately 6 per cent of the active labour force. But the excluded portion comprises a larger part of the unemployed and quite possibly a substantial portion of the under-employed workers.

Inter-censal survey data shows that labour force participation in the 10-15 year age group has declined since the early 1960's. This is in accord with what is known about increases in school attendance rates and with a shifting of the work force away from agriculture and to urban industries. There appears also to have been a decline in female labour force participation. If so, there are probably two countervaling trends at work. The decline of labour intensive agriculture involves a reduction of female employment as unpaid family workers. On the other hand, a growth of urban industries brings more females into the urban labour force. though not yet in sufficient numbers to compensate for rural declines. There seems also to have been a reduction in the participation rates of older workers.

An examination of community group differences in age-sex specific rates is afforded in Table 4.2 for Peninsula Malaysia only. It may be observed that Chinese enter the labour force earlier than do members of the other communities, but that Malay workers remain longer in the labour force. The relatively slow entrance of Indian males into active participation may be due to statistical errors, for they are not known to remain in school longer than males of other communities. It is of interest to note that ages of highest participation rates for females vary considerably between the community groups. The peak among Chinese women occurs at 20-24 years, among Indian women at ages 35-39 years, and at 45-49 years among Malay women. Quite possibly these reflect differences in marriage and family patterns.

Employment Status

The Malaysian work force includes comparatively few employers. Over 90 per cent are comprised of wage and salary employees, self-employed, and unpaid family workers. As may be seen in Table 4.3, two-thirds of the urban work force are employees who work for monetary income. But the dominant component in rural areas is made up of the self-employed and unpaid family workers. Together, these two groups constitute the domestic industry, that is, agriculture. The probability that unpaid family employment absorbs a large part of the new entrants into the rural labour force is suggested by the fairly small proportions who were looking for their first jobs. It is likely, too, that the unpaid family workers category conceals a great deal of under-employment.

In only the rural Malay population does the employer category include less than a majority of the labour force. And among rural Malays, the self-employed are the largest group among males, while unpaid family workers are the largest group among females. No doubt the two complement one another to constitute farm enterprises. Unpaid family workers are also fairly numerous in the Chinese population in urban as well as rural areas. The large proportions of urban workers especially females, who were looking for their first jobs are noteworthy. This category of labour force participation accounts for approximately two-thirds of the unemployed.

Unfortunately, changes in definitions and in classificatory procedures as between the 1957 and 1970 censuses make a reliable comparison of employment status compositions impossible. We believe that the employee class has increased at the expense of the self-employed class. There is some evidence, mainly inter-censal surveys, to indicate that the proportion in the 'unpaid family workers' category may have increased slightly since 1962. It would be useful to know more about that category, for it is a likely employment category for the absorption of excess population growth.

Industrial Structure

The industrial composition of the Peninsula Malaysian labour force, in 1970, was dominated by agriculture. More than half of the experienced labour force (52 per cent) were so employed. And nearly half of the workers in agriculture were active in producing crops for industrial uses, particularly rubber and palm oil. Manufacturing occupied less than 10 per cent of the labour force, while slightly over 30 per cent were engaged in commerce, transportation and communication, and services.

The industrial composition of the entire labour force (as distinct from the experienced labour force) in different classes of places is shown in Table 4.4. Variations by size of place are consistant in one direction or another in virtually every class of industry; the larger the place the fewer the agricultural and mining

workers and the more numerous are workers in all non-extractive industries. The proportion of agricultural workers in gazetted places drops sharply as between places of less than 10,000 population, where it is 40 per cent, and places above that size, where it is 14.5 per cent and less. The small gazetted places retain a large rural component in their industrial structures. In the rural areas, on the other hand, almost one-third of the labour force is engaged in non-extractive industries.

The concentration of Malays in rural industries and their under representation in urban industries is evident in Table 4.5. Chinese are under-represented in agriculture; they are, as they have been historically in Malaysia, engaged primarily in urban industries. One notable exception is their numerical dominance in mining and quarrying industries.

The Indian labourforce was concentrated in four industries: utilities, agriculture requiring substantial processing of products, transportation and communication, and services. As noted previously, the industrial distribution of the community groups is reflected in their territorial distribution.

Between 1957 and 1970 *important sectoral shifts of employment* occurred. The proportion of the experienced labour force engaged in agriculture declined from 59 to 52 per cent. Within agriculture,a substantial shift occurred from the production of food crops to the cultivation of industrial crops; two-thirds of the modest inter-censal increase in agricultural employment (9.19 per cent) went to the production of industrial products. Employment in non-agricultural industries increased by more than four times the agricultural rate (42.78 per cent). All segments of the non-agricultural sector but one, the exception being mining and quarrying, increased their shares of the labour force. Most of the loss from agriculture was taken up by manufacturing and service industries. In point of fact, these sectoral shifts were continuations of trends that have been at work since 1931[1].

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1 See Charles Hirschman, "Employment by Industry in West Malaysia, 1931–1967" Unpublished paper, April, 1971.

The inter-sectoral shifts within the community groups and sexes are shown in Table 4.6[2]. All community groups participated in the movement away from agriculture and in every community group the movement affected females to a much greater extent than males. Malays increased their involvement in all urban industries, but especially in manufacturing, construction and the services. The Chinese whose departure from the agricultural sector has been more pronounced than that of the other community groups, have turned mainly to employment in manufacturing, commerce and services. The major shift among Indians has been to the service industries, though they, too, have spread into most urban activities. For Indian women the principal employment remained in "agriculture requiring substantial processing of products", despite a very appreciable decline since 1957. Women of all the community groups have found the largest expansion of opportunity for their employment in the service industries.

Occupational Structure

As might be summarised from the industrial composition of the labour force, the occupational structure of Peninsula Malaysia is heavily weighted with manual or blue-collar occupations. As Table 4.7 shows, almost three-quarters of the workers are engaged in such occupations with a range of less than two-thirds among the Chinese to nearly four-fifths among Malays. The very small proportions in administrative and managerial occupations is contrary to what one would expect of an economy in which small enterprises predominate. The figures result from the occupational classification used; government executive officials are classified as clerical workers, managers of wholesale and retail trade are grouped with sales workers, etc. If all were combined in the administrative and managerial category, the proportion there would be almost three times greater. The inclusion of working proprietors would raise the proportion still higher. Table 4.8 also reveals that clerical and sales occupations are staffed by males primarily, while the sexes are almost equally represented in the professions. The latter is somewhat illusory, however, for females constitute a small minority in every professional occupation but one – 'medical, dental, veterinary and related workers', in other words, nurses. The relatively large proportions of females with occupations inadequately described and not stated probably reflects some ambiguity concerning their roles in the labour force.

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2 It is noteworthy that the correlation of labour force participation rates with proportions engaged in non-extractive industries, with the 70 districts of Peninsula Malaysia as units, is - 2,179.

In Table 4.8 is shown the occupational structure of different sizes and types of places. As an indicator of degree of urbanization, occupational structure seems to be unequivocal; the proportions in most of the non-agricultural occupations rises steeply with increases in size of place. One exception is the proportion employed in sales work. Cities of 10,000 to 75,000 population seem to be as important marketing centers as are cities of 75,000 population and over. The middle-sized cities also have larger proportions than expected in administration and managerial occupations, but this may be an artifact of the classification.

Unfortunately, the 1957 and 1970 censuses employed occupational classifications so different that comparability was lost. Hence, no clear evidence of trends can be extracted from the data.

Labour Force Replacement

A rapid growth of population such as Malaysia has been experiencing, soon produces progressively larger cohorts maturing to labourforce ages. Whether the new entrants to labour force ages can be absorbed into the labour force is a question of major economic and social importance. A work life expectancy table prepared in the Department of Statistics permits a measurement of the numbers of accessions to and of attritions in the labour force. It should be emphasized that data in Table 4.9 in which these replacements are presented, are based on rates operating in 1970. The results can be projected into the future only on the unlikely assumption that nothing changes.

According to Table 4.10, given the participation rates of 1970 there were 476,390, new entrants into the labour force and an attrition from deaths and retirements of 192,432 workers. The excess of accessions over attritions amounted to 283,958, or an addition of 2.48 job applicants for every vacancy created. The entrance of new male workers to both urban and rural labour forces is virtually completed by age 25 years. Attritions reach their peak between 50 and 55 years of age, due largely to the concentration of retirements in that age group. Thereafter attritions subside even though mortality continues to rise. Among urban females entrance

into the urban labour force ceases after age 20 years, though it is resumed briefly after 40 years of age. Attritions peak abruptly in the ages 20-24 years, due presumably to women leaving the labour force for marriage. The entrance of women into the rural labour force continues until around age 45. There again is a peak in attritions at the 20-24 years age group, followed by a sharp decline in the 25-29 age group, and then attritions follow an erratic upward course to ages 50-54 after which it subsides once again. Rural Malay women show no disposition to retire from the labour force until after age 45, rural Indian women begin to retire 10 years earlier, and Chinese begin their retirement from the rural labour force after age 25. No difference in age of beginning retirement is seen for women in the urban labour force.

The ratios of accessions to attritions are shown for the different segments of the population in Table 4.10. In general, the ratios were lowest for urban females and highest for rural males. For every urban female leaving the labour force through death or retirement 1.8 new job seekers entered the labour force, and for every rural male departure there were three new entrants into the rural labour force, competition for economic opportunity was acute for both Malay and Chinese males whether in urban or rural areas. The low replacement rates for Indian and Other males was probably due to the relatively high mortality among Indian males. No doubt competition among females will grow more severe as they seek to enter the labour force in large numbers.

TABLE 4.1 – PER CENT OF POPULATION ACTIVELY IN THE LABOUR FORCE BY AGE AND SEX, MALAYSIA AND PENINSULA MALAYSIA, 1970

Age	All Malaysia			Peninsula Malaysia		
	Male	Female	Total	Male	Female	Total
10 - 14	9.8	9.1	9.4	9.0	7.7	8.4
15 - 19	53.0	34.6	43.7	53.2	33.0	40.3
20 - 24	87.3	43.1	64.8	87.1	41.9	64.1
25 - 29	93.4	40.0	66.5	93.5	38.4	65.7
30 - 34	94.1	40.5	67.2	94.4	39.0	66.5
35 - 39	93.9	41.8	67.3	94.0	40.0	66.4
40 - 44	92.9	41.9	67.6	93.2	40.0	66.6
45 - 49	91.3	42.5	66.7	91.5	40.7	65.7
50 - 54	86.9	38.4	63.2	86.7	36.6	62.0
55 - 59	76.6	30.9	55.1	75.6	29.2	53.5
60 - 64	66.4	28.1	48.1	65.2	23.7	45.3
65 +	46.9	13.9	30.1	46.0	12.9	30.0
10 and above	66.3	32.3	49.4	64.8	30.1	47.4
15 - 64	81.6	38.9	60.2	81.3	37.2	56.8

TABLE 4.2 – PER CENT OF POPULATION IN LABOUR FORCE BY AGE AND SEX, PENINSULA MALAYSIA, 1970

Age	Total		Malay		Chinese		Indian	
	Male	Female	Male	Female	Male	Female	Male	Female
10 - 14	9.0	7.7	9.1	7.2	9.3	8.7	7.5	7.5
15 - 19	52.3	33.0	53.0	28.8	53.6	39.9	48.5	30.6
20 - 24	87.1	41.7	86.0	35.8	88.9	51.2	86.8	39.8
25 - 29	93.5	38.8	92.4	37.3	94.9	39.4	94.1	40.3
30 - 34	94.3	39.7	93.3	39.9	95.5	36.1	95.9	45.3
35 - 39	94.1	39.8	93.4	42.3	95.1	34.2	95.6	47.2
40 - 44	93.1	40.5	92.5	44.7	94.0	31.4	94.3	42.0
45 - 49	91.4	40.7	91.0	47.0	92.3	29.0	92.4	41.6
50 - 54	86.5	36.6	87.5	44.0	85.7	26.1	86.1	32.9
55 - 59	75.4	29.2	79.1	38.4	75.7	21.2	64.3	18.4
60 - 64	65.0	23.7	71.7	30.9	63.3	16.7	47.4	10.5
65 +	46.0	12.9	54.2	18.3	40.7	8.3	30.1	5.5
10 and above	65.8	30.6	66.2	31.1	65.3	29.9	63.9	30.3
15 - 64	81.0	37.2	73.1	37.6	81.7	36.5	79.4	36.2

TABLE 4.3 – PER CENT DISTRIBUTION OF LABOUR FORCE BY TYPE OF WORK EXPERIENCE, BY PLACE OF RESIDENCE, COMMUNITY AND SEX, PENINSULA MALAYSIA, 1970

Work Experience	Total		Malay		Chinese		Indian	
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
Male								
Employer	5.3	4.2	3.5	3.6	6.3	5.5	4.8	4.9
Self-employed	18.1	36.3	15.5	43.7	20.0	28.8	16.0	10.3
Employee	67.0	44.1	71.9	36.6	63.8	50.2	70.3	74.8
Unpaid family worker	4.6	11.6	2.5	12.3	6.1	12.8	2.3	3.8
Looking for first job	5.0	3.8	6.6	3.8	3.8	2.7	6.6	6.2
Total in work force	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Female								
Employer	2.9	2.5	3.2	2.1	2.9	2.9	2.8	3.5
Self-employed	10.5	21.9	15.5	27.4	9.6	15.1	5.2	3.6
Employee	65.5	34.7	56.5	21.8	67.4	50.4	70.5	78.7
Unpaid family worker	10.5	36.5	11.7	44.7	11.1	27.0	4.5	7.2
Looking for first job	10.6	4.4	13.1	4.0	9.0	4.6	17.0	7.0
Total in work force	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 4.4 – PER CENT DISTRIBUTION OF LABOUR FORCE, BY INDUSTRY, AND BY SIZE AND TYPE OF PLACE, PENINSULA MALAYSIA, 1970

Industry	Size of Gazetted Place			Rural	Total
	75,000 and over	10,000–75,000	Under 10,000		
Agriculture	2.64	14.53	39.72	67.70	47.34
Mining & quarrying	1.09	1.19	2.52	2.18	1.92
Manufacturing	19.23	15.39	8.85	4.61	8.78
Construction	4.17	4.30	2.24	1.07	2.08
Electricity, gas & water	1.43	1.25	0.67	0.37	0.69
Commerce	20.01	17.41	12.89	4.64	9.56
Transportation, storage & communication	7.68	5.76	3.70	1.74	3.41
Services	32.50	28.95	20.28	8.61	16.46
Not stated*	11.66	11.23	9.12	9.08	9.74
Total in labour force	100.00	100.00	100.00	100.00	100.00

* Includes persons who were looking for first job.

TABLE 4.5 – PER CENT DISTRIBUTION OF THE EXPERIENCED LABOUR FORCE, BY COMMUNITY AND INDUSTRY, PENINSULA MALAYSIA, 1970

Industry	Malay	Chinese	Indian	Other	Total
Agriculture, forestry, hunting and fishing	81.0	16.5	1.0	1.5	100.0
Agriculture requiring substantial processing	57.1	25.8	16.8	0.3	100.0
Mining and quarrying	24.0	67.2	8.2	0.6	100.0
Manufacturing	29.0	65.3	5.3	0.4	100.0
Construction	21.7	72.1	6.0	0.2	100.0
Electricity, gas, water, etc.	48.1	18.2	32.2	1.5	100.0
Commerce	23.4	65.5	10.6	0.5	100.0
Transportation and communication	42.4	39.9	17.0	0.7	100.0
Services	47.4	36.7	14.0	1.9	100.0
Not stated and not adequately described	50.5	35.9	13.1	0.5	100.0
Total	52.4	36.0	10.7	0.9	100.0

TABLE 4.6 – INDUSTRIAL COMPOSITION OF THE EXPERIENCED LABOUR FORCE, BY COMMUNITY AND SEX, PENINSULA MALAYSIA, 1957 & 1970

Industry	1970								
	Malay			Chinese			Indian		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Agriculture, forestry, hunting and fishing	33.6	42.6	36.4	11.8	8.3	10.8	2.5	1.3	2.2
Agriculture requiring substantial processing	29.6	35.4	31.4	15.4	33.0	20.6	36.3	72.9	46.4
Mining and quarrying	1.4	0.1	1.0	4.7	2.3	4.0	2.2	0.3	1.7
Manufacturing	4.8	6.6	5.4	18.5	15.6	17.6	6.1	1.6	4.9
Construction	1.4	-	1.0	6.0	1.3	4.6	1.7	0.4	1.3
Electricity, gas, water, etc.	1.0	0.1	0.7	0.5	0.1	0.4	3.0	0.5	2.3
Commerce	5.1	3.8	4.7	22.7	11.2	19.2	13.9	2.1	10.7
Transportation and communication	4.3	0.3	3.0	5.6	0.7	4.2	8.2	0.8	6.1
Services	18.9	11.1	16.4	14.8	27.5	18.6	26.1	20.1	24.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1957									
Agriculture, forestry, hunting and fishing	43.4	54.9	46.0	14.2	11.3	13.5	1.8	0.7	1.5
Agriculture requiring substantial processing	27.5	32.7	29.0	21.6	47.7	27.9	43.9	88.9	55.7
Mining and quarrying	1.3	0.1	1.0	5.5	4.7	5.3	2.8	0.6	2.2
Manufacturing	2.4	3.6	2.7	14.9	7.3	13.0	4.4	0.2	3.3
Construction	2.9	-	2.2	5.1	2.0	4.3	4.8	1.8	4.0
Electricity, gas, water, etc.	0.5	-	0.4	0.5	0.1	0.4	1.8	0.2	1.4
Commerce	3.3	3.0	3.2	20.6	5.6	17.0	14.4	0.6	10.8
Transportation and communication	3.5	0.1	2.7	5.0	0.4	3.9	7.1	0.2	5.3
Services	15.2	5.6	12.8	12.6	20.9	14.7	19.0	6.8	15.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 4.7 – PER CENT DISTRIBUTION OF LABOUR FORCE BY OCCUPATION, COMMUNITY AND SEX, PENINSULA MALAYSIA, 1970

Occupation	Malay			Chinese			Indian			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total
Professional	4.0	3.8	3.9	4.3	6.1	4.9	5.1	5.6	5.3	4.3	4.9	4.5
Administrative and managerial	0.4	-	0.3	1.8	0.1	1.3	0.7	-	0.5	1.0	0.1	0.7
Clerical	3.8	1.9	3.2	6.0	6.5	6.2	7.8	2.9	6.4	5.1	3.7	4.6
Sales	3.8	3.1	3.6	18.5	7.9	15.2	10.8	1.3	8.1	9.9	4.6	8.2
Total white collar	12.0	8.8	11.0	30.6	20.6	27.6	24.4	9.8	20.3	20.3	13.3	18.0
Service	8.1	4.3	6.9	6.0	14.1	8.5	10.1	7.9	9.5	7.7	8.1	7.8
Agriculture	57.8	66.8	60.6	23.4	34.3	26.8	31.3	60.9	39.7	42.1	54.6	46.0
Production	15.1	6.4	12.3	33.9	17.7	28.8	24.5	5.8	19.1	22.9	10.3	18.9
Total blue collar	81.0	77.5	79.8	63.3	66.1	64.1	65.9	74.6	68.3	72.7	73.0	72.7
Inadequately described and not stated	7.0	13.7	9.2	6.1	13.3	8.3	9.7	15.6	11.4	7.0	13.7	9.3
Total labour force	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 4.8 – PER CENT DISTRIBUTION OF LABOUR FORCE BY OCCUPATION AND BY SIZE AND TYPE OF PLACE, PENINSULA MALAYSIA, 1970

Occupation	Size of Gazetted Place			Rural	Total
	75,000 and over	10,000–75,000	Under 10,000		
Professional	8.4	7.4	5.5	2.4	4.5
Administrative and managerial	1.1	1.5	0.7	0.3	0.7
Clerical	13.4	7.7	3.6	1.8	4.6
Sales	15.2	15.6	12.0	4.1	8.2
Total white collar	38.9	31.2	21.8	8.6	18.0
Service	16.8	12.9	9.4	4.0	7.8
Agricultural	2.6	13.4	38.6	66.0	46.0
Production	31.9	30.2	21.6	12.6	18.9
Total blue collar	51.3	56.5	69.6	82.6	72.7
Inadequately described and not stated	9.8	11.3	8.6	8.8	9.3
Total	100.0	100.0	100.0	100.0	100.0

TABLE 4.9 – LABOUR FORCE ACCESSIONS AND ATTRITIONS BY SEX AND TYPE OF PLACE, PENINSULA MALAYSIA, 1970

Age	Male				Female			
	Urban		Rural		Urban		Rural	
	Accessions	Attritions	Accessions	Attritions	Accessions	Attritions	Accessions	Attritions
10 - 14	60,279	38	166,257	227	37,485	27	92,322	155
15 - 19	34,626	441	45,051	1,410	12,700	190	13,943	718
20 - 24	1,693	978	1,389	1,949	-	13,026	3,694	6,111
25 - 29	40	956	80	1,615	-	5,905	4,120	873
30 - 34	7	1,313	-	2,955	-	2,199	2,377	1,259
35 - 39	-	1,926	-	4,120	-	1,684	1,267	2,848
40 - 44	-	3,023	-	5,723	2,343	996	717	2,352
45 - 49	-	5,231	-	9,130	-	1,007	-	7,319
50 - 54	-	9,475	-	14,761	-	1,901	-	9,061
55 - 59	-	7,849	-	14,677	-	1,295	-	7,544
60 - 64	-	6,107	-	14,210	-	904	-	6,908
Total	92,645	37,337	212,777	70,777	52,528	39,170	118,440	45,148

TABLE 4.10 – LABOUR FORCE REPLACEMENT RATES BY COMMUNITY, PLACE OF RESIDENCE AND SEX, PENINSULA MALAYSIA, 1970

Place of Residence and Sex	Malay	Chinese	Indian and Other	Total
Urban males	3.03	2.82	1.57	2.59
Urban females	2.22	1.63	2.23	1.80
Rural males	3.45	2.89	1.86	3.01
Rural females	2.81	2.44	2.30	2.62

CHAPTER V

SOME IMPLICATIONS OF PROJECTED FUTURE POPULATIONS OF PENINSULA MALAYSIA

The Trend 1970–1990

The future population of Peninsula Malaysia will be determined primarily by trends in natural increase, for it seems likely that external migration will no longer be a significant factor in population change. Trends in mortality and fertility are much more conjectural. It does not seem unreasonable, however, to expect very slight changes in mortality during the next two decades. With a life table death rate of 15.2 per 1,000[1], there is little room left for further decline. On the other hand, fertility rates are still relatively high despite some 13 years of decline. In 1970 the net reproduction rate – the rate at which women were replacing themselves with female children – was high enough (2.2235) to more than double the population within a generation. Thus, the present level of fertility, the history of fertility decline and the continuing modernization of the country together strongly suggest that further reductions are to be expected. How rapidly fertility might decline is uncertain of course. Between 1957 and 1970 the total fertility rate fell by more than 20 per cent. But whether that pace can be maintained as the rate becomes steadily lower is uncertain. Still a 30 per cent decline between 1970 and 1990 is highly probable. A minimum decline over the 20 years following 1970 might be of the order of 10 per cent. Another possibility is that the decline might lie midway in that range, that is, it might be approximately 20 per cent.

Thus, population projections are here made on four different sets of assumptions. All involve:-

No net external migration, and

Mortality constant, 1970–1990.

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1. This is the total death rate standardized on the age distribution of the stationary population.

They differ as follows:

Projection A
Fertility constant, 1970–1990

Projection B
Fertility decline,10%, 1970–1990

Projection C
Fertility decline,20%, 1970–1990

Projection D
Fertility decline,30%, 1970–1990

Of these, Projection A is least realistic. It is retained here for comparative purposes. The applications of the assumptions, of the assumptions concerning fertility change, differ among the four communities. For the Malays it is assumed that declines will be relatively slow between 1970 and 1980 and more rapid in the last decade of the period. In Projection B the decline is assumed to be 10% in the first decade and 15% in the second; in Projection C the changes are 20% and 25%, respectively; and in Projection D the changes are 30%, and 35%, respectively. For the Chinese, Projection B assumes a 12% linear decline over the 20 years. Projection C assumes a 15% decline to 1985 and none thereafter. And Projection D involves a 20% decline to 1980 and none thereafter. Linear declines of 10%, 22% and 33% in Projections B, C and D are applied to the Indian populations. No assumptions of fertility decline are applied to the Other group.

The effects of the fertility assumptions on the 1990 level of fertility are shown in Table 5.1. Total fertility (the sum of age specific rates) will subside on the most extreme assumptions from 4,000 and above to around 3,000 live births per 1,000 women, if all lived through the reproducing years. Similarly, the net reproduction rates[2] decline from levels that would more than double the population in a generation to levels, again on the assumption of most rapid decline, that require more than two generations for a doubling of the respective populations.

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2 The net reproduction rate measures the number of female babies born to the survivors of 1,000 females given the prevailing age-sex specific birth and death rates.

The results of applying the four sets of assumptions are shown in Table 5.2. There it may be seen that the number of inhabitants of Peninsula Malaysia might be expected to increase from slightly over 9 million in 1970 to 14 million or more. If Projection D is adopted as the most probable, in 1990 there will be approximately 8 million Malays, 4.5 million Chinese, 1.5 million Indians, and 105 thousand Others.

The rates of expected change obtained from the different projections are presented in Table 5.3. If mortality and fertility were to remain constant from 1970 to 1990 the population would grow by nearly 77 per cent, or at a rate of 2.8 per cent per year. The effect of a 30 per cent decline in fertility is to reduce the total growth rate to 53 per cent and the annual rate to around 2.1 per cent. Should there be some reduction in mortality during the period the rates of increase would be increased. Of the four communities the Malays can be expected to maintain the most rapid growth rates; their 1970 fertility was higher than that of any other community. The Chinese rate is lowest and the amount of change produced by varying the assumptions is greater in that community than for either the Malay or the Indian Communities. The Other community is so small and so subject to migration that its future is highly problematic. Perhaps it should be noted, however, that even though the Other group had a net reproduction rate of less than 1,000 in 1970, it will grow by 1.8 per cent per year during the two decades as a result of increasing numbers of women aging into the reproducing years. The growth rate will subside as those women are replaced by smaller cohorts.

Table 5.4 shows that if there were no changes in birth and death rates over the two decades the Malay proportion of the total population would rise from 52.7 per cent to 55.3 per cent. All other communities would become relatively smaller. Each larger decline in fertility would widen the difference in the proportions Malay and Chinese; while the Malay proportion might rise to a high of 56.7 per cent (Projection D), the Chinese proportion might fall to 32 per cent. Minor fluctuations in the proportions Indian would occur.

In Table 5.5, which presents per cent distributions of projected populations by age, it will be observed that the more rapid the assumed delcine of fertility the lower is the proportion to which persons in childhood ages may be expected to fall. By the same token, the proportion of population in labour force ages rises to its highest point where fertility decline is expected to be greatest. Populations grow older more rapidly, in other words, as the rate of fertility decline is increased. The aging process does not affect the population over 65 years of age very markedly within the period of the projection. Were that period longer the old-age category would soon begin to show substantial relative increases.

The data on which Table 5.5 is based can also be expressed as dependency ratios, that is, as ratios of the sum of population under 15 and over 65 years of age to the population 15–64 years of age. This is done in Table 5.6. Although the increases in the numbers of people in labour force ages will remain above 2.9 per cent per year (range 2.91 to 3.00) in all projections, the dependency ratios will decline, as may be seen in Table 5.6. The declines in Projection A, the high fertility projection, are due to large cohorts from past years of even higher fertility that will be aging into labour force ages without being replaced by equally large cohorts. Each larger rate of decline, in Projections B, C and D, produces a further shrinkage in the dependency ratio, for the replacement cohorts are made progressively smaller by the fertility assumptions adopted. Despite a large reduction in fertility, however, the Malay and Indian communities can be expected to carry rather large dependency burdens into the 1990's. The lower and more sharply declining fertility of the Chinese produce much lower dependency ratios for their community. It should be recognized that the dependency ratio is a crude figure, for not all people 15–64 years of age are actively in the labour force. With a participation rate of 60 to 63 per cent, the actual dependency ratio is approximately double the values, shown in Table 5.6.

Households

Changes in the number of households in a society have importance for the amount of social overhead capital that will be required in future years. Such changes can arise from two sources. One is increase in the size of the total population, the other is population increase combined with changing household size.

If the 1970 average household size of 5.63 persons were to remain constant, the number of private households would increase from the 1,630,848 of 1970 to somewhere between an estimated 2,884,432 based on Projection A and 2,507,371 based on Projection D. These amounts represent increases of between 76.8 and 53.7 per cent. It is very probable, however, that these estimates err on the conservative side. The declining birth rate is producing fewer children per married couple. There is also the trend toward an increasing proportion of the labour force in the non-extractive sector which tends to favour the nuclear household as against the extended household. The combined effect of these two trends might be expected to reduce the size of the household and to accelerate the increase in number of households. A limiting factor in that respect is the number of residential units available. If housing is in short supply, kinsmen and friends will tend to pool their resources thereby forming larger households than would otherwise occur. The following estimates of changing household size assume that the availability of dwelling units does not restrict changes in household size.

Unfortunately, changes in the application of the household definition as between the 1957 and 1970 censuses of Peninsula Malaysia prohibit any approximation of a trend for the inter-censal interval. An alternative is to use changes in certain ratios derivable from projected populations as indicative of how the 1970 household size might vary over the two decades following 1970. One such indicator is the ratio of children under 5 years of age to women 20 to 49 years of age. We shall call this Ratio 1. Another, which might be a better indicator of completed families, is the ratio of children under 15 years of age to women 30 to 44 years of age. This may be designated Ratio 2. The use of these ratios and the resulting estimates of changes in household sizes are shown in Table 5.7. With fertility and mortality constant an estimate based on Ratio 1 shows a decline from the 5.63 persons per household reported in the 1970 census to 4.95 in 1980 and then a slight rise to 5.06 by 1990. But estimates based on Ratio 2 indicate a continuous decline in household size to 4.72 persons in 1990. The declines in expected household size are steeper as the assumed amount of fertility reduction is increased. Should fertility rates fall by as much as 30 per cent between 1970 and 1990 the average household size could drop to as few as 3.23 or 3.48 persons. Of the two series, the one derived from Ratio 2 seems more reasonable, for it produces less extreme results. Accordingly, the following discussion refers to estimates obtained from that series alone.

It is suggested in Table 5.8 that even though fertility and mortality were to remain unchanged the number of households will increase by over 100 per cent by 1990. Should declines in fertility occur, as represented in the several projections, the increases in numbers of households will be substantially greater. Given the largest assumed fertility reduction the number of households will exceed 4 million by 1990, an increase of 164 per cent over the number in 1970.

Household Composition

Age distribution data in the population projections permit tentative estimates of changes in average household composition between 1970 and 1990. Table 5.9 presents estimates for only projections A and D. Since marital status data acquired in the 1970 census are not yet tabulated the number of married persons under 65 years of age in 1957 was used to obtain the number of 1.98 parents per household. This is assumed to remain unchanged. With no changes in vital rates the average number of children under 15 per household will decline from 2.50 in 1970 to 1.99 in 1990, a reduction of 20 per cent. Although the number of people over 65 in the population will increase by 33 per cent from 1970 to 1990,

the number per household will decline from 0.19 to 0.15. The latter figure makes more sense if it is translated to read the number of households that will contain an older person will change from 19 in every 100 to 15 in every 100. So far as the household is concerned, the old age burden, which has not been heavy in any case, will be lightened in the future. The greatest change that might be expected in Projection A concerns the reduction in the average numbers of older children and others in the household. That change amounts to a 38 per cent decline over the 20 years.

But, turning to Projection D in which a 30 per cent reduction in fertility is assumed, the number of children under 15 per household declines to 1.10 in 1990, or less than half the 1970 number. The number of old age household members falls less drastically, but still by 33 per cent. Again the largest declines to be expected will occur in the older children and other category; there may be 95 per cent fewer of those persons in each household in 1990 than there were in 1970.

In summary, it seems plausible that changes in household size and composition may lead to a need for smaller dwelling units or, alternatively, more space per person in dwelling units of constant size. The latter rather than the former could result, for the reduction of the number of dependents in the household might lead to a rise in per capita income. Of course, per capita income is contingent on number of workers per household. Were labour force participation rates to remain constant, the number of workers per household would fall from the 1.8 in 1970 to 1.6 in Projection A and 1.3 in Projection D. But while declining household size might occur at the expense, in part, of loss of secondary workers among ancillary numbers, the reduced number of children might permit the wife to spend more time in the active labour force.

Housing Supply

The growth in the number of households from 1,630,848 in 1970 to perhaps as many as 4,056,465 means an increase in dwelling units of 2,425,617, or 150 per cent, by 1990. To meet that possible demand would require an annual addition to the housing stock of 4.3 per cent. But the need might be even greater since 4 per cent of the 1970 dwelling units were classified by the census as dilapidated. Moreover, if the life expectancy of a dwelling unit may be assumed to be 30 years, some 9,000 will need to be replaced each year. Thus, the expected increases in households, the replacement of already dilapidated houses over the next 5 years,

and the annual replacement of superannuated housing mean that around 91,000 new dwelling units should be created each year during 1970–75, and the number would rise to around 134,000 per year by 1985–90, given Projection A. With Projection D the annual number of new dwelling units needed during 1985–90 would be 149,000. With the construction of public housing averaging around 13,000 per year in 1970–75, the private sector would need to produce 78,000 dwelling units to meet the estimated need. The private sector would have to increase its output to over 120,000 in 1985–90. But the changing demand for housing is measured only in the aggregate by increases in the number of household units. An equally important aspect of the demand concerns the changing pattern of the distribution of household units.

Urbanization

The projection of urban population trends can only be done in a very tentative way and then on an aggregate basis, unless of course fairly relaible knowledge about industrial growth trends and locations and related factors is available. Without such knowledge the demographer is left with two possibilities. He may, for example, project urban growth on the assumption that the rate of the preceding inter-censal interval will continue into the future. When that is done the results are as shown in Table 5.10.

Thus it may be seen that, given the assumption used in the tabulation, urban population might be expected to increase by 85 per cent by 1990. Its proportion of total projected populations would not be greatly changed, however. Under the most favourable conditions, that is, Projection D, the proportion of the population urban would rise to about 34.7 per cent. Conversely, the rural population might decline from 70 per cent of the total population to 65 per cent.

But the assumption of a continuation of the 1957–70 growth rate could lead to an under-estimation of future urban growth. The progressive industrialization and modernization of the country will undoubtedly result in some acceleration of urban population growth. For example, non-extractive industry employment, which recommends itself as one possible indicator of urbanization, increased by 4.4 per cent per year between 1957–70 and by 5.15 per cent per year from 1970 to 1973. This latter rate lags somewhat behind annual growth rates through the last half of the 1960–70 decade in domestic power consumption (6.3 per cent), telephones installed (6.2 per cent) and volume of mail handled

(5.2 per cent). Yet the rates are similar enough to warrant the use of any one as an indicator of future urban growth. Here we shall use the 1970–73 rate of growth in non-extractive employment (5.15 per cent) on the assumption that it will continue unchanged to 1990. If urban growth were to increase correspondingly, the results would be as shown in Table 5.11. Thus, urban population would increase from 2.54 millions to over 7.1 millions in 1990. Its proportion of the total population at the end of the period would lie somewhere between 44 and 51 per cent. On the other hand, the rural population would decline to 56 per cent or less than half of the total population. But with the rate of growth in non-extractive employment assumed here it is likely that the definition of urban as including only places of 10,000 population and over would be obsolete by 1990. That is, urbanization would probably have become more widely diffused than it was in 1970. That would produce an even greater decline in the rural proportion of the population.

Medical and Educational Services

Estimates of medical personnel needs as effected by different population projections are shown in Table 5.12. If the 1970 ratio of 33 physicians and dentists per 100,000 population were to be maintained, the numbers have to be increased from the 3,000 of 1970 to 5,359 in 1990 on the basis of Projection A or to 4,658 on the basis of Projection D. That, of course, holds the amount of available service constant. A projection of the 1957 to 1970 increase of physicians and dentists to 1990 would bring the number to 8,193. The ratio would thus be raised from 33 to 54 per 100,000. Whether the current output of 250 new practitioners per year is sufficient to significantly improve the amount of available medical service cannot be determined without information on the attrition rate among medical personnel.

In 1970 there were 54 nurses per 100,000 people. A maintenance of that ratio over the two decades to 1990 means that 3,787 more nurses will have to be trained given Projection A, or 2,640, given Projection D. But, again, these numbers allow for no improvement in the amount of service available. The 1957–1970 ratio of increase, should it continue, would raise the ratio of nurses to population from 54 to 176 per 100,000. That would require training an additional 23,600 nurses over the next 20 years. The present nursing training capability is unable to accommodate that amount of increase. The current rate at which nurses are completing their training – 1,800 per year, would come close to sustaining the 1957–1970 increase, were there no attrition. Government plans to further expand nurse training facilities may more than compensate for losses from deaths and retirements.

Population trends will also require, if the present level of service is to be maintained, an increase of hospital beds from the 27,927 in 1970 to something over 40,000 in 1990, a 51 per cent increase. But 3 beds per 1,000 population may not be enough to serve the need. If the 1970–73 increase of beds in government supported hospitals (2.24 per cent per year) is indicative of the increase in all hospitals the result will for bed increase to lag behind population growth on the A Projection and to exceed it slightly on the D Projection.

A growing need for the expansion of educational services is implicit in the composition of the population as of 1970 and as subsequently affected by vital rates. As may be seen in Table 5.13, if there are no changes in birth and death rates (Projection A) some 2,463,000 children would come of primary school age during 1970–75, or approximately 492,600 per year. By 1985–90 that number will have increased to 4,190,400, or 838,000 per year. Fertility reductions during the 1970–90 period will bring relief to the nation's educational costs. Should the birth rate decline by 30 per cent (Projection D) the 20-year increment to the beginning school age will subside from the 70 per cent of Projection A to 19 per cent.

The effects of different rates of population change on primary school enrolment are shown in Table 5.15. The proportion of the population 6 to 12 years of age enrolled in primary schools of all types in 1970 was 88.4 per cent. Applying that percentage to the numbers 6 to 12 years of age expected in the four projections, enrolment would increase from 1,429,000, in 1970, to 2,438,144 or 70.6 per cent, on the most conservative projection (A), or to 1,774,146, or 24 per cent on the most liberal projection (D). But if the proportion enrolled is allowed to increase by one-half percentage point per year, rising to 98.4 per cent by 1990, the increase according to Projection A would exceed 89 per cent and on Projection D it would amount to 38 per cent.

Corresponding increases in the numbers of teachers required in the primary schools, given the 1970 ratio of 3.2 teachers per 100 pupils as a constant, would result. These are shown in Table 5.15 for the enrolments as projected in Table 5.14. It is obvious that under any probable circumstance the numbers of teachers trained will have to be substantially increased. The annual rate of increase, with no change in proportions of enrolment, would have to be at least 1 per cent per year, and possibly as high as 2.6 per cent per year. With primary enrolment increasing at the rate of one percentage point per year teacher increase should be not less than 1.6 per cent per year and maybe as high as 3.1 per cent per year. The 1970–73 increase of enrolments in primary teaching training programs of 11.7 per cent per year promises to meet the need, though an accurate appraisal would require knowledge of the annual attrition rate.

The effects of different projections on the secondary school age population, the 12 to 18 year olds, cannot be manifested until after 1980, for all persons who will be entering those ages between 1970 and 1980 had been born by 1970. The numbers in that age category will increase through the 1970–80 decade though actual fertility declines have produced progressively smaller cohorts in the later years. Secondary school enrolment in 1970 was 38.7 per cent of the age eligible population. If that proportion were to remain constant, the numbers enrolled would be as shown in the top panel of Table 5.16. That is, the increase over the 20 years could amount to as much as 39.5 per cent (Projection A) or to as little as 22 per cent (Projection D). But if secondary school enrolment were increased at a rate of one percentage point per year, the increases could vary from 85 per cent (Projection D) to 112 per cent (Projection A). It is noteworthy that a 1 percentage point increase per year in secondary school enrolment would by 1990 remove about 320,000 persons from the possible new candidates for labour force participation.

The demand for teachers to provide instruction will grow with the growing secondary school enrolment. If the teacher-pupil ratio remains at 3.87 per 100, as it was in 1970, the number of teachers needed will rise from 19,775 to 27,576, or 39 per cent (Projection A) or to 24,083, or 22 per cent (Projection D). Needless to say, increases in the proportions enrolled will increase the demand for teachers. By 1990 the secondary school teachers needed may be somewhere between 36,500 and 41,800. These projections are shown in Table 5.17. Projected increases in the number of secondary school teachers required vary between 1 per cent and 1.6 per cent per year with no change in the enrolment ratio, and between 3 per cent and 3.6 per cent per year with a steadily expanding ratio of enrolment to secondary school-age population. In the light of the 19 per cent per year increase in enrolments in secondary teacher training programs during 1970–73 the projected needs would seem to pose no problem. But again the actual attrition rate would need to be known before a satisfactory assessment can be made.

Government Expenditures for Social Services

Government outlays for overhead and operating costs for civilian services – which include expenditures for justice and police, roads and waterways, fire, water and sanitation, education, health, and other community and social services, increased at a per annum rate of 6.68 per cent between 1965 and 1970. That is more than twice the rate of population growth in the same period. If the 1965–70 rate were to continue to 1990, social services expenditures in Peninsula Malaysia would amount to five times the 1970 figure, or 5,042 millions of dollars

per year. Whether the 1965–70 rate of increase could be expected to continue is a matter for speculation. If it is true that the major capital outlays lie in the past, future increases in costs might be more gradual than has been the case. To the extent, however, that there are areas of the country still poorly served with social amenities large capital expenditures will continue to be required. In areas that are now well equipped with facilities and organization there may be economies of scale which will bring about a reduction in the rate of increase. In short, there are several contingencies that call for a more searching analysis of future government expenditures for social services than can be attempted here.

For our purposes we can adopt a simple approach to projections of expenditures by assuming that the status quo as of 1970 will remain in effect through the years to 1990. That is, we may assume that the 1970 per capita costs of $109.31 and the 1970 per household costs of $615.42 will not change. It should be remembered that each reduction of fertility through the series of population projections estimates a smaller population but a larger number of households in 1990. Thus we find that on a per capita basis each reduction in fertility means a lower rate of increase in government expenditures, as may be seen in Table 5.18. But on a per household basis the rate of increase in government expenditures might be expected to increase as households grow smaller and more numerous.

Of the two bases of projecting costs the per household basis seems more reasonable, since social services in general are addressed to households as units rather than to individuals. And changes in the number of households are affected by influences other than population growth. Very little can be done about increases in the number of households short of reversing the modernization process. It seems very likely, therefore, that government outlays for social services will continue to rise fairly steeply unless, of course, there are significant economies of scale.

TABLE 5.1 – EXPECTED FERTILITY LEVELS IN 1970 AND IN 1990 BY COMMUNITY, PENINSULA MALAYSIA

Projection	Malay		Chinese		Indian		Other
	1970	1990	1970	1990	1970	1990	1970
Total Fertility							
A	5,050	5,050	4,340	4,340	4,635	4,635	1,730
B	5,050	4,565	4,340	3,835	4,635	4,195	-
C	5,050	3,790	4,340	3,495	4,635	3,675	-
D	5,050	3,285	4,340	2,755	4,635	3,110	-
Net Reproduction Rate							
A	2,305	2,305	2,057	2,057	2,118	2,118	813
B	2,305	1,941	2,057	1,807	2,118	1,917	-
C	2,305	1,724	2,057	1,638	2,118	1,661	-
D	2,305	1,494	2,057	1,293	2,118	1,421	-

TABLE 5.2 – PROJECTED POPULATION BY COMMUNITY PENINSULA MALAYSIA, 1970 TO 1990

Projection	1970	1975	1980	1985	1990
All Communities					
A	9,181,674	10,385,612	11,945,909	13,838,963	16,239,350
B	9,181,674	10,343,394	11,830,309	13,589,573	15,779,770
C	9,181,674	10,316,828	11,715,976	13,215,830	15,001,475
D	9,181,674	10,159,455	11,361,903	12,645,741	14,116,498
Malay					
A	4,841,268	5,498,307	6,415,433	7,502,384	8,985,925
B	4,841,268	5,474,137	6,361,134	7,382,280	8,771,637
C	4,841,268	5,462,380	2,321,679	7,219,810	8,384,810
D	4,841,268	5,436,507	6,210,052	7,006,993	8,006,849
Chinese					
A	3,285,991	3,699,933	4,180,270	4,797,694	5,487,349
B	3,285,991	3,686,019	4,129,410	4,683,951	5,278,263
C	3,285,991	3,674,528	4,067,145	4,497,323	4,937,855
D	3,285,991	3,548,774	3,844,182	4,189,580	4,512,199
Indian					
A	981,449	1,105,756	1,260,771	1,441,570	1,660,575
B	981,449	1,101,622	1,250,330	1,426,027	1,624,369
C	981,449	1,098,304	1,237,717	1,401,382	1,573,389
D	981,449	1,092,558	1,218,234	1,351,853	1,491,949
Other					
A	72,966	81,616	89,435	97,315	105,501

TABLE 5.3 – RATES OF INCREASE BY COMMUNITY

PENINSULA MALAYSIA, 1970 – 1990

Community and Projection	Percent Increase 1970–1990	Percent Increase 1970–1990
Total		
A	76.86	2.776
B	71.86	2.643
C	62.66	2.385
D	53.64	2.118
Malay		
A	85.61	2.997
B	81.18	2.887
C	71.81	2.622
D	65.39	2.464
Chinese		
A	66.99	2.540
B	60.63	2.327
C	50.27	2.009
D	37.32	1.572
Indian		
A	69.20	2.570
B	65.51	2.467
C	60.31	2.317
D	52.01	2.063
Other		
A	44.59	1.823

TABLE 5.4 – PER CENT DISTRIBUTION OF POPULATION BY COMMUNITY, PENINSULA MALAYSIA

Community	1970	1975	1980	1985	1990
Projection A					
Total	100.00	100.00	100.00	100.00	100.00
Malay	52.73	52.94	53.65	54.18	55.31
Chinese	35.79	35.62	35.03	34.69	33.81
Indian	10.69	10.65	10.56	10.42	10.23
Other	0.79	0.79	0.76	0.71	0.65
Projection B					
Total	100.00	100.00	100.00	100.00	100.00
Malay	52.73	52.94	53.72	54.47	55.62
Chinese	35.79	35.65	34.94	34.61	33.50
Indian	10.69	10.65	10.58	10.54	10.31
Other	0.79	0.76	0.76	0.38	0.57
Projection C					
Total	100.00	100.00	100.00	100.00	100.00
Malay	52.73	53.01	53.96	54.63	55.70
Chinese	35.79	35.66	34.71	34.03	33.06
Indian	10.69	10.66	10.56	10.60	10.54
Other	0.79	0.67	0.77	0.74	0.70
Projection D					
Total	100.00	100.00	100.00	100.00	100.00
Malay	52.73	53.51	54.66	55.40	56.72
Chinese	35.79	34.99	33.83	33.13	31.96
Indian	10.69	10.75	10.72	10.69	10.57
Other	0.73	0.75	0.79	0.78	0.75

TABLE 5.5 – PER CENT DISTRIBUTION BY AGE, PENINSULA MALAYSIA

1970 – 1990

Projection and Age	1970	1975	1980	1985	1990
A					
Under 15	44.34	42.16	40.87	41.54	42.12
15 – 64	52.30	54.05	55.62	55.05	54.67
65 +	3.36	3.79	3.51	3.41	3.21
Total	100.00	100.00	100.00	100.00	100.00
B					
Under 15	44.34	41.92	40.14	40.45	40.27
15 – 64	52.30	54.29	56.33	56.08	56.43
65 +	3.36	3.79	3.53	3.47	3.35
Total	100.00	100.00	100.00	100.00	100.00
C					
Under 15	44.34	41.62	39.53	38.72	37.66
15 – 64	52.30	54.58	56.89	57.72	58.85
65 +	3.36	3.80	3.58	3.56	3.49
Total	100.00	100.00	100.00	100.00	100.00
D					
Under 15	44.34	40.84	37.59	35.77	34.32
15 – 64	52.30	55.30	58.72	60.49	61.98
65 +	3.36	3.86	3.69	3.74	3.70
Total	100.00	100.00	100.00	100.00	100.00

TABLE 5.6 – DEPENDENCY RATIOS BY COMMUNITY, PENINSULA MALAYSIA

Projection	1970	1975	1980	1985	1990
All Communities					
A	91.21	84.98	79.79	81.65	82.91
B	91.21	84.17	78.52	78.33	77.23
C	91.21	83.19	75.78	73.33	69.01
D	91.21	80.82	70.30	65.29	61.27
Malay					
A	93.75	91.55	84.89	87.60	87.33
B	93.75	90.63	83.74	84.68	81.52
C	93.75	90.23	82.01	80.37	73.92
D	93.75	89.17	78.50	74.22	67.09
Chinese					
A	87.98	77.90	73.87	73.34	75.29
B	87.98	77.31	69.96	69.23	69.34
C	87.98	75.95	68.09	62.49	60.79
D	87.98	70.66	58.87	51.37	50.78
Indian					
A	89.88	81.28	78.84	86.06	91.29
B	89.88	80.42	77.08	83.10	86.02
C	89.88	79.87	75.06	79.56	79.31
D	89.88	78.78	71.98	72.44	69.78
Other					
A	66.17	50.68	36.91	26.90	27.52

TABLE 5.7 – PER CENT CHANGES IN RATIOS 1 AND 2 PENINSULA MALAYSIA

1970 – 1990

Projection and Year	Ratio 1			Ratio 2		
	Ratio	Percent Change	Estimated Persons Per Household	Ratio	Percent Change	Estimated Persons Per Household
1970	0.934	-	5.63	5.932	-	5.63
A						
1975	0.841	-10.0	5.07	5.696	- 4.0	5.41
1980	0.839	- 2.4	4.95	5.255	- 7.7	4.99
1985	0.845	+ 0.7	4.98	4.990	- 5.0	4.75
1990	0.859	+ 1.6	5.06	4.960	- 0.6	4.72
B						
1975	0.818	-12.4	4.93	5.639	- 4.9	5.35
1980	0.811	- 0.8	4.89	5.149	- 8.5	4.90
1985	0.791	- 2.5	4.77	4.771	- 7.3	4.54
1990	0.770	- 2.6	4.65	4.608	- 3.4	4.39
C						
1975	0.804	-13.9	4.85	5.584	- 5.9	5.30
1980	0.762	- 5.2	4.60	4,985	-10.7	4.73
1985	0.680	-10.8	4.10	4.441	-10.9	4.22
1990	0.643	- 5.4	3.88	4.078	- 8.2	3.88
D						
1975	0.719	-23.0	4.34	5.396	- 9.0	5.12
1980	0.641	-10.8	3.87	4.597	-14.8	4.36
1985	0.593	- 8.1	3.56	3.926	-14.6	3.88
1990	0.537	- 9.4	3.23	3.513	-10.5	3.48

TABLE 5.8 – PERSONS PER HOUSEHOLD, TOTAL POPULATION, AND ESTIMATED NUMBER OF HOUSEHOLDS,PENINSULA MALAYSIA, 1970 – 1990

Projection and Year	Persons Per Household	Total Population	Number of Households
1970	5.63	9,181,674	1,630,848
A			
1975	5.41	10,385,612	1,919,706
1980	4.99	11,945,909	2.393,970
1985	4.75	13,838,573	2,913,384
1990	4.72	16,239,350	3,440,540
B			
1975	5.35	10,343,394	1,933,345
1980	4.90	11,830,309	2,414,349
1985	4.54	13,589,573	2,993,298
1990	4.39	15,779,770	3,594,481
C			
1975	5.30	10,316,828	1,946,571
1980	4.73	11,715,976	2,476,950
1985	4.22	13,215,830	3,131,713
1990	3.88	14,934,594	3,849,122
D			
1975	5.12	10,159,455	2,054,581
1980	4.36	11,361,903	2,605,941
1985	3.88	12,645,741	3,259,212
1990	3.48	14,116,498	4,056,465

TABLE 5.9 – EXPECTED CHANGES IN HOUSEHOLD SIZE AND COMPOSITION

PENINSULA MALAYSIA, 1970 –1990

Year and Projection	Household Size	Composition			
		Parents	Children under 15	Members over 65	Older children and others
1970	5.63	1.98	2.50	0.19	0.96
A					
1975	5.41	1.98	2.28	0.16	0.99
1980	4.99	1.98	2.04	0.18	0.79
1985	4.75	1.98	1.97	0.16	0.64
1990	4.72	1.98	1.99	0.15	0.60
B					
1975	5.12	1.98	2.02	0.19	0.93
1980	4.36	1.98	1.64	0.16	0.57
1985	3.88	1.98	1.39	0.14	0.37
1990	3.48	1.98	1.19	0.12	0.19

Note: This table refers to Projections A and B only.

TABLE 5.10 – PROJECTED URBAN POPULATION GROWTH

PENINSULA MALAYSIA, 1970 – 1990

Year	Population assuming 1970–73 growth rate in non-extractive employment*	Urban population as per cent of projected population			
		A	B	C	D
1970	2,545,530	27.7	27.7	27.7	27.7
1975	2,997,268	28.8	29.0	29.1	29.5
1980	3,529,172	29.5	29.8	30.1	31.1
1985	4,155,470	30.0	30.6	31.4	32.9
1990	4,892,913	30.1	31.0	32.6	34.7

Note: Projected on assumption of Constant 1957–70 urban growth rate in Peninsula Malaysia.

TABLE 5.11 – PROJECTED URBAN POPULATION, PENINSULA MALAYSIA

1970 – 1990

Year	Population assuming 1970–73 growth rate in non-extractive employment*	Urban population as per cent of projected population			
		A	B	C	D
1970	2,545,530	27.7	27.7	27.7	27.7
1975	3,298,814	31.8	31.9	32.0	32.5
1980	4,275,013	35.8	36.1	36.5	37.6
1985	5,540,093	40.0	40.8	41.9	43.8
1990	7,179,541	44.2	45.5	47.8	50.9

Note: Projected on assumption of Constant 1970–73 growth rate of non-extractive industry employment in Peninsula Malaysia.

TABLE 5.12 – PROJECTED NUMBERS OF PHYSICIANS AND DENTISTS, NURSES AND HOSPITAL BEDS, PENINSULA MALAYSIA, 1970–1990

Year	1957–70 growth rate	1970 Ratio to Population			
		A	B	C	D
Physicians and Dentists					
1970	3,000	3,000	3,000	3,000	3,000
1975	3,857	3,430	3,413	3,404	3,353
1980	4,959	3,942	3,904	3,866	3,749
1985	6,376	4,567	4,484	4,361	4,173
1990	8,193	5,359	5,207	4,928	4,658
Nurses					
1970	4,982	4,982	4,982	4,982	4,982
1975	7,711	5,608	5,585	5,571	5,486
1980	11,935	6,451	6,388	6,327	6,281
1985	18,473	7,473	7,338	7,136	6,829
1990	28,591	8,769	8,521	8,065	7,622
Hospital Beds					
1970	-	27,927	27,927	27,927	27,927
1975	-	31,157	31,030	30,950	30,478
1980	-	35,838	35,491	35,148	34,086
1985	-	41,517	40,769	39,647	37,937
1990	-	48,718	47,339	44,804	42,349

TABLE 5.13 – PROJECTED NUMBER OF CHILDREN REACHING 6 YEARS OF AGE IN QUINQUENNIAL INTERVALS, PENINSULA MALAYSIA, 1970 – 1990

Projection	1970–75	1975–80	1980–85	1985–90
A	2,463,367	2,985,634	3,583,016	4,190,427
B	2,396,464	2,883,445	3,352,863	3,766,575
C	2,354,370	2,674,383	2,954,066	3,134,767
D	2,107,812	2,410,029	2,589,748	2,600,775

TABLE 5.14 – PROJECTED PRIMARY SCHOOL ENROLMENT PENINSULA MALAYSIA, 1970 – 1990

Projection	1970	1975	1980	1985	1990
Based on 1970 ratio of enrolment to population 6–12 years of age					
A	1,429,249	1,508,799	1,649,798	1,954,767	2,438,144
B	-	1,507,436	1,627,523	1,885,476	2,216,504
C	-	1,494,124	1,584,112	1,814,791	2,070,094
D	-	1,504,792	1,470,487	1,603,796	1,774,146
Assuming one-half percentage point increase in enrolment per year					
A	1,429,249	1,551,468	1,743,112	2,120,613	2,713,952
B	-	1,550,068	1,719,577	2,045,443	2,467,239
C	-	1,536,379	1,673,711	1,968,761	2,304,267
D	-	1,547,348	1,553,659	1,739,865	1,974,842

TABLE 5.15 – PROJECTION OF PRIMARY SCHOOL TEACHERS REQUIRED

PENINSULA MALAYSIA, 1970 – 1990

Projection	1970	1975	1980	1985	1990
Assuming constant ratio of enrolment to population 6–12 years of age					
A	45,736	48,281	52,794	62,552	78,021
B	-	48,238	52,081	60,335	70,928
C	-	47,812	50,692	58,073	66,243
D	-	48,153	47,056	51,321	55,442
Assuming one-half percentage point increase in enrolment per year					
A	45,736	49,647	55,780	67,860	86,846
B	-	49,602	55,026	65,454	78,952
C	-	49,164	53,559	63,000	73,736
D	-	49,515	49,717	55,675	63,195

TABLE 5.16 – PROJECTED SECONDARY SCHOOL ENROLMENT

PENINSULA MALAYSIA, 1970 – 1990

Projection	1970	1975	1980	1985	1990
Based on 1970 Ratio of Enrolment to Population 12 to 18 Years of Age					
A	510,491*	598,655*	643,064*	657,190	712,565
B	-	-	-	650,874	723,612
C	-	-	-	646,887	702,142
D	-	-	-	623,215	622,292
Assuming One Percentage Point Increase in Enrolment Per Year					
A	510,491*	676,001*	809,230*	911,915	1,080,816
B	-	-	-	903,150	1,097,571
C	-	-	-	897,618	1,065,006
D	-	-	-	864,771	943,891

* Figure is the same for all projections

TABLE 5.17 – PROJECTED REQUIREMENT OF SECONDARY SCHOOL TEACHERS PENINSULA MALAYSIA, 1970 – 1990

Projection	1970	1975	1980	1985	1990
Based on 1970 Ratio of Enrolment to Population 12 to 18 Years of Age					
A	19,775*	23,168*	24,886*	25,433	27,576
B	-	-	-	25,189	28,004
C	-	-	-	25,034	27,173
D	-	-	-	24,118	24,083
Assuming One Percentage Point Increase in Enrolment Per Year					
A	19,775*	26,161*	31,317*	35,291	41,828
B	-	-	-	34,954	42,476
C	-	-	-	34,738	41,216
D	-	-	-	33,467	36,528

* Figure is the same for all projections

TABLE 5.18 – PROJECTED AMOUNT IN 1990 AND ANNUAL PER CENT INCREASE IN GOVERNMENT EXPENDITURE FOR SOCIAL SERVICES, PENINSULA MALAYSIA, 1970 – 1990

Projection	Per Capita Basis		Per Household Basis	
	Amount	Per Cent Per Annum Change	Amount	Per Cent Per Annum Change
1970	1,003.6	-	1,003.6	-
1990				
A	1,775.0	2.8	2,117.3	3.6
B	1,724.8	2.6	2,212.1	3.8
C	1,639.7	2.4	2,368.7	4.0
D	1,542.9	2.1	2,496.4	4.3

CHAPTER VI

THE MALAYSIAN POPULATION PROBLEM

The one characteristic Malaysia has in common with other developing countries is a rapid rate of population growth. Its current rate of 2.6 per cent per year places it high among Asian nations. But the meaning of that fact must be assessed in the context of Malaysia's economy and of the changes presently occurring.

Although the Malaysian economy rests heavily upon its extractive industries, those industries are strongly market oriented, and they are becoming increasingly so. Two-thirds of the 1957-70 increase in agricultural employment occurred in the cultivation of industrial products – rubber and palm oil. Despite an abundance of undeveloped land the main sectoral shift of the past decade or more has been toward the non-extractive industries. Increase in employment in manufacturing, commerce, the services and administration together have exceeded the growth of employment in agriculture and mining by a ratio of more than 4 to 1, and has moved at twice the rate of population increase. Economic growth generally as measured by the gross national product, has also outstripped population growth by a rate (6% per year) which is better than twice the population rate of growth.

Meanwhile the rate of population growth has been declining. The birth rate, as we have shown, entered upon its decline in 1958 and has fallen by 22 per cent since that date. Most of the decline is attributable to a rising age of marriage. It was not until around 1967, however, that the downward movement of the birth rate caught up with the decline of the death rate and brought about a reduction of natural increase. Malaysia appears now to be well into the demographic transition. That movement may be accelerated by the nation wide family planning program which has gathered momentum since its inauguration in 1966. But the heritage of Malaysia's high growth rate past will sustain a substantial rate of increase for perhaps another two generations.

There is nothing, in short, in the Malaysian situation that would support a Malthusian interpretation of population trends. The problem it faces is, to be sure, one of differential rates of change. The variables, however, are economic growth and population, rather than resources and population. Its population problem, if indeed it may be called a population problem, is two-fold. One facet is economic in the narrow sense, the other is essentially a socio-political complication of the former.

On the economic side Malaysia must contend with numbers of young people maturing annually to labour force ages that exceed the numbers leaving the labour force through deaths and retirements by as much as 2.5 to 1. The pressure upon economic opportunity will be eased somewhat by further extensions of years spent in school, though that effect may be neutralized by the increasing participation of women in the non-extractive sector of the labour force. Although the Economic Planning Unit reported considerable success in the creation of new jobs between 1970 and 1973, it also reported an unemployment proportion as of 1973 of 7.3 per cent. It seems clear that for the next 20 years or more the Malaysian economy will be hard pressed to provide opportunities for its growing labour force.

The socio-political aspect of the Malaysian problem concerns the equalization of opportunity among the major community groups. Malays, by virtue of their historic attachment to the land, are concentrated in low paying, labour intensive occupations. They carry the major burden of poverty. Although the Indians are only one-fifth as numerous as the Malays, their position in the economy is even less favourable. Employment in the rubber estates, which has served as a major avenue of Indian labour force participation, has been declining without a compensating growth of alternative opportunities. By contrast, the long urban experience of the Chinese has qualified them for a much fuller participation in manufacturing, commercial, and technical occupations. Consequently, they are disproportionally represented in those employments. The differences by community groups are relatives, each of the groups faces a growth of its labour force component which is considerably faster than the increase of opportunities available to it. Nevertheless, the differentials are significant enough to constitute a major problem of social inequity. Changes are in process of course. As we have seen, the urbanization of the Malays has been moving rapidly and their employment in modern sector industries has been developing correspondingly. The Malaysian government's 'New Economic Policy' is designed specifically to accelerate the trends toward an equalization of opportunity between the community groups.

Underlying both facets of the Malaysian problem is the need to raise the capacity of the population to staff a modern society. The 1970 median years of school completed, which was slightly above 5 years,points to a deficiency of trained manpower. There are acute shortages in virtually all of the technical fields, at both professional and middle-range levels. The problem is fully recognized by the government. Approximately 1.2 per cent of the annual budget is allocated to education. Every advantage is being taken of foreign training opportunities for Malaysian youth. Until the quality of the labour force is brought to the level required the welfare of the population will remain below what should and can be achieved.

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