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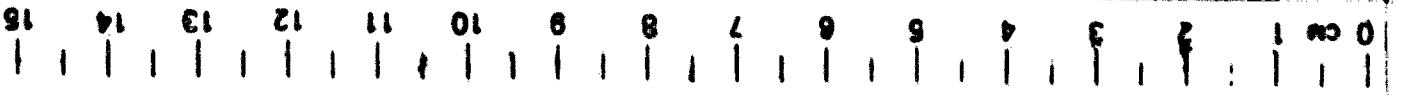
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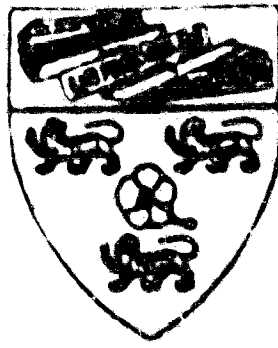
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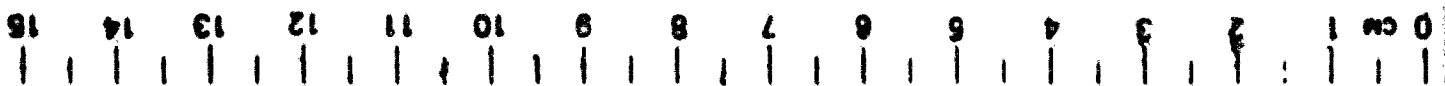
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THE POPULATION OF PENANG

by

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A Graduation Exercise presented to
the University of Malaya in
part fulfillment towards the
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SYNOPSIS

Brunei is the richest state in Borneo, and the smallest. Its history can be traced back for several centuries, but economic progress became marked only subsequent to, and was a direct consequence of, the growth of the oilfield in her midst. Such development, however, is more than compensated by her diminutive size - 2,226 square miles - with the result that little research has been undertaken on the country and its people. This unfortunate paucity is matched by an equally small volume of statistics published in the country. Hence, the major sources of information for this exercise are census reports and registration data. Of the former, only the 1947 and 1960 Censuses are sufficiently comprehensive for analysis; of the latter, available annual reports date only from 1935. As such, the analysis outlined here can, at best, be superficial, though it must equally be admitted that general patterns are discernable.

One fact which must always be borne in mind is that the smallness of the numbers involved may cause some exaggeration or distortion in interpretation. This is particularly true where the residual group of people - "Others" - is concerned.

The population of Brunei is essentially cosmopolitan. Like the other states in Borneo, the Indigenous peoples - Malays and a multitude of indigenous races or tribes, some minute, some substantial, make up the largest proportion of the population. In conformity with the rest of Southeast Asia, Chinese constitute a minority, significant in numbers, but zero so in economic power. Others, mainly Indians and Europeans, form only a small minority.

A third factor which pervades the whole analysis is the importance of the oilfield as an influence upon the demographic structure of the population. Thus, the growth of the oilfield constitutes the single most important factor determining the direction and volume of migration, both internal and international, while the distortion of the sex-age structures are all consequences, albeit less direct, of the same phenomenon.

Despite the importance of the oilfield, the state is still basically agricultural. This is shown by an analysis of the population by industry and occupation.

This exercise attempts to describe and analyse, with the limited data available, the structure and characteristics of the population of Brunei. An outline of population distribution and structure is found in Chapters I and II. This is followed by a broad analysis of various characteristics - Migration (Chapter III) and Marital Status (Chapter IV). Births, Deaths and Natural Increase are in Chapter V. Finally, Chapter VI summarises the economic characteristics of the working population.

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INTRODUCTION

Brunei, an internally self-governing Islamic Sultanate under British protection, comprises an area of 2,225 square miles on the western coast of Borneo, between latitude $4^{\circ} 2'$ and $5^{\circ} 3'$ North, and longitude $114^{\circ} 4'$ and $115^{\circ} 2'$ East. It is an enclave surrounded by Sarawak territory except from the sea, and split into two parts by an intrusion of Sarawak territory formed by the basin of the Limbang River. Its borders are neither protected by mountains nor other natural barriers, as a consequence of which there is considerable movement of indigenous peoples across the border.

The climate is tropical, and is characterized by fairly uniform temperatures, high humidity and copious rainfall which ranges from 100 inches at the coast to more than 200 inches in the uplands. A slight seasonality is present, October to March, the Northeast Monsoon months, being the wet season, and the rest of the year being the "dry" months.

Culturally, the indigenous peoples have close ties with their neighbours. Subject to local variations, they speak the same language and practise the same customs. The boundaries of Brunei are neither geographical nor ethnic.

Historically, Brunei is today much smaller than it was a century ago. Anarchy and piracy resulted in the cession of Sarawak and Labuan, and this was followed in 1877 by the northern part of the Sultanate - which was to form the nucleus of British North Borneo. Since 1900, there has been no significant territorial change, Brunei having become the smallest State in Borneo. In the consideration of population growth, we can thus ignore territorial expansion as a factor.

CHAPTER I

POPULATION DISTRIBUTION AND GROWTH

Distribution

The population of Brunei as enumerated in the Census of 1960 was given as 83,677¹ and the latest estimate gave the figure 93,438 in 1963.² With an area of 2,226 square miles, these yield densities of 38 per square mile and 44 per square mile respectively.

Overall densities are, however, deceptive in the sense that they convey an impression of homogeneity of distribution over the whole state. This, in fact, is far from the truth. Densities by districts would have been more helpful. Brunei is divided, for census purposes, into five districts, viz., Belait, Tutong, Brunei Rural, Brunei Municipal and Temburong.

TABLE 1.1

TOTAL POPULATION BY CENSUS DISTRICT
AND DENSITY, 1960^(a)

District	Population	Area in Square Mile	Density per Square Mile	% of Total Population
Belait	31,703	1,059	30	37.8
Tutong	10,710	457	23	12.8
Brunei Rural	27,809	200	139	33.2
Brunei Municipal	9,702	4	2,156	11.6
Temburong	3,943	505	8	4.7
Total Brunei	83,677	2,226	38	100.0

(a) Slight discrepancies between the sum of individual figures in certain columns and the totals at the foot of the table are due to rounding.

¹This includes 82 transients (people not normally resident in Brunei, but who are on board an ocean going vessel in Brunei waters).

²State of Brunei, Annual Report, 1963 (Kuala Belait, Brunei Press, 1965) p. 19.

Table 1.1 shows the five districts, together with total area and density for each district. Belait is the largest of the districts, with an area of 1,059 square miles or slightly less than 50% of the land area of Brunei, and a population of 31,703, or 37.8% of the total population. In addition to the fact that it has the largest land area, its large population is also accounted for by the fact that within its borders lies an important oilfield - that of Kuala Belait-Seria. The district with the smallest population is Temburong, a separate enclave of its own and removed from the rest of Brunei by a finger of Sarawak territory that reaches to the sea.

Perhaps a more accurate picture can be gained from an analysis by density per square mile. Brunei Municipal is the most densely populated district of Brunei, and has a density of 2,156 persons per square mile. This phenomenal density is accounted for by the fact that Brunei Municipal District comprises, in essence, Brunei Town, and is classified as a district only because it is the only town of any size in Brunei, and possesses, in consequence, characteristics and problems of its own. Brunei Rural is next, having a density of 139 persons per square mile, but about half the population here lives in Kempong Ayer, so that the figure 139 is but an uninformative average between the more densely populated Kempong Ayer and a sparsely populated countryside. Again, Temburong is the most sparsely populated district.

In a sense, analysis by district is by no means completely satisfactory. It merely reduces the apparent homogeneity from the State level to the district level. For one thing, the district boundaries are merely arbitrary demarcations. Jones remarked:-

"There must be many now who do not know which district they live in; and how many of the numerous travellers between Brunei and Seria know when they cross the boundary first into Tutong district and then into Belait district ..."

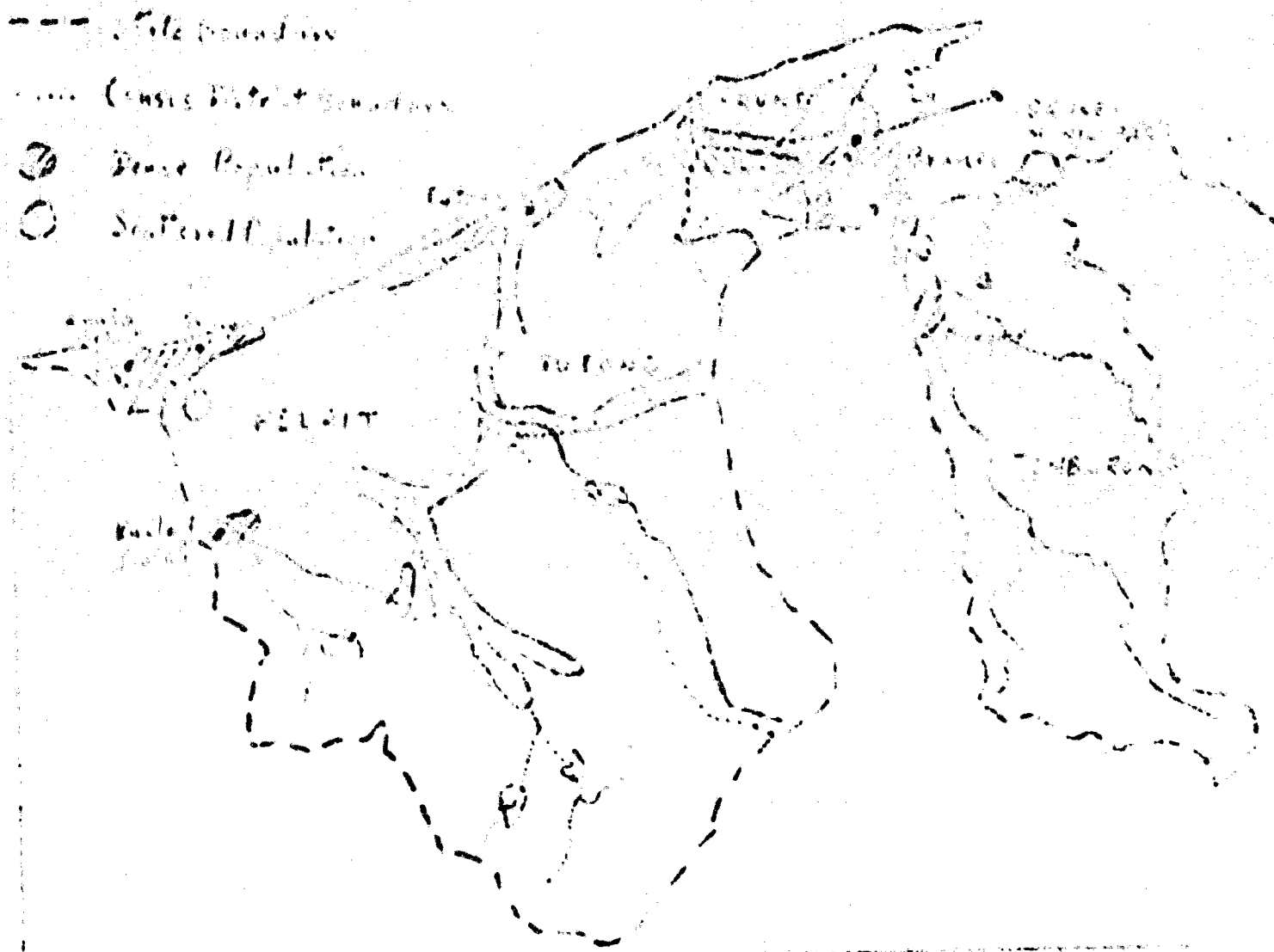
For another, the development of communications - has brought the people closer together. The boundaries, as such, have increasingly become little more than administrative conveniences.

Figure 1.1 gives a general picture of the population distribution in Brunei. The areas of dense population are mainly coastal - the Kuala Belait-Seria area, Tutong and Brunei District. Further inland are two pockets of dense population, Kuala Belai and Bangar, both along rivers. Other areas of sparse population are found along the main rivers. Both Brunei Municipal and Brunei Rural are well populated, while Temburong is hardly populated at all.

³Jones, L. I., "Brunei. Report on the Census of Population, 1960". (Kuching, Govt. Printing Office, 1961) p. 23.

FIGURE 1.1

POPULATION DISTRIBUTION MAP OF BRUNAI (a)



(a) Based on Hoopes, J.L., "Brunei and Borneo: A Report on the 1947 Population Census", (Kuching, Govt. Printing Office, 1950).

From the above account, it can be seen that the main factors influencing population distribution are geographical. By far the most important is the existence of the oilfield which not only affects the distribution of population but also the livelihood of the people. Another factor is communications; the rivers which serve as means of transport are at least sparsely populated, and towns have grown up along them. The presence of a denser population at the coast can be similarly explained. Finally, geographical position as a factor must be given due consideration; the case of Temburong hardly needs elaboration.

TABLE 1.2
 PERCENT DISTRIBUTION OF EACH RACE BY DISTRICT, 1960

Race	Total Brunei	Belait	Tutong	Brunei Rural	Brunei Municipal	Temburong
Malay	100.0	24.0	11.1	53.0	9.0	2.9
Other Indigenous	100.0	32.3	34.2	15.7	1.3	16.5
Chinese	100.0	64.9	4.0	7.0	22.2	1.9
Others	100.0	76.4	1.0	4.6	17.5	0.5
All Races	100.0	37.8	12.8	33.2	11.6	4.7

Table 1.2 shows the distribution of various races in the five districts. Among the Malays, by far the largest percentage is found in Brunei Rural, with Belait taking second place, the percentages of the total Malay population being 53.0 and 24.0 respectively. The distribution of the "Other Indigenous" is slightly different, the largest percentage being found in Tutong and Belait. The Chinese, being generally urban dwellers are mostly found in Belait (64.2) - chiefly employed in the oilfield, and in Brunei Municipal (Brunei Town). The "Others", being almost entirely immigrant, show an even greater concentration in Belait, and a much smaller percentage in the town (Brunei Municipal - 17.5%). The large percentages of all races found in Belait attest to the importance of the oilfield as a source of employment among all races.

Growth

There are, strictly speaking, two sources of population growth. One is natural increase, or the excess of births over deaths. The other is migration. Brunei is influenced by both factors, each of which will be dealt with in greater detail in Chapters III and V. The purpose of this section is to review the general patterns of growth. There is a third factor - territorial expansion - but as has been mentioned, this is irrelevant in the context of Brunei.

The first census of Brunei was taken in 1911 in conjunction with the census of Malaya. Prior to this virtually no records on population were available - even the 1911 Census did not contain as much information as one would desire.⁴ Subsequently, censuses were taken in 1921 and 1931 (still as a part of the Census of British Malaya), 1947 (jointly with Sarawak) and in 1960, the first Census taken for Brunei alone.

The population of Brunei in the early twentieth century was sparse, vast tracts being covered with uninhabited jungles just as much of Sarawak and North Borneo are today. Immigration, if any, were insignificant and there were certainly few records to show such movements. Population growth, almost entirely natural, was slow. (Table 1.3) Noakes wrote:

"The 1931 Census of Brunei covered a population almost wholly indigenous, comparatively secluded and unaffected by the economic disturbances of the modern world ..."⁵

The annual rates of growth between 1911 and 1921 and 1921 and 1931 were only 1.6% and 1.7% respectively. The oilfield was opened in 1929, but it was only after 1931 that immigration began to assume a major role in population growth. An influx of foreign labour and capital resulted in a slight shift of the economy from agriculture to "industry".

⁴All figures for 1911 used here are taken from the 1921 Census Report, no copy of the 1911 Census Report being available for use.

⁵Noakes, op. cit., p. 10.

TABLE 1.3

GROWTH OF TOTAL POPULATION, BRUNEI, SARAWAK, N. BORNEO, 1911-1960

State	Census Year	Total Population	Increase	% Increase	Annual Rate of Growth (a) (%)
Brunei	1911	21,718	-	-	-
	1921	25,451	3,733	17	1.6
	1931	30,135	4,684	18	1.7
	1947	40,657	10,522	35	1.9
	1960	83,877	43,220	106	5.7
Sarawak	1939	490,585	-	-	-
	1947	546,365	55,800	11	1.4
	1960	744,529	198,144	36	2.6
North Borneo	1921	263,252	-	-	-
	1931	277,476	14,224	5	0.5
	1951	334,141	56,665	20	0.9
	1960	454,421	120,280	36	3.5

(a) By formula $P_2 = \frac{P_1}{(1+r)^n}$ where P_2 = population of later census; P_1 = population of earlier census; n = number of years between censuses; r = rate of increase.

This favourable development was, however, arrested with the outbreak of World War II. The occupation of Brunei by the Japanese in December 1941, resulted in a movement back to agriculture. The 1947 census showed an annual rate of increase between 1931 and 1947 of only 1.9% a figure by no means indicative of the developments in the 1930s. Nevertheless, the corresponding percentage increase in population was 35% as compared with 11% for Sarawak and 20% for North Borneo over roughly the same period.

By November 1947, however, rehabilitation of the oilfield resulted once more in a trend towards an industrial economy. Since then, employment has expanded to record dimensions, reaching its peak in 1954, and then - declining as the life of the field lessens. The rate of growth between 1947 and 1960, 5.7%, is unprecedented throughout British Borneo.

Table 1.4 shows the growth of population by district between 1931 and 1960. Whereas the total population expanded about three times, that of Belait expanded eight times. This is obviously due to the development of the oilfield. It is also worthy of note that out of an increase of 16,522 persons - between 1931 and 1947, 8,670 or about 35% was in Belait. Figures for the other districts are all below - the overall figure of 34.9% for 1931-47. In particular the abnormally low figure of 1.4% for Brunei District is caused by the destruction during the war.

Between 1947 and 1960, overall population increased by 106.3%. Again, only Belait exceeds this figure. The recovery of Brunei District is shown by the fact that the percentage increase between 1947 and 1960 is 97.6% (1.4% for 1931-1947). As before, population growth was slowest in Temburong and Tutong.

Table 1.5 shows population growth by race. Between 1911 and 1921, the Chinese experienced the greatest percentage increase, this trend being evident also between 1921 and 1931. The fantastic increase of 730.6% for the "Others" group is misleading, since the numbers involved were too small to permit accurate interpretation. Between 1931 and 1947, the trend persisted, so that from 1911 to 1947, Chinese population growth was the most pronounced. And since natural increase is not normally subject to large fluctuations, the inevitable conclusion is that much of this increase is the result of migration. Growth between 1947 and 1960 is somewhat different. The Malays, for the first time, experienced the highest rate of growth, a possible explanation being migration from neighbouring states as a result of the oil boom. The 162.6% increase for the Chinese and 140.7% increase for the "Others" is due to the same cause. The decrease of 2.4% among the "Other indigenous" group is explained less by an actual decline in numbers among the group but rather by the fact that many of them had chosen to call themselves "Malay" - also a partial explanation for the large increase in "Malays".

TABLE 1.4
GROWTH OF POPULATION BY DISTRICT, 1931-1960

District	1931	1947	1960	Increase	
				1931-1947	1947-1960
Belelit	3,897	12,567	31,708	222.5	152.3
Tutong	5,651	6,847	10,710	21.2	56.4
Brunei Rural	18,281	18,531	37,511	1.4	97.6
Brunei Municipal	2,306	2,712	3,948	17.6	45.6
Tenburong					
Total Brunei	30,135	40,657	83,877	34.9	106.3

TABLE 1.5
GROWTH OF POPULATION BY RACE, 1911-1960

Year	1911	1921	1931	1947	1960
Numbers:-					
Malay	20,916	13,641	14,835	16,742	45,135
Other Indigenous	736	10,302	11,911	14,419	14,068
Chinese	66	1,423	2,683	8,300	21,795
Others		85	706	1,196	2,879
Total Brunei	21,718	25,451	30,135	40,657	83,877
% Change:-					
Malay		24.5	6.8	12.9	169.6
Other Indigenous		93.5	15.6	21.1	(2.4)(a)
Chinese		28.8	88.5	209.4	162.6
Others			730.6	69.4	140.7
Total Brunei		17.2	16.4	34.9	106.3

(a) Decrease is shown within brackets.

CHAPTER II

POPULATION STRUCTURE

The structure of population is determined by three factors - fertility, mortality and migration, all of which are important in the context of Brunei. A study of population structure, then may conceivably aid in the understanding of these factors. However, the adequacy or rather inadequacy of data poses a real problem. It is hardly possible to trace the structure of the population from the very beginning. The 1911 Census, for instance, provides only limited data, sometimes non-comparable with information from later censuses. Nevertheless, the available data yield a fairly accurate picture of the population structure. In the analysis of the population structure, we shall examine the a) race, b) sex and c) age compositions of Brunei.

Race

A major problem in an analysis by race is the difficulty of definition. What, for example, constitutes "indigenous" persons. Should the criterion be ethnic, or should it be in terms of birth or residence over a period of time? The choice appears futile, for each is limited in scope.

"If the "indigenous" people shall be regarded as the descendants of those who lived in the country during a certain period ... then the pedigree of almost every individual born in the country must be examined ... if the term ... is confined to those people with their origin in Brunei, then it is necessary to exclude many "natives" (perhaps the majority) who are today indistinguishable from their fellow Borneans".¹

Even if satisfactory definitions can be found, it is still difficult to distinguish between the various groups. For instance, the Kedayans group declined between 1947 and 1960 because many chose to call themselves Malays. The classifications used here are more or less intelligible to the man in the street, and meanings conform roughly to normal usage.

Table 2.1 shows the race composition of Brunei over the years 1911-1960.

The Malays are, and have been, the predominant race in Brunei. They are distinguished from the "Indigenous" people by their more

¹Loakes, op. cit., p. 29.

TABLE 2.1

CHANGE IN RACIAL COMPOSITION, 1911-1960

Race	1911	1921	1931	1947	1960
Numbers:-					
Malay	20,916	13,641	14,835	16,742	45,135
Other Indigenous	736	10,302	11,911	14,419	14,068
Chinese	66	1,423	2,683	8,300	21,795
Others		85	706	1,196	2,879
All Races	21,718	25,451	30,135	40,657	83,877
Percentages:-					
Malay	96.3	53.6	49.3	41.2	53.9
Other Indigenous	3.4	40.5	39.5	35.5	16.7
Chinese	0.3	5.6	6.9	20.4	26.0
Others		0.3	2.3	2.9	3.4
All Races	100.0	100.0	100.0	100.0	100.0

"urban" habits, and their preference to live along the coast rather than in the interior. Until 1947, despite increases in absolute numbers, the proportion of Malays decreased regularly from 53.6% in 1921 to 41.2% in 1947. This may be attributed to their slow rate of natural increase and the large scale emigration, especially of the Chinese. Their large increase in numbers between 1947 and 1960 is accounted for by the absorption of other indigenous races, as a result of which the large percentage of 53.2% could only be obtained at the expense of diminishing the percentage for the Other Indigenous races from 35.5% in 1947 to 16.7% in 1960.

The "Other Indigenous" group is composed mainly of Kadayan, Melanau, Lutong, Sea-Dayak, Iban, and others. As a group, they are becoming a smaller part of the total population throughout the years 1911-1960, but the sudden drop to 16.7% occurred only in 1960. The reason for this has already been explained. What is less apparent is the fact that not all the indigenous groups declined in this way. The Kadayans, of course, bore the brunt of the burden, dropping from being 21.6% of the Indigenous population in 1947 to 7.5% in 1960, but the Sea Dayaks increased from 4.5% to 6.6% over the same period - through immigration from the neighbouring states.²

The largest immigrant community is the Chinese. There had been intercourse between Brunei and China for several centuries³ but settlement occurred only in the 20th century. In 1911 Chinese formed only 3.4% of the population. Essentially an urban race, they settled near or in the towns, preferring trade to agriculture, though many grew commercial crops. They do not, however, assimilate, and keep their own language and customs. As a distinct group, they have become, in Brunei as in other parts of Southeast Asia, the "hated capitalists". Of the Chinese, Blundell wrote,

"Wise through experience, the Chinese let others sow and tried themselves to reap".⁴

The growth of the Chinese population has been phenomenal, especially after 1951, when the oilfield was being developed. From an insignificant 3.4% in 1911, they accounted for 26.0% of the population by 1960. There is little doubt that much of this increase is the result of immigration.

The "Others" consist chiefly of Europeans, Indians, and Indonesians, and most are immigrant, being attracted by employment opportunities in the oilfield.

²For changes in the composition of "Other Indigenous" Peoples, see Appendix I.

³Purcell, V., "The Chinese in Southeast Asia", (London, O.U.P., 1965) p. 354.

⁴Blundell, P., "The City of Many Waters", (London, 1923), p. 126.

TABLE 2.2

RACIAL COMPOSITION, BRUNEI, SARAWAK,
NORTH BORNEO, 1960

Country	Race	Total Persons	% of Total Population
Brunei	Malay	45,135	53.9
	Other Indigenous	14,063	16.7
	Chinese	21,795	26.0
	Others	2,879	3.4
Sarawak	Malay	129,300	17.4
	Other Indigenous	377,952	50.7
	Chinese	229,154	30.8
	Others	8,123	1.1
North Borneo	Malay	306,498	67.5
	Other Indigenous		
	Chinese	104,542	23.0
	Others	43,381	9.5

Table 2.2 compares the racial composition of Brunei, Sarawak and North Borneo. The percentage of Malays is highest in Brunei, but the composition of the Indigenous population (Malays and Other Indigenous) is similar for all three territories, ranging from 60% to 70%. One noticeable fact is that in Sarawak, the Other Indigenous population is overwhelmingly predominant. In all three territories, the Chinese account for about 20 to 30%.

Sex

In a state influenced by immigration, one must expect marked differences in the sex ratios both of the various races and of the same race at successive censuses. The sex ratios in Brunei from 1921 to 1960 are shown in Table 2.3.

Sex Ratio here refers to the number of males per thousand females, so that a sex ratio which exceeds 1,000 indicates an excess of males, and vice versa. From Table 2.3, it can be seen that in 1921, there were actually more females than males, a situation normally indicative of a lack of immigration, or even of an emigration of males

TABLE 2.3

TOTAL POPULATION BY SEX, 1921-1950

Year	Persons			Sex Ratio (a)
	Total	Male	Female	
1921	25,451	12,561	12,890	974
1931	30,135	15,423	14,712	1,048
1947	40,657	21,508	19,149	1,123
1950	83,877	43,676	40,201	1,086

(a) By formula $\frac{\text{Male}}{\text{Female}} \times 1,000$.

to other states. According to the 1931 Census Report, that was, in fact, what was happening, as some men emigrated seasonally to neighbouring states.⁵ By 1931, however, males exceeded females, there being 1,048 males per 1,000 females. This is evidence of immigration, which is a sex-selective process; it is normal for more single men to migrate than women. The ratio worsened by 1947, reaching a figure of 1,123 as a result of large scale immigration to the Belait oilfield. By 1950, however, the disparity between males and females diminished as the life of the oilfield begins to lessen, and a trend towards parity is now in evidence.

Since only certain races are involved in migration, it would be illuminating to examine the sex ratios of the indigenous and non-indigenous population. This is shown in Table 2.4.

Of the four race groups, only among the Malays do we find an excess of females, but this excess is so slight that we can regard it as parity - equal number of males and females. This indicates a stable population not now influenced by migration. The sex ratio for the "Other Indigenous" group, however shows immigration of these people. One may well say that, immigration of indigenous peoples is a contradiction in terms. We must, however, bear in mind the fact that similar tribes of people across the border in Sarawak and North Borneo are also regarded as "indigenous" and it is these people we are talking about. The Chinese, being an immigrant race, have, as expected, a distorted sex ratio of 1,227. This figure, however, is an improvement over those of

⁵ Wisland, C.A., "British Malaya: A Report on the 1931 Census and on Certain Problems of Vital Statistics", (London, Crown Agents, 1932), p. 50.

TABLE 2.4
TOTAL POPULATION BY SEX AND RACE, 1960

Race	Persons			Sex Ratio
	Total	Male	Female	
Malay	45,135	22,560	22,575	999
Other Indigenous	14,068	7,453	6,615	1,127
Chinese	21,795	12,008	9,787	1,227
Others	2,879	1,655	1,224	1,352
All Races	83,877	43,676	40,201	1,096

earlier years. (In 1921, it was 3,650 males per thousand females⁶), and indicates a trend towards a more stable population. The same argument applies to the "Others" group which is also immigrant.

Table 2.5 shows the sex ratios for the population by age groups.

TABLE 2.5
TOTAL POPULATION BY SEX AND AGE, 1960

Age Group	Persons			Sex Ratio
	Total	Male	Female	
0 - 4	16,093	8,010	8,083	991
5 - 14	23,016	11,679	11,337	1,030
15 - 29	19,293	9,691	9,602	1,009
30 - 44	13,766	7,603	6,153	1,235
45 - 59	6,995	4,369	2,626	1,664
60 & Over	4,714	2,319	2,395	969
All Ages	83,877	43,676	40,201	1,086

It is unlikely that migration has any influence on the age group 0 - 4. Hence, the sex ratio, though slightly in favour of girls, almost reaches parity between men and women. Marked disparity is apparent only for the broad age groups 30 - 44 and 45 - 59. Those in the age group 30 - 44 in 1960 would have been in the age group 10 - 24 in 1940; while those in the age group 45 - 59 in 1960 would have been in the age group 25 - 39 in 1940. It is possible that a considerable number of these (especially the Chinese) have been immigrants during the years of heavy migration 1930 to 1950. Migration, besides being sex-selective, is also age selective, and favours ages from fifteen to forty. Those aged 60 and over in 1960 are less affected by migration, and the ratio of 969 males per 1,000 females is due probably to the typically higher mortality among males at advanced ages.⁷

⁶In 1921, there were 1,117 Chinese males to 306 females; Cf: Nathan, J.R., "The Census of British Malaya, 1921" (London, Waterlow and Sons, 1922).

⁷For a discussion of this characteristic, see Farclay, G.W., "Techniques of Population Analysis". (New York, Wiley & Sons, 1962), p.64.

Finally, it may be worthwhile comparing the sex composition of Brunei with those of Sarawak and North Borneo. Such a comparison is shown in Table 2.6.

TABLE 2.6

TOTAL POPULATION BY SEX, BRUNEI, SARAWAK,
NORTH BORNEO, 1921-1960

Country	Year	Male	Female	Sex Ratio
Brunei	1921	12,561	12,890	974
	1931	15,423	14,712	1,048
	1947	21,508	19,149	1,123
	1960	43,676	40,201	1,036
Sarawak	1947	81,392	63,766	1,276
	1960	120,369	108,785	1,107
North Borneo	1931	31,990	18,066	1,771
	1951	41,427	32,947	1,258
	1960	55,589	48,953	1,135

All three states show pronounced disparities between males and females, showing the importance of migration in influencing the sex composition of the states. The greatest disparity was in North Borneo in 1931, when the sex ratio was 1,771 males per 1,000 females. All three states, however, show a trend towards parity, when the sex ratios approach 1,000, but whereas in Brunei this development occurred only after 1947, in North Borneo, it occurred after 1931.

Age

Collection of age-statistics in Brunei presents serious problems. Especially among the Indigenous people, illiteracy, lack of age records and ignorance of the European method of age reckoning are factors unfavourable to accurate reporting of age. Then, there is the Chinese system of reckoning age. The child is aged 1 when he is born, so that no child will be recorded as aged 0. Further, the child becomes aged 2 at the next Chinese New Year, so that Chinese age may be one or two years ahead of age calculated by the Gregorian calendar.⁸

⁸ For the theory of Chinese age calculation and methods of adjustment, see Saw, S.H., "A Note on Errors in Chinese Age Statistics", *Kajian Ekonomi Malaysia*, Vol. 1, No. 1, June 1964, pp. 37-53.

Thirdly, we have the familiar preference for years ending in 0 and 5 - "heaping" (Appendix II). Mis-statement of age is a major problem. Exaggeration occurs at advanced ages. Hoekes observed that among the Melanau, the men, once they had an adult family, sought distinction by exaggeration of age.⁹ Nathan, in his 1921 Census Report, casts doubts as to the accuracy and hence the value of age statistics for the age group 0 - 5.¹⁰

TABLE 2.7

PERCENT DISTRIBUTION OF TOTAL POPULATION
BY AGE GROUPS, 1921-1960

Age Group	1921	1931	1947	1960
0 - 4	13.9	13.3	14.4	19.2
5 - 14	23.7	24.4	25.2	27.4
15 - 29	26.8	28.1	25.7	23.0
30 - 44	22.3	21.3	20.6	16.4
45 - 59			9.2	8.4
60 & Over	13.3	12.9	4.9	5.6
All Ages	100.0	100.0	100.0	100.0

Table 2.7 shows the change in age composition for the years 1921-1960. In 1921, the working population (ages 15 - 44) comprised 49.1% of the total population of Brunei, and in 1931, it accounted for 49.4%. But by 1950, this has declined to 39.4%. By contrast, the percentage of younger children has increased over the years, and in 1960, accounted for 46.6% of the total population. This may mean that the future natural increase of the population of Brunei will be higher, since the country now has a greater proportion of children who will in time marry and have children of their own.

Table 2.8 shows the age composition among the different races. In the age group 0 - 4, the Malays have the highest percentage (20.7) and the Chinese the lowest (16.4). In the light of the uneven sex ratio of the Chinese, mentioned above, this is by no means unreasonable. However, it may be noted that with the Chinese, this already constituted

⁹ Hoekes, op. cit., p. 54.

¹⁰ Nathan, op. cit., p. 60. See also Appendix II.

TABLE 2.8

PERCENT DISTRIBUTION OF TOTAL POPULATION
BY AGE GROUP AND RACE, 1960

Age Group	All Races	Malay	Other Indigenous	Chinese	Others
0 - 4	19.2	20.7	18.8	16.4	19.0
5 - 14	27.5	23.1	24.7	23.7	21.7
15 - 29	23.0	22.7	26.2	22.4	16.1
30 - 44	16.4	14.3	16.4	17.7	32.1
45 - 59	8.3	7.2	7.5	11.0	9.6
60 & Over	5.6	6.5	6.4	3.8	2.5
All Ages	100.0	100.0	100.0	100.0	100.0

an improvement, the corresponding percentage in 1947 being 15.4, and as the Chinese sex ratio becomes more even, there is every likelihood that the percentage of children will increase. As for the working population, only the percentage for Malays, 37.5% is below the average for all races of 39.4%. The rest are above it. In general, the immigrant races, Chinese and "Others" principally, have an "older" population as the percentages for the age group 45 - 59 show. However, the percentages in the age group "60 and over" for Chinese and "Others" are exceptionally low. This may be due to the effects of immigration. Large scale migration began in the 1930s. If we assume that those who migrated then were aged 15 - 30, then many of those who survived would be between 45 and 60 in 1960. And since migrants made up a considerable part of the Chinese and "Others" population, this may well serve to swell the percentages of the age group 45 - 59 and depress those for "60 and over".

The age structure of Brunei is very similar to those of its neighbours, Sarawak, North Borneo and Singapore (Table 2.9). Japan, as an example of a developed, but now, Asian country, has only about 3/4 as many children as Brunei has (32.8% to 46.6%), but a larger proportion in the working group. (59.0% to 47.0%), i.e., between ages 15 - 59. It also has slightly more old people. Australia has even fewer children, about the same percentage of working population as Japan, and more old people. The United Kingdom has far fewer children, (about 50% of Brunei's proportion), but it has a high percentage of people in the working group and a large percentage of old people. In short, then, Brunei has a very high proportion of children and few older

TABLE 2.9

PERCENT DISTRIBUTION OF TOTAL POPULATION BY
BROAD AGE GROUPS - SELECTED COUNTRIES

Country or State	Year	Age Group			
		0 - 14	15 - 49	50 & over	All Ages
Brunei	1960	46.6	47.8	5.6	100.0
Sarawak	1960	44.5	50.3	5.2	100.0
North Borneo	1960	43.5	52.6	3.9	100.0
Singapore	1957	42.3	53.4	3.8	100.0
Japan	1956	32.8	59.0	8.2	100.0
Australia	1956	29.3	58.3	12.4	100.0
United Kingdom	1956	23.1	60.5	16.4	100.0

people when compared with other countries. When this is the case, it is generally true that the population is growing fast, a generalization borne out by the facts.

Figure 2.1 shows the age pyramids for the total population and for the various races. The pyramids of the Malays and Other Indigenous are broad based, but thereafter narrow considerably. They also appear to be fairly symmetrical about the vertical, indicating an approximate equality between men and women. There is, however, a preponderance of men in the working ages for both social groups. The pyramid for the Chinese is broadest at the base, but does not narrow as rapidly as those of the Malays and Other Indigenous. There is less symmetry among the Chinese and even less among the "Other" races. With the Chinese, an excess of males especially between ages 20 and 50 can be explained by the immigration of Chinese males of working age. The pyramid for "Others" also illustrates an excess of men in the working ages. There is every likelihood that as time goes on the shapes of the pyramids of immigrant races will become symmetrical as the present bulges at the base move up, and are replaced by even broader-bases.

NOTA

DOKUMEN ASAL

TIDAK TERANG.

NOTE

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FIGURE 2.1

AGE PYRAMIDS, BY RACE, 1960

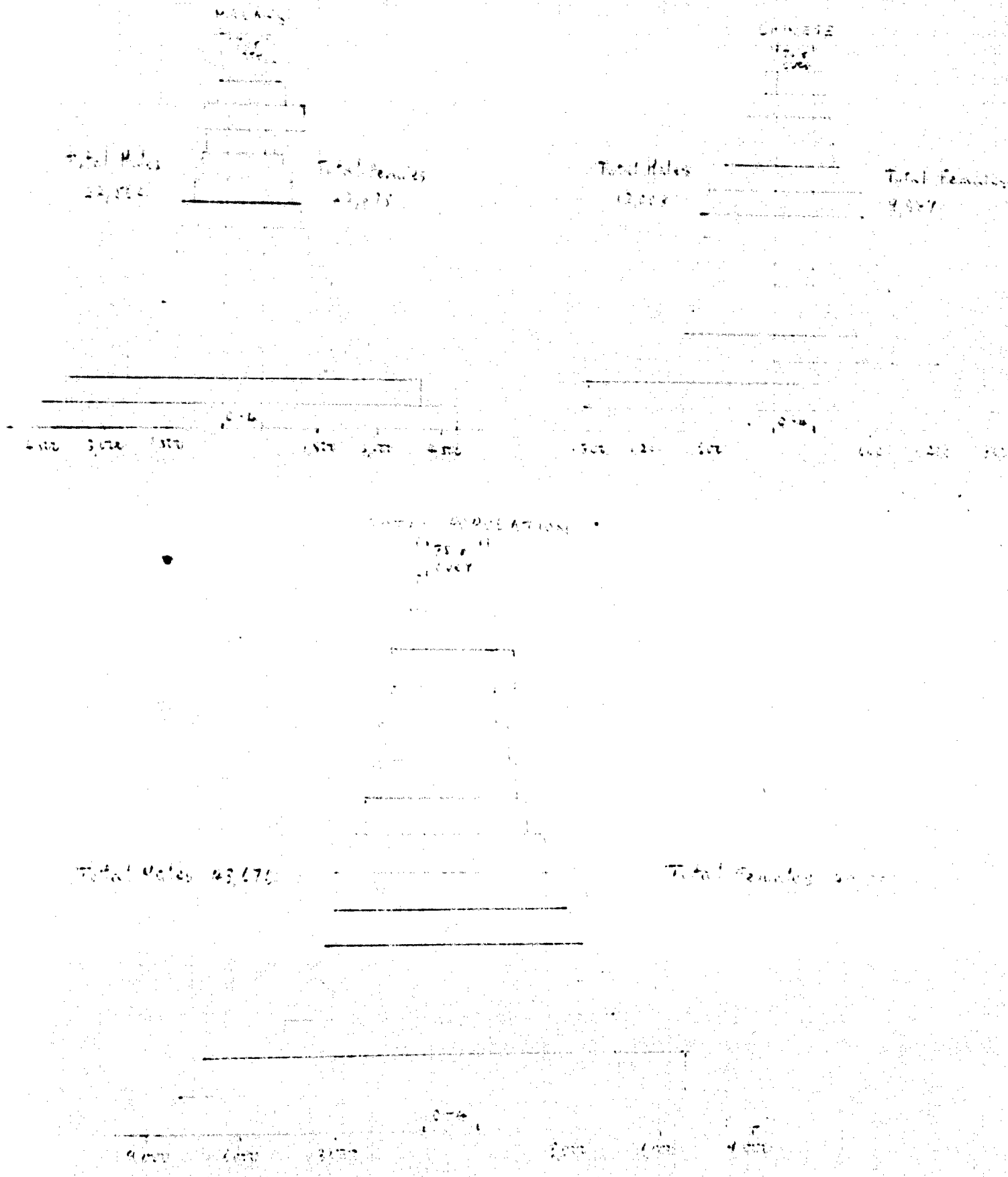
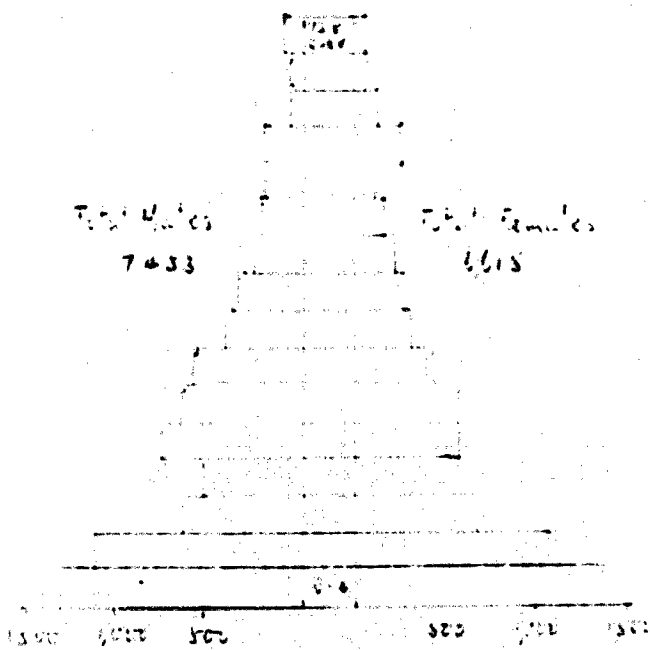
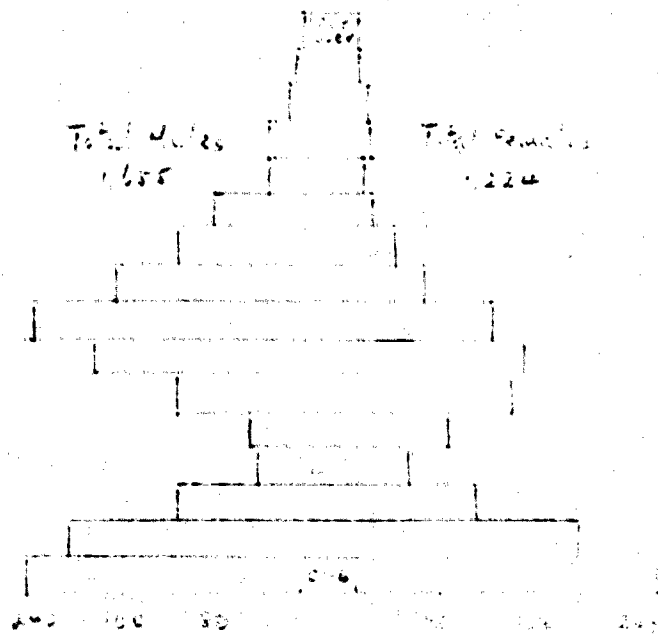


FIGURE 2.1 (Contd.)

OTHER INDIGENOUS



OTHERS



CHAPTER III

MIGRATION

Migration is one of the two sources of change in the population of a country, (the other is natural increase) and can be divided into two types. The more familiar one is international migration, which we have so far been talking about. The other type is internal migration, migration which does not take place across national boundaries but within a country. Information on international migration can either be obtained from Censuses (birthplace statistics) or from registration data (transit statistics). Data for internal migration is usually obtainable from Censuses only. In the 1930s, there were no legislation regulating the volume of immigration, the only requirement being that Chinese must enter the State from Singapore so that in fact a quota was placed on Chinese by the immigration laws of the Colony. At present, however, immigration, except for employment or business is strictly controlled by the Immigration Department, in co-operation with the Controller of Labour. Let us first deal with international migration.

International Migration - Birthplace Statistics

One method of discovering the movement of people into the State is to trace their birthplace. Before employing the method, it may be advisable to make qualifications regarding the efficacy of birthplace statistics as a tool of analysis.

"The belief that deductions can be made from birthplace statistics as to the tendency to 'colonization' or permanent settlement by immigrant peoples is fallacious ... (as) it may be only seasonal".¹

This aside, a rough idea of the extent of migration can still be obtained.

Table 3.1 shows the number of persons born outside Brunei. Only about 10% of the Malays are born outside Brunei. The Other Indonesians have a higher percentage. The immigrant races, Chinese and Others, have, as is to be expected, a high percentage of their population born outside Brunei. The Chinese, in addition, constitutes the largest group born outside Brunei, and number 10,557.

In terms of sex distribution, one significant fact is that a larger proportion of males are born outside the country than females.

¹Wieland, op. cit., p. 66.

TABLE 3.1
TOTAL POPULATION BORN OUTSIDE BRUNEI,
1960

Race	Number			Percentage of Total Population		
	Persons	Male	Female	Persons	Male	Female
Malay	4,328	2,220	2,108	9.6	9.8	9.3
Other Indigenous	3,374	2,202	1,172	24.0	29.5	17.7
Chinese	10,853	6,295	4,558	49.8	52.3	46.7
Other	2,153	1,298	855	75.0	78.4	70.3
All Races	20,713	11,935	8,778	24.7	27.5	21.7

For example, 52.3% of the male Chinese population is born outside Brunei, while the corresponding figure for females is only 46.3%. This characteristic is present among all the races, and confirms the argument that migration is sex-selective.

TABLE 3.2
PERCENT DISTRIBUTION OF TOTAL POPULATION
BY BIRTHPLACE, 1921-1960

Country or State of Birth	1921	1931	1947	1960
Brunei	90.0	86.1	77.9	75.3
Sarawak and North Borneo	2.7	3.7	11.3	14.4
Singapore and Malaya	1.6	1.3	0.7	1.7
Indonesia	1.3	0.6	0.6	0.3
China (Including H.K. and Taiwan)	4.1	6.1	7.8	6.3
Other Countries	0.3	2.2	1.7	2.0
All Countries	100.0	100.0	100.0	100.0

Table 3.2 traces the percent distribution of the population of Brunei by birthplace from 1921 to 1960. There was no information on birthplace in the 1911 Census. As is only to be expected, by far the largest percentage of the population was, and still is, born within Brunei, and throughout the years under discussion, this figure has kept above 75%. However, whereas in 1921, no less than 90.0% of the population are born within Brunei, by 1960, this percentage has significantly dropped by 14.7% to 75.3%. The role of immigration as a cause of this need hardly be explained further. On the other hand, the proportion of people born in the neighbouring Borneo states of Sarawak and North Borneo have been increasing throughout the years, from 2.7% in 1921 to 11.5% in 1947 and 14.4% in 1960. This is due to immigration, especially of Indigenous peoples, from the neighbouring states, to work in the oilfield. People born in the Malay States and Singapore have always been few, and the percentage fluctuates considerably, ranging from 0.7% in 1947 to 1.7% in 1960. Likewise, the percentage of people born in Indonesia is small, and declining. All those people reported as being born in China (here taken to include Taiwan and Hong Kong) are Chinese. From a small beginning of 4.1% in 1921, the percentage of population born in China increased to a record 7.2% in 1947, and as large scale Chinese immigration slackened in the 1950s, settled down to 6.3% in 1960. Those born in other countries comprise only a small proportion of total population, and are usually from the "Others" group.

Table 3.3 analyses the population of Brunei by birthplace and race. The overall distribution by birthplace has already been described (Table 3.2). Among the Malays, virtually all the people are born in British Borneo, 90.4% being from Brunei and 8.1% from Sarawak and North Borneo. Only 0.1% of the Malays are born in Indonesia. A greater percentage of people among the Other Indigenous races are born in Sarawak and North Borneo. This confirms the contention that a considerable proportion of these indigenous people have crossed the borders into Brunei. Like the Malays, virtually none of the Other Indigenous are born outside British Borneo. The Chinese, being an immigrant race basically, have only half the population born within Brunei. Considerable numbers are born in Sarawak and North Borneo and China (22.4% and 24.2% respectively), despite a slackening of Chinese immigration in more recent years. The large percentage born in the neighbouring states is perhaps a recent development, being the result of migration of Chinese who have been attracted by the prospect of work in Brunei at the cost of only a short journey. One second point to note regarding the Chinese is that had place of birth been analysed by age, it would have been found that in the younger ages, a larger proportion is locally born, while a larger percentage of the older population is born elsewhere. Finally, Chinese immigration from neighbouring states is a one way traffic; only 0.3% of the Chinese population of Sarawak is born in Brunei.² Most of the "Others" (chiefly Europeans and Indians) are, understandably, born outside Brunei (55.5%). Considerable proportions (5 to 6%) are born in Sarawak, North Borneo, Singapore, Malaya and Indonesia.

²Jones, L.W., "Sarawak: Report on the Census of Population, 1960" (Kuching, Government Printing Office, 1962), p. 99.

TABLE 3.3
PERCENT DISTRIBUTION OF TOTAL POPULATION BY
BIRTHPLACE AND RACE, 1960

Country/State of Birth	All Races	Malay	Other Indigenous	Chinese	Others
Brunei	75.3	90.4	76.0	50.2	25.0
Sarawak and North Borneo	14.4	8.1	23.9	22.4	6.8
Singapore and Malaya	1.7	1.3		2.9	6.4
Indonesia	0.3	0.1	0.1	0.2	5.8
China	6.3	0.0		24.2	0.5
Other Countries	2.0	0.1		0.1	55.5
All Countries	100.0	100.0	100.0	100.0	100.0

International Migration - Transit Statistics

Transit statistics are essentially records of the number of persons entering and leaving a state. As an indicator of migration, these have several distinct advantages over birthplace statistics. In the first place, as transit statistics are collected continuously year by year, they show an unbroken flow or movement of people into and out of the state, whereas with birthplace statistics, one cannot, for example, tell what the position was like in 1937, since censuses were taken in Brunei in 1931 and 1947. Secondly, while birthplace statistics do not show emigration, transit statistics show movement of people in both directions.

On the other hand, transit statistics are not very faithfully kept, except at international boundaries, and even so, they are usually by-products of administration. Hence, there is some doubt as to their accuracy. Further, most of the characteristics of migrant groups change with time; transit statistics are not informative regarding these developments.³

Let us trace the pattern of migration in Brunei over the years 1936-1963. Table 3.4 shows migration of the various races since 1936. The years 1936 to 1953 cover three phases of the history of immigration in Brunei. The first phase covers the years 1936 to 1938, years which saw the expansion of the oil industry since its establishment in 1929. With the exception of 1936, when most of the races registered net loss of migrants, the years witnessed fairly large numbers of immigrants. The most numerous immigrants were the Indigenous, who, presumably moved in from Sarawak; the Chinese were next, and their immigrating numbers remained fairly constant. The immediate postwar years 1946 to 1948 constituted the second phase under consideration. These were years of rehabilitation, of reconstruction from the ruins left behind by the war. In 1946, immigration was small, and entirely Chinese. By 1948, however, the state had recovered to a large extent, and immigration, in this sense, a measurement of the State's prosperity, recovered to the prewar level of approximately 1,300. Another thing to note is that Chinese had replaced the Indigenous as the largest immigrant group. In 1948, the number of immigrants in the "Others" group was almost as numerous as the number of Chinese. The third phase stretches from 1954 to 1963. This marked the further expansion of the oilfield. Immigration reached a peak of 2,377 persons in 1956, and then declined until a net loss of 1,434 persons occurred in 1961, after which immigration was once more stepped up, until a record of 4,875 persons was registered in 1963. Throughout these years, there was a net gain of Malays (except in 1961), and between 1957 and 1962, these actually outnumbered Chinese immigrants. The number of immigrant "Other Indigenous" was smaller and much less consistent. In 3 of the 10 years considered, losses were recorded, but the peculiar fact was that in 1961, when all other races registered net losses through emigration, this racial group had gained by 107 persons. The Chinese, like the Malays, had recorded net gains every

³A more detailed evaluation is given in Barclay, *op. cit.*,

TABLE 3.4
NET MIGRANTS BY RACE, 1936-1963

Year	All Races	Malay	Other Indigenous	Chinese	Others
1936	- 475		- 346	1	- 130
1937	1,247		605	489	153
1938	1,307		922	454	- 69
1946	550		- 2	552	-
1948	1,302		131	612	559
1954	1,764	341	- 9	1,067	365
1955	2,290	880	256	800	274
1956	2,837	639	16	1,604	623
1957	992	442	- 359	369	540
1958	2,143	1,751	- 382	142	632
1959	1,643	1,197	27	490	- 71
1960	1,538	894	418	335	- 109
1961	- 1,434	- 705	107	- 644	- 247
1962	3,345	1,519	24	1,413	389
1963	4,875	1,126	442	2,893	409

year except 1961, and in 1954, 1956 and 1963, the number of immigrant Chinese outnumbered their Malay counterparts more than twice. The number of immigrants among other races was considerable, but in 3 years, losses were recorded.

TABLE 3.5
CHINESE IMMIGRATION, BY SEX, 1954-1963

Year	Total	Male	Female
1954	1,067	653	414
1955	890	585	295
1959	490	571	- 81
1960	335	76	259
1961	- 644	572	- 1,216
1962	1,413	1,294	119
1963	2,893	1,973	925

It has been mentioned that migration is sex-selective and in favour of men. This same characteristic is illustrated in Table 3.5 for the Chinese. With the exception of 1950, the number of net gains among men is overwhelmingly greater than that for women. This is further strengthened by the fact that in 1951, there was actually a net gain among men of the magnitude of 572, but this gain was more than counterbalanced by a net loss of 1,215 Chinese women.

It may be noted in passing that the crude figures from which the above tables have been compiled of people entering and leaving the State do seem unduly large. This is because they included those who have travelled in and out of the state going to Labuan and Sarawak and vice versa. In the sense that people may travel in and out of the state several times a year, these figures may not, strictly speaking, be correct, but the net number of persons would not have been affected.⁴

Internal Migration - Census Statistics

"Population (in Brunei) is ... much more fluid than in more highly developed societies, so that distributions and densities are essentially dynamic. There is a constant quest for paid employment ... Group changes in the country tended to be rapid".⁵

The above quotation suggests the presence of internal migration. This is shown in Table 3.6. Before proceeding to interpret the Table, however, some remarks appear relevant. A table such as this has serious defects. It neglects the number of times the persons have moved; nor does it take account of death as a factor. The figures refer to lifetime migration, so we shall not be able to discover when a person has moved. The permanence of stay, likewise, remains unknown, while many people may have forgotten their district of birth. Subject to these qualifications, however, the trends indicated in the Table are generally correct. The greatest gain is in Belait district, where there is a constant flow into the district of persons seeking employment in the oilfield. These internal migrants come from the districts of Tutong, which in any case is adjacent, and Brunei Rural and Municipal. There is also a gain, albeit small, of 113 persons in Temburong, where land is available for development. It has also been argued that the development of the timber industry, and to a lesser extent rubber estates and new wet padi areas are further stimuli to internal movement.⁶

⁴State of Brunei, "Annual Report, 1963" (Kuala Belait, Brunei Press, 1965), p. 20.

⁵Lee, Y.L., "The Population of British Borneo", Population Studies, Vol. XV, 1962, p. 237.

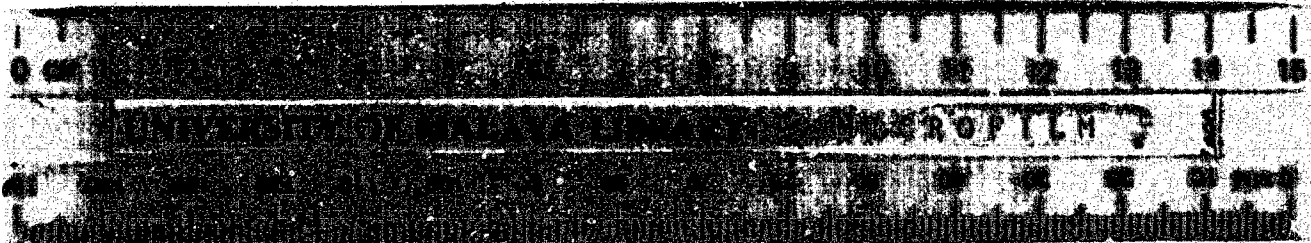
⁶Country Survey Series, "North Borneo, Brunei, Sarawak", (New Haven, 1956), p. 30.

TABLE 3.6

INDIGENOUS POPULATION BY DISTRICT OF BIRTH AND OF ENUMERATION, 1960

District	Born in the District	Born in the District but enumerated elsewhere	Born elsewhere but enumerated in the District	Gain or Loss
Bolait	6,814	604	4,007	+3,403
Tutong	10,154	1,469	652	- 816
Trunei Rural • Municipal	51,614	3,811	1,111	-2,700
Tenburong	2,903	347	460	113
Total	51,501	6,230	6,230	-

but it is doubtful if these factors are significant where Trunei is concerned, especially in comparison with the attraction of the oilfields. Doubtlessly, they are more important in Sarawak and North Borneo.



CHAPTER IV

MARITAL STATUS

Data on marital status is collected for various purposes. It is, firstly, a factor influencing population growth - the influence of the failure to marry, of the age of marriage, prevalence of widowhood and divorce upon the reproductive capacity of the population in reproductive ages are all of demographic importance. In addition, a study of marital status statistics helps in the understanding of social and medical problems connected with bachelorhood, widowhood, etc.¹

As far as Brunei is concerned, statistics on marital status had been first collected in the census of 1921. However, both the censuses of 1921 and 1931 showed only tabulations for "married" and "single", no mention whatsoever being made of "widowed" and "divorced". It was not until the 1947 census that a division into the familiar categories was undertaken.

The Census of 1960 defines each of the status as follows:

- 1) Single - a person who has never married.
- 2) Married - a person who is married and whose spouse is alive. (It) means what the individual thinks it to be and not what law or custom demands.
- 3) Widowed - a person whose spouse is dead and who has not remarried.
- 4) Divorced - a person who is divorced and has not remarried.²

Despite these simple definitions, problems arose once these were translated into Malay. For example, "janda", used normally to denote widowed can also mean divorced. "Bujang", an unmarried person, can also be taken to mean divorced. Since a large segment of the population (especially the indigenous) can be reached only through the Malay medium, it is not difficult to envisage the problems involved. The large proportion of primitive indigenous peoples in the population of Brunei presents problems of a different kind. Coakes, in the 1947 census report, noted that there was uncertainty in the minds of these

¹United Nations, "Handbook of Population Census Methods, Vol. 1" (New York, U.N. Statistics Office, 1953), p. 46.

²Jones, *op. cit.*, p. 37.

peoples regarding the real meaning of marriage. A good number of the primitive races practice the custom of cohabitation or trial selection, so that those involved would find themselves lost as to what to report.³ Under Muslim Law, a man must renounce his marriage three times before he can divorce his wife. If such a man has only done so once, he may consider himself divorced, but his wife will still claim to be married. Further, there is a tendency among unmarried mothers to declare themselves married, thus resulting in an exaggeration of numbers "married", and an understatement of those "single". A small number of males away from home would regard themselves "single", even though they may have wives at home. Jones adds,

"There may well be some reluctance among Chinese women, particularly the older ones, to admit that they are divorced, so that they would probably say instead that they are widowed. Secondly, even among the Chinese there may still be some doubt concerning betrothal and marriage ..."⁴

TABLE 4.1

PERCENT DISTRIBUTION OF TOTAL POPULATION AGED TEN AND OVER, BY MARITAL STATUS, 1921-1960

Marital Status	1921	1931	1947	1960
Single	40.9	52.5	38.0	38.3
Married			51.5	55.1
Widowed	59.1	47.5	8.6	5.3
Divorced			1.9	1.3
Total	100.0	100.0	100.0	100.0

Table 4.1 shows the percentage of persons in the four categories of marital status over the years 1921-1960. It is clear from the table that the figures for 1921 and 1931 are hardly of any use. Besides being of limited comparability, the reliability of the data can be precisely the reason for not dividing the data into the four customary categories.⁵ Consequently, there is little to justify the large change

³Noakes, op. cit., p. 71.

⁴Jones, op. cit., p. 38.

⁵Vieland, op. cit., p. 55.

in the percentages of "single" and "married" between 1921 and 1931. There is a fair correspondence in the proportions in each category in the censuses of 1947 and 1960. There is a slight increase in the number of single persons, possibly because of the larger proportion of children. The percentage of married persons have increased from 51.5% to 55.1%, the smaller figure in 1947 being perhaps due to the dislocations of the war. For the same reason, the proportion of widowed persons have declined since 1947, when they accounted for 8.6% of the total population aged 10 and over. Very few people report themselves as divorced. One reason for this is the disapproval of Asian society towards divorce. Another is the institution of plural marriages prevalent among Muslims and Chinese, which tend to keep the percentage of divorce small.

Table 4.2 shows the distribution of the total population above age 10 by marital status and sex. There is a difference between the numbers of married males and females. This is surprising in view of the fact that polygamy is practiced by many people. One possible explanation is the presence of married men who have come to the country as immigrants to work temporarily, and who have left their families at home. The number of single men to single women is approximately in the ratio 3 to 2. This, again, is due to the immigration of large numbers of single men into the country. Markedly few men are reported as widowed; there are three times as many women. The same characteristic is found in the 1960 Census of Sarawak. This leads to some suspicion that there is a bias in the statistics - e.g., preference among elderly women to declare themselves widowed.⁶

In terms of percentages, a much larger proportion of males are reported to be single (43.0%) as against females (33.0%). There is, however, a compensating predominance in the percentage of married and widowed women. The percentages of divorced among men and women are small and approximately equal.

The next logical step is to analyze marital status for each race, distinguishing differences between them. This is illustrated in Table 4.3. The percentage distribution of the Malays conform fairly well with the percentage distribution of the population as a whole, except that there is a slightly smaller proportion of single persons and of more married persons among the Malays. The Other Indigenous races conform to the general pattern too, but they have an even larger proportion of married persons, and smaller percentage of single persons. The distribution between the 4 categories among the Chinese is different. There is, for reasons given above, a larger proportion of single persons (43.9% as against 38.3% for the whole population). For the same reason, the proportion of married persons has been depressed to slightly more than half. The proportions of widowed and divorced Chinese are much smaller than the corresponding figures for the other races, the "Others" group excepted. The percentages for the "Others" appear a direct

⁶Jones, *op. cit.*, p. 33, see also Jones, L.W., "Sarawak Report on the Census of Population 1960", p. 64.

TABLE 4.2

TOTAL POPULATION AGED TEN AND OVER,
BY MARITAL STATUS AND SEX, 1960

Marital Status	Number			Percentage		
	Persons	Male	Female	Persons	Male	Female
Single	20,579	12,269	8,311	38.3	45.0	33.0
Married	29,593	15,155	14,433	55.1	53.1	57.4
Widowed	2,832	770	2,062	5.3	2.7	8.2
Divorced	689	345	344	1.3	1.2	1.4
Total	53,693	28,558	25,155	100.0	100.0	100.0

TABLE 4.3

PERCENT DISTRIBUTION OF TOTAL POPULATION
AGED TEN AND OVER BY MARITAL
STATUS AND RACE, 1960

Marital Status	All Races	Malay	Other Indigenous	Chinese	Others
Single	38.3	37.5	34.3	43.9	26.7
Married	55.1	55.2	57.3	51.6	70.8
Widowed	5.3	6.2	5.3	3.9	1.9
Divorced	1.3	1.1	3.1	0.6	0.6
Total	100.0	100.0	100.0	100.0	100.0

contradiction of what one would expect of an immigrant group, like the Chinese. A glance at the age pyramid of this ("Others") group, however, reveals the answer. There are few children, and in a group with a greater proportion of adults, it is natural that there are fewer single persons. Among the "Others", the percentages of widowed and divorced persons are very small indeed, in fact, the smallest of all the 4 race groups.

TABLE 4.4

ALL RACES - MARRIED MALES AND
FEMALES, 1947 AND 1960

Race	Year	Number of Married Males	Number of Married Females	Number of Married Females per 1,000 Married Males
Malay	1947	2,891	2,877	995
	1960	7,644	7,777	1,017
Other Indigenous	1947	2,530	2,791	1,103
	1960	2,534	2,740	1,091
Chinese	1947	1,875	1,269	677
	1960	4,120	3,393	824
Others	1947	464	150	323
	1960	857	528	616
All Races	1947	7,760	7,097	913
	1960	15,155	14,438	953
North Borneo - Dusun	1960	28,318	31,036	1,095
Sarawak - Indigenous	1960	98,967	103,562	1,046
Sarawak - Chinese	1960	36,464	34,797	954
Singapore - Chinese	1957	177,756	179,604	1,010

With the exception of Malays in 1947, there has been a consistent excess of married females over married males among the Malays and Indigenous people. (Table 4.4). This holds true not only in Brunei, but also in Sarawak and North Borneo as well. Plural marriages may be a factor, while it is also possible that there is a tendency for women (especially unmarried mothers) to declare themselves married when in fact they are not. As far as the immigrant races are concerned, the table shows a distinct deficiency of females. For example, with the "Others", there were only 323 married females for every 1,000 married males. The tendency, fortunately, is for this disparity to diminish as years go by. Thus, for the "Others", the

figure has risen to 616 married females per 1,000 males by 1960. There is evidence, however, to support the suggestion that even with immigrant races, a stable population, given time, will show more married women than men. Singapore is a good example.

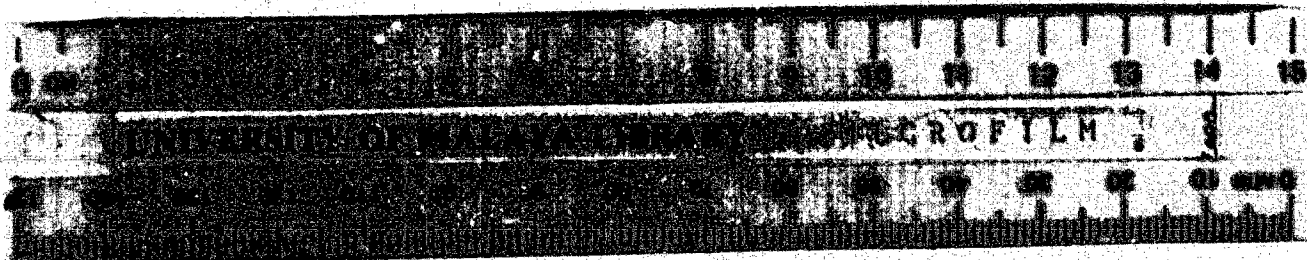
TABLE 4.5

PERCENT DISTRIBUTION OF TOTAL POPULATION AGED 15
AND OVER BY MARITAL STATUS AND AGE, 1960

Age Group	Total	Single	Married	Widowed	Divorced
Males:-					
15 - 19	100.0	97.4	2.3	0.1	0.2
20 - 24	100.0	72.5	26.8	0.1	0.6
25 - 34	100.0	25.3	72.3	0.8	1.6
35 - 44	100.0	6.6	90.3	1.7	1.4
45 - 54	100.0	4.8	88.8	4.4	2.0
50 & Over	100.0	5.0	78.1	14.1	2.6
15 & Over	100.0	32.2	63.2	3.2	1.4
All Ages	100.0	43.0	53.1	2.7	1.2
Females:-					
15 - 19	100.0	65.2	33.6	0.2	1.0
20 - 24	100.0	24.2	73.8	0.6	1.4
25 - 34	100.0	8.7	88.4	1.5	1.3
35 - 44	100.0	6.7	83.7	5.5	1.9
45 - 54	100.0	5.5	76.7	15.6	2.2
55 & Over	100.0	5.9	43.3	48.0	2.7
15 & Over	100.0	19.0	69.4	9.9	1.7
All Ages	100.0	33.0	57.4	8.2	1.4

If we analyze the total population over age 10 in terms of marital status, age and sex (Table 4.5), the first thing we notice would be that women marry earlier than men. Only 2.3% of males in the age group 15 - 19 are married, but the corresponding percentage for women is 33.6%. Above the age of 25, only 8.7% of the women remain single, while for men, only above the age of 35 does the same

percentage for men drop below 10%. As a rule, percentages of those widowed for each age group are smaller among men than among women. For instance, for those aged 55 and over, nearly half the women (43%) are widowed, while only 14.1% of men declared themselves to be so. The reason, as has been mentioned, is that even women who have been divorced prefer to call themselves widowed. The percentages of persons of both sexes and for all age groups are small, but those among the females are very slightly larger. There seems to be a prejudice regarding the idea, especially in Asian societies. Finally, we compare percentages for those aged 15 and over and those of all ages. Quite obviously, with the exception of single persons, the percentages for all ages are smaller than those for persons aged 15 and over. It is only reasonable to expect that virtually all those under age 15 are single. These remarks apply for both sexes.



CHAPTER V

FERTILITY AND MORTALITY

Fertility and mortality are the determinants of natural increase, and together, constitute one of the two factors influencing population structure and growth. Registration data or vital statistics are the main source of information, but the 1947 and 1960 Censuses of Brunei too provide useful supplementary data under the headings "fertility" and "maternity" respectively.

Fertility

"Fertility" denotes the actual level of performance in a population, and is measured as the frequency of births in that population. It must, therefore, be distinguished from "fecundity", the potential level of performance, or the physical capacity to bear children.

Problems arise with regards to both census data and vital statistics. The root causes are illiteracy and ignorance. In general, more primitive peoples do not favour giving information so personal as this, as it touches upon local customs, female modesty, inhibitions and prejudices. Some Borneo peoples are forbidden by custom to refer to the infant until he has been named. Others, among them the Chinese, are unwilling to speak of children who had died. Still others tended to include adopted children, so that figures may be overstated. Problems of definition are once more present. What, for instance, is a "live-birth"? Finally, surprising though it seems,

"... women, particularly older women, are capable of forgetting some of the children they have borne, more particularly perhaps children who have since died".¹

As far as registration statistics are concerned, despite the good progress made, and despite the fact that registration of births and deaths is compulsory under the Births and Deaths Registration Enactment, 1957, the validity of these figures is still open to doubt.² The incentives of welfare services, however, are working towards better birth registration, and it is hoped that it will become complete not too far in the future.

¹Jones, op. cit., p. 42.

²Annual Report, 1959, p. 3.

TABLE 5.1
CRUDE BIRTH RATES, 1935-1963

Year	Crude Birth Rate (a)	Year	Crude Birth Rate
1935	43.7	1954	56.9
1936	42.7	1955	57.0
1937	40.1	1956	59.3
1938	37.8	1957	45.2
1946	17.5	1958	56.8
1948	40.5	1959	50.8
1950	51.4	1960	49.9
1951	59.6	1961	51.2
1952	56.2	1962	43.6
1953	53.6	1963	35.8

(a) Number of registered live births per 1,000 population.

Let us deal with vital statistics first. From Table 5.1, we obtain a history of births in the state from 1935 to the present day. Three phases can be distinguished. The first phase coincides with the prewar years, 1935-1938. Birth Rates, with the exception of 1938, were fairly high, and more than 40 per thousand. The birth rates show, however, a downward trend. In 1935 it was about 44 per 1,000, but by 1938, had fallen to about 38 per 1,000. One possible answer may be the increasing stream of immigrants, resulting in a larger population but not a greater number of births (bearing in mind the fact that immigrants are chiefly males). The next phase spans the immediate postwar years. In 1946, the birth rate declined to a meagre 17.5 per 1,000, and the Annual Report of the same year remarked:

"The effect of malnutrition of the war years is a new factor in the lowered vitality of the mothers".³

³Peel, W.J., "Annual Report on Brunei for the year 1946". (Kuala Lumpur, Malayan Union Government Press, 1948), p. 16.

Recovery was fairly rapid, however, and by 1948, the birth rate once more attained the prewar level. There is a possibility that this rise in the birth rate is in fact the result of a temporary "baby boom" characteristic of immediate post war years,⁴ though no conclusive evidence is forthcoming. On the other hand, it is almost certain that this increase is part of a longer term increase, common in young underdeveloped countries. By 1950, the birth rate has risen to 51 per 1,000. Throughout the third phase, 1950-1953, the birth rate remained high, keeping above 50 per 1,000 in most years. The years 1962 and 1963 saw, however, a significant fall in the birth rate.

It may be mentioned in passing that there appears to have been some over-registration of births as compared with data obtained from the 1960 census. (Appendix II). A plausible explanation is that women enter the state from outside to have their children since the state has well developed medical facilities, and after that return with the children to their own places of residence.

From the 1960 Census, we obtain data on the average number of children born alive for 1947 and 1960. (Table 5.2). For the population as a whole, the average number of children for each age group is higher in 1960 than in 1947. This increase is most marked among the Malays, and is present to some extent among the Other Indigenous, except in the age group 35 - 39 and 40 - 44. This same trend is evident in the case of the Chinese, and again exceptions occur between the ages 35 - 44. With the others, average number of children has declined significantly for all age groups.

Examining the figures for 1960 alone, we notice that among the Malays, the average number of children born alive per mother rises with increasing age. Conformation to this pattern is not, however, forthcoming from Other Indigenous peoples and Chinese. With those groups, the average number of children begins to fall after the age of 49. Memory failure among older people regarding the number of their children is probably a contributory factor. The figures for the "Others" show considerable fluctuation, but generally increase with rising age.

Mortality

Even as early as 1957, it had been claimed that the registration of deaths was fairly complete, except in the remote areas.⁵

⁴See United Nations, "Recent Trends in Fertility in Industrialized Countries", Population Studies, No. 27, (New York, 1958). See also "Natural Increase" later in this chapter.

⁵Black, J.C., "Annual Report on the Social and Economic Progress of the People of Malaya for the year 1957", (Singapore, Government Printing Office, 1958), p. 14.

TABLE 5.2

AVERAGE NUMBER OF CHILDREN BORN ALIVE PER
MOTHER, 1947 AND 1960

Age Group	All Races	Kalay	Other Indigenous	Chinese	Others
1947					
15 - 19	1.4	1.5	1.4	1.3	1.4
20 - 24	2.2	2.3	2.3	1.9	2.2
25 - 29	3.2	3.1	3.4	2.9	3.2
30 - 34	4.4	4.4	4.6	4.2	4.4
35 - 39	5.9	5.1	7.0	5.6	5.9
40 - 44	5.8	5.3	6.4	5.7	5.8
15 - 44	4.0	3.7	4.4	3.9	4.0
1960					
15 - 19	1.6	1.7	1.5	1.3	1.7
20 - 24	2.7	2.8	2.5	2.2	2.1
25 - 29	4.0	4.4	3.9	3.3	2.6
30 - 34	5.0	5.6	4.7	4.6	2.9
35 - 39	5.7	6.2	6.2	5.1	3.7
40 - 44	5.9	6.4	6.2	5.4	3.2
45 - 49	6.3	6.7	6.7	5.6	
50 - 54	6.0	6.4	6.7	5.1	
55 - 59	6.1	6.6	6.2	5.0	Not signi- ficant
60 - 64	6.5	6.9	6.5	4.3	
65 - 69	6.9	7.2	7.2	5.1	
70 & Over	6.3	7.1	5.6	4.2	
15 - 44	4.3	4.6	4.1	4.1	2.9
45 & Over	6.3	6.8	6.5	5.1	Not signi- ficant

It now appears that this statement is over-optimistic. The Annual Report of 1960 admitted that, besides considerable delay in reporting,

"... there is a lack of medical certification concerning deaths in the state and about 75% of the deaths were not recorded by registered medical practitioners ... An accurate diagnosis of the causes of deaths amongst cases recorded by Deputy Registrars in outlying areas is not possible as statistics are kept by pangkulus (headmen) and police".⁶

Table 5.3 traces the development of mortality between the years 1935 and 1963. During the prowar years, the crude death rate fluctuated, remaining above 20 per 1,000 population, that for 1936 being highest (approximately 34 per 1,000). Brunei was occupied by the Japanese in 1941, and no data was obtained between 1942 and 1945. Death registration was re-introduced in 1946. One would have expected that the starvation and malnutrition after the war would take their toll of human life. The opposite, however, has come to pass, and the crude death rate for 1946 dropped to 9.8 per 1,000. Inadequate registration as a result of administrative chaos rather than a real fall in the number of deaths appears to be the cause of this phenomenon. This is further borne out by the fact that the rate for 1948 rose, despite rapid rehabilitation and reconstruction, once again to 21.6 per 1,000. In 1950, the crude death rate fell below 20 for the first time, and from that year, the rate declined gradually but surely. By 1959, the crude death rate for Brunei of 11.50 per 1,000 population compares favourably with corresponding figures for Malaya of 12.40 (1957) and for the United Kingdom of 11.70 (1958). During the years 1961-1963, the fall in death rate was particularly rapid, the figure for 1963 being a record low of 6.77 per 1,000 persons. Much credit for this goes to better medical and health facilities in the state, which today possess the best medical services in Borneo. At the present rate of development, there is every possibility that the crude death rate will diminish further in future.

Infant Mortality

The study of infant mortality is important in two respects. Firstly, it takes a heavy toll of life, and since infants form a large part of the population, even a lower infant mortality rate can imply a substantial number of infant deaths. Secondly, basic records are vague and not always reliable.

If death registration is incomplete, it is even more so with registration of infant deaths, especially in relatively remote areas. Babies who die very soon after birth may never be registered, either as births or as deaths. Existing data are consequently most certainly under-stated.

⁶State of Brunei, "Annual Report, 1960". (Kuala Belait, Brunei Press, 1965), pp. 6-7.

TABLE 5.3

CRUDE DEATH RATES, 1935-1963

Year	Crude Death Rate (a)	Year	Crude Death Rate
1935	23.8	1954	13.1
1936	34.0	1955	13.9
1937	21.5	1956	13.2
1938	22.0	1957	15.1
1946	9.8	1958	11.8
1948	21.6	1959	11.3
1950	19.2	1960	11.1
1951	15.0	1961	7.2
1952	17.3	1962	6.9
1953	14.9	1963	6.8

(a) Number of registered deaths per 1,000 population.

Before the war, infant mortality rates (or, number of registered deaths under age one per 1,000 live-births) were fairly high. (Table 5.4). For example, the infant mortality rate was 355 in 1934. Between 1934 and 1938, the rate fluctuated considerably, but kept above 200. Malnutrition and a poor diet among mothers were important factors, while disease took its toll. There is strong evidence to support the view that if registration was complete, these figures would have been even higher.⁷ In 1936, infant mortality rate was given as 352 per mille live births,⁷ but in Drunei district, where registration was complete, it

⁷ A live birth is defined thus:

"Live birth is the complete expulsion or extraction from its mother of a production of conception, irrespective of the duration of pregnancy, which, after such separation, breathes or shows any other evidence of life ... each product of such a birth is considered live born".

Logan, W.P.D., "The Measurement of Infant Mortality", Population Bulletin of the United Nations, No. 3, Oct. 1953, p. 32.

TABLE 5.4

INFANT MORTALITY, 1935-1963

Year	Infant Mortality Rate (a)	Year	Infant Mortality Rate
1934	355	1953	113
1935	210	1954	94
1936	352	1955	102
1937	219	1956	103
1938	210	1957	136
1946	110	1958	89
1947	133	1959	93
1948	139	1960	69
1949	128	1961	48
1950	138	1962	51
1951	81	1963	55
1952	104		

(a) Number of registered deaths below age one per 1,000 live births.

was 460 per milk live-births.⁸ By 1946, however, the rate had fallen to 110 per milk live-births. One reason for this is the erosion of old customs and superstitious. Another is better diet - addition of extra vegetables and increased consumption of polished rice, resulting in less beri-beri among the population. Much credit, too must go to the newly established. Infant Welfare and Maternity Clinics, especially during 1947 and 1948. Infant mortality continued to improve. Even as late as 1959, it was reported that there was a persistent reluctance on the part of mothers, especially Malays, to abandon traditional practices associated with child-birth and infant care. It was further stated that the authorities,

⁸Black, J.G., "Annual Report on the Social and Economic Progress of the People of Brunei for the year 1936", (Singapore, Government Printing Office, 1937), p. 3.

"are probably more hindered in their work by the inflexibility of mind and habit of the older generations who exert a powerful influence in each family, than by reluctance to change on the part of the younger generations".⁹

There was a further decline of the infant mortality rate between 1960 and 1963, a result, no doubt, of the increasing penetration of public health services into the rural areas. Throughout the period, there was a high incidence of premature live-births; in 1962, 36 out of a total of 202 babies died during the early part of their life.

The improvement of public health is also shown by the fall of the Maternity Mortality Rate (number of maternal deaths per 1,000 live births). (Table 5.5).¹⁰

TABLE 5.5

MATERNAL MORTALITY, 1959-1963

Year	Number of Maternal Deaths	Maternal Mortality Rate (a)
1959	-	4.00
1960	20	4.80
1961	12	2.76
1962	12	2.99
1963	14	3.98

(a) Number of maternal deaths associated with pregnancy and delivery per 1,000 live births.

⁹ Annual Report, 1959, p. 4.

¹⁰ Strictly speaking, an even better indicator of health conditions is the Neonatal Mortality Rate, the number of infant deaths under 4 weeks or 28 days per 1,000 live-births in a particular year. Unfortunately, no statistics are available for use. For the same reason, the construction of Age Specific Mortality Rates has not been possible.

Natural Increase

TABLE 5.6

NATURAL INCREASE, 1935-1963

Year	Population	Number of Live Births	Number of Deaths	Natural Increase	Rate of Natural Increase ^(a)
1935	33,732	1,475	802	673	19.9
1936	34,016	1,454	1,155	299	8.8
1937	35,963	1,472	772	700	28.6
1938	37,868	1,431	833	598	15.8
1946	48,034	683	382	301	7.7
1948	-	1,647	882	765	18.9
1950	-	2,316	826	1,490	32.2
1951	-	2,805	708	2,097	44.6
1952	55,000	2,809	865	1,944	38.9
1953	56,000	2,903	808	2,095	38.7
1954	60,330	3,332	766	2,566	43.8
1955	65,342	3,600	878	2,722	43.1
1956	65,865	4,076	904	3,172	46.2
1957	74,646	3,320	1,138	2,182	30.1
1958	77,461	4,399	911	3,488	45.0
1959	77,673	4,201	935	3,266	39.5
1960	82,609	4,105	917	3,188	38.8
1961	84,249	4,312	606	3,706	44.0
1962	91,186	3,980	628	3,352	36.8
1963	98,438	3,521	666	2,855	29.0

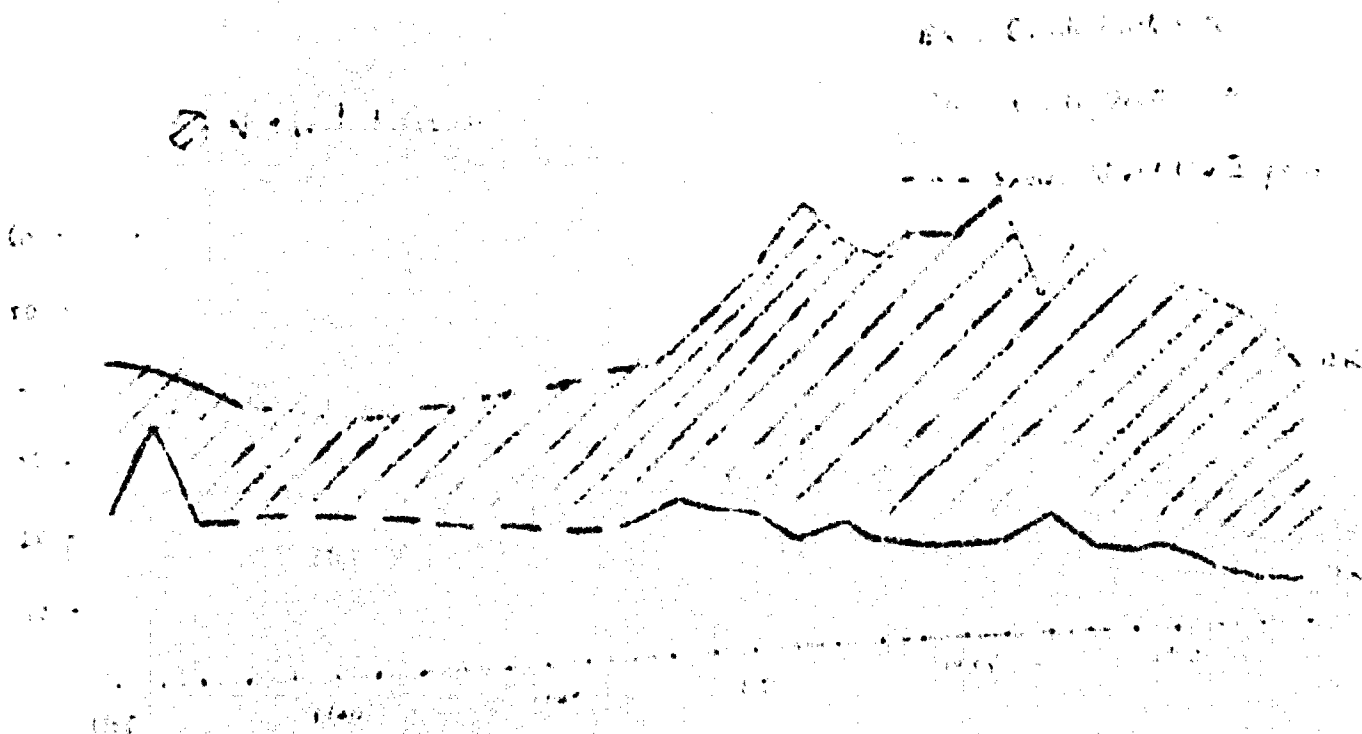
Considerable fluctuation occurred in the numbers and rates of natural increase during the years 1935-1938; the maximum was 29 and minimum was 9 approximately. The very low rate of increase in 1946 was a direct consequence of the Second World War. Thereafter, the rate recovered, and by 1950, had reached a record of 32.19 per 1,000 population. This rate continued to rise, with a rising number of births on the one hand and a falling number of deaths on the other. In 1956, a new record of 46.15 per 1,000 population was reached. This compares very favourably with Malaya's figure of 33.10 in 1957, and is, therefore, among the highest in the world. Of late, (1952 and 1963), however, there has been a significant decline in the rate of natural increase, but no explanation is yet available to account for this.

From this analysis, two conclusions can be drawn. Firstly, a rising birth rate and a falling death rate have combined to bring about a rising rate of natural increase. In the second place, the population growth of Brunei, especially after 1950, is due as much to natural increase as to immigration.

An alternative method of analysis is provided by an examination of birth and death rates. In Figure 5.1, the births and death rates are plotted over the years 1935-1963. Natural increase is represented by the gap between birth rate and death rate. The

FIGURE 5.1

NATURAL INCREASE, 1935-1963



discontinuity between 1938-1946 is the result of the Japanese Occupation. It is at once obvious, from the figure, that Brunei is experiencing a high and fluctuating birth rate, and a declining death rate, with the result that natural increase is an increasing function. If we classify demographic evolution into stages, viz.,

- i) High potential growth (high birth rate; high death rate).
- ii) Transitional growth (high birth rate; low death rate).
- iii) Low potential growth (low birth rate; low death rate).¹¹

Brunei would be in the second, though precisely how far she has travelled since her entry into this stage cannot, for want of data, be determined.¹²

Finally, we must note that the method of estimating annual population growth in Brunei is not completely satisfactory. The use of the Balancing Equation Method of computation¹³ involves two factors - 1) natural increase, and 2) net migration. With regards to migration statistics, there is a persistent tendency for arrivals to be more closely checked than departures, with the result that net immigration is overstated. The cumulative effect of this must be considerable, as is shown by the fact that the 1946 Annual Report estimated the population (in 1946) at 48,034, while the 1947 Census enumerated only 40,657 persons.

¹¹Classification according to Davies, K., "The World Demographic Transition", The Annals of the American Academy of Political and Social Science, Vol. CCXXVII, Jan. 1945, pp. 1-11, and also cited in Thornlinson, R., "Population Dynamics", (New York, Random House, 1965), pp. 18-24. For an account of other types of classifications, see United Nations, "The Determinants and Consequences of Population Trends", Population Studies No. 17, (New York, 1953), p. 44.

¹²When this Exercise is written, registration statistics for the years before 1934 are not available for use.

¹³Estimated Population at midyear $t + 1$ = Estimated Population + at midyear t

Natural Increase from midyear t to midyear $t + 1$ ± Net Migration from midyear t to midyear $t + 1$

CHAPTER VI

ECONOMIC CHARACTERISTICS OF THE WORKING POPULATION

The population of a country is divisible into two segments, the economically active and the non-economically active population. The former is subdivided into working and non-working. The present chapter deals with the working population.

The size of the working population is influenced by several factors. The first is, of course, demographic - age structure, sex composition, etc. The greater the proportion of persons between ages 15 and 64, the bigger the working population. A large proportion of males has the same effect. Second come factors like the availability and prevalence of child and female labour, which varies directly as the size of the working population. Other factors include the retirement age and the number of students of working age. The higher the retirement age, the larger the working population, and the more students are of working age, the less the number of people available for work.

Conceptual difficulties are encountered in manpower statistics. Owing to the fact that the notions "industry" and "occupation" are not easily comprehensible save by the better educated, there appears to be some likelihood of inaccuracy in the census statistics. In addition, the classification of part-time work poses new problems. Then, how shall we classify people with more than one job? How shall we treat those engaged in non-specialized economic functions? The 1960 Census had devised certain solutions to these problems, e.g., people working for at least one-third of the normal working time are classified as "working", and with persons with multiple jobs, the job yielding the most income would be chosen.

For our purposes, we shall first deal with the non-economically active population, and then proceed to analyse the working population by industry, occupation and status.

The Non-Economically Active Population

Table 6.1 shows the proportion of active and non-active persons for each race.¹ For both sexes, the Malays have the lowest proportion of economically active population (48%) and the Other Indigenous the

¹In this and subsequent tables, total population shall refer to total population aged 15 and over.

TABLE 6.1

PERCENT DISTRIBUTION OF ECONOMICALLY ACTIVE AND
NON-ECONOMICALLY ACTIVE POPULATION,
BY RACE AND SEX, 1960

Race	Persons		Male		Female	
	Active	Non-Active	Active	Non-Active	Active	Non-Active
Malay	43.0	52.0	84.6	15.4	10.8	89.2
Other Indigenous	70.2	29.8	92.6	7.4	42.7	57.3
Chinese	53.3	41.7	83.3	16.7	24.7	75.3
Others	67.6	32.4	94.4	5.6	23.7	76.3
All Races	55.5	44.5	86.1	13.9	20.1	79.9

highest (70%). With the exception of the Malays, more than half the population over 15 of each race is classified as economically active. Among the men, the proportions of economically active are fairly constant, remaining above 80% for all races, but the Malays and Chinese have the lowest percentages of the four race groups. This is chiefly because these races comprise people with regular jobs who retire when they reach retirement age. But the Other Indigenous, chiefly farmers, rarely retire, and the "Others" are made up of people who enter the State to work and later leave again, so that percentages are high. Among women, the proportion of economically active persons of the "Other Indigenous" races is exceptionally high, and this, in fact, accounts for the high proportion of economically active persons (both male and female). The Malay women have the lowest percentage (10.8%) of economically active persons.

The non-economically active population is composed of home houseworkers, students, retired persons and a residual category. By far the largest number comes from houseworkers. And most of these are between the ages 15 - 44. Females are predominant; only 45 out of 4,316 persons classified as home houseworkers are men. There are 2,697 students, of which only 781 are females. Just as all students are below age 44, virtually all retired persons are above it. The number of retired persons is 1,120, of which slightly over half are women. The residual category "Other" consists largely of people with no occupation or indeterminate occupation. About equal numbers are in the age groups "15 - 44" and "45 and over".

TABLE 6.2

NON-ECONOMICALLY ACTIVE POPULATION BY
CATEGORY, SEX AND AGE, 1960

	15 - 44			45 and Over		
	Persons	Male	Female	Persons	Male	Female
Home housework	11,575	30	11,545	2,741	15	2,726
Student	2,697	1,916	781	-	-	-
Retired	4	4	-	1,120	524	596
Other	612	459	343	989	370	619
Total	15,088	2,419	12,669	4,850	909	3,941

Economically Active Population

The economically active population comprises both people who are working, and people who are not working but looking for work. In Brunei, such economically active people number 24,830, and constitutes 55.5% of the total population aged 15 and above.

Table 6.3 illustrates the percentage distributions of the economically active population by race and sex. Let us first deal with race. For both sexes, the Malays make up about 45% of the economically active population - the largest proportion. This is followed by the Chinese, and close behind are the Other Indigenous races. The "Others" make up less than 5% of the economically active population. The distribution for males is slightly different, the Malays taking an even larger share, principally at the expense of the Other Indigenous races. The distribution is reversed in the case of females. The proportion of Malays falls to 29.7%, while that of the Other Indigenous rises to 36.4%. Chinese women also increase their share to 30%.

Percentage distribution in terms of sex shows a fairly uniform pattern, with males forming between 80 and 90% of the economically active population, and females forming the remainder. The case of the Other Indigenous races is exceptional. Here, only 72.9% of the active population are males, while 27.2% are females. As has been mentioned, many of these indigenous peoples are agriculturalists using considerable female labour, hence the high percentage.

In terms of age groups, the greater proportion of the economically active population is found between the ages 15 and 44, the mode being the age group 25 - 34, which accounts for 27.7%. Beyond

TABLE 6.3

PERCENT DISTRIBUTIONS OF ECONOMICALLY ACTIVE
POPULATION BY RACE AND SEX, 1960

Race	Percentage Distribution by Race			Percentage Distribution by Sex		
	Persons	Male	Female	Persons	Male	Female
Malay	44.7	47.7	23.7	100.0	68.3	11.2
Other Indigenous	22.5	19.7	36.4	100.0	72.8	27.2
Chinese	23.1	27.7	30.1	100.0	82.6	18.0
Others	4.7	4.9	3.8	100.0	86.7	13.3
All Races	100.0	100.0	100.0	100.0	84.0	16.0

age 44, the proportions decline rapidly, until 0.5% of the economically active population are over 75 years old. (Table 6.4). The pattern for males is generally similar, having the same nodal age group as

TABLE 6.4

ECONOMICALLY ACTIVE POPULATION BY AGE AND SEX, 1960

Age Group	Number			Percentage		
	Persons	Male	Female	Persons	Male	Female
15 - 24	5,619	4,357	1,262	22.6	21.1	30.3
25 - 34	6,867	5,906	961	27.7	23.6	23.0
35 - 44	5,485	4,617	868	22.1	22.4	20.8
45 - 54	3,757	3,102	575	11.1	15.4	13.9
55 - 64	2,340	1,925	415	9.4	9.3	9.9
65 - 74	637	559	78	2.6	2.7	1.9
75 & Over	125	113	12	0.5	0.5	0.3
15 & Over	24,830	20,659	4,171	100.0	100.0	100.0

vall. The pattern for females, however, differ significantly. The modal class is the age group 15 - 24, which contains 30.5% of the economically active women, as against 21.1% for men in the same age group. Besides being in a younger age group, the proportion in the modal class for women is higher than that for men (30.5% as against 25.9% respectively). After age 24, the proportion drops as age rises. One possible explanation is that women cease working after marriage or childbearing. The general pattern of having the percentages concentrated between the ages 15 and 44 is, however, still found to be present.

TABLE 6.5

PERCENT DISTRIBUTION OF ECONOMICALLY ACTIVE POPULATION, BY AGE AND RACE, 1960

Age Group	All Races	Indigenous	Chinese	Others
15 - 24	22.6	25.9	17.7	7.1
25 - 34	27.7	27.6	27.4	30.4
35 - 44	22.1	20.0	24.3	8.7
45 - 54	15.1	12.8	20.3	17.4
55 - 64	9.4	10.2	8.4	5.0
65 - 74	2.6	3.0	1.7	1.3
75 & Over	0.5	0.6	0.2	0.1
15 & Over	100.0	100.0	100.0	100.0

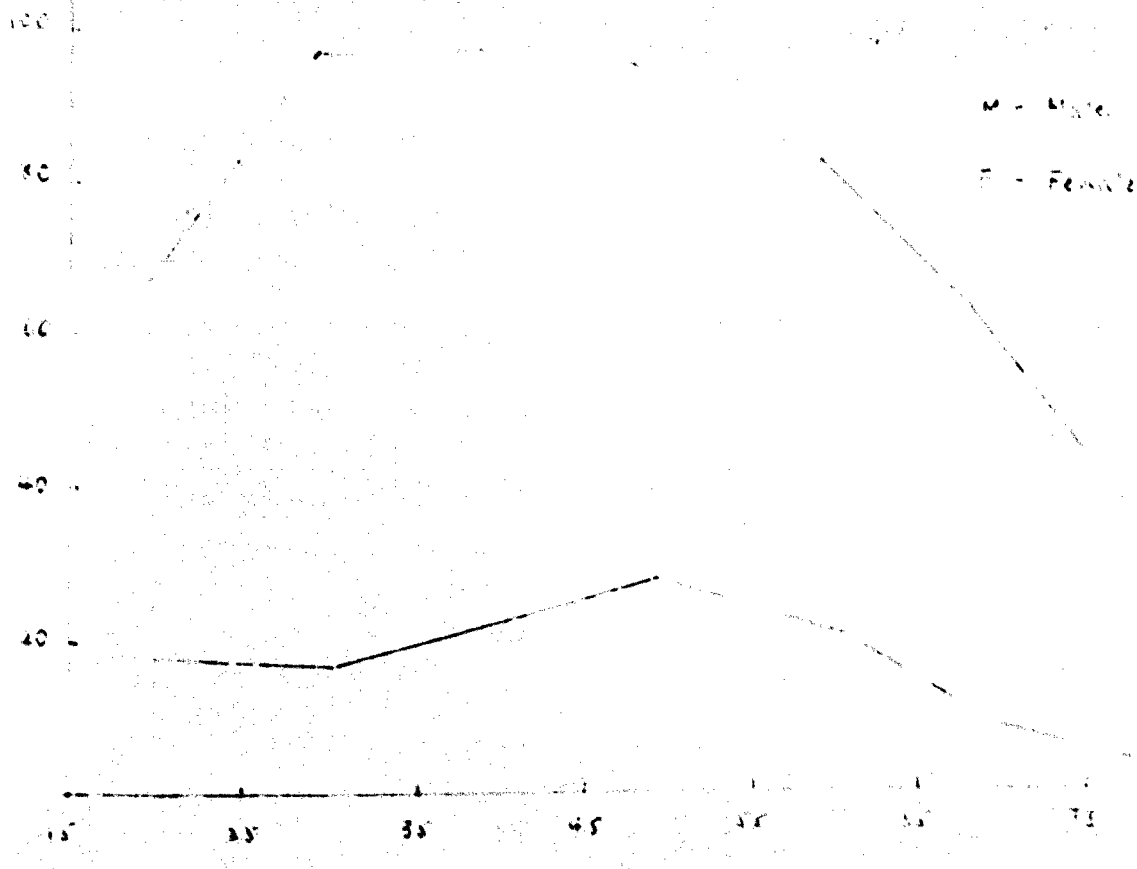
Table 6.5 shows the percentage of economically active population by age groups and race. The proportions among the Indigenous population correspond roughly to those for the entire population, but the Chinese have a somewhat different pattern. They have an older economically active population, the bigger proportion of them being between ages 25 and 54. About 50% of the economically active population of the "Other" races are concentrated within the age group 25 - 34. Another 17% are between 45 and 54 years old. It is difficult to explain these irregular fluctuations beyond the suspicion that possibly, the figures for the "Others" are too small to reflect any accurate pattern. One of the best measures of economic activity are Age-Specific Economic Activity Rates.² These are computed, separately

²Percentage of economically active population in an age group to total population in the same age group.

for males and females, by 10-year age groups in Table 6.6, and plotted in Figure 6.1. From the Figure, it is apparent that the rates for both sexes possess a similar pattern, though those for males are much higher throughout. Among the males, more than 80% are economically active between the ages 25 and 64, the rates being fairly stable. A marked drop occurs from age 65 onwards. As for females, there is a steady increase in the rates till ages 45 - 54, when 28.1% is registered; after age 55, a sharp drop is again in evidence. The male curve for France is similar to those of other countries, but the female curve possess certain distinct features of its own. Typical of an underdeveloped agricultural country, the curve is smooth throughout, rising gradually to a peak, and then declining, but unlike curves for these countries, it falls rather sharply after age 64.³

FIGURE 6.1

AGE SPECIFIC ECONOMIC ACTIVITY RATES, 1950



³For a description of the shapes of these curves (for both sexes) in industrialized and in agricultural countries, see: United Nations, "Demographic Aspects of Manpower", Report I, "Sex and Age Patterns of Participation in Economic Activities", Population Studies, No. 33, (New York, 1962).

TABLE 6.6

AGE SPECIFIC ECONOMIC ACTIVITY RATES, 1960

Age Group	Males	Females
15 - 24	66.4	19.3
25 - 34	97.7	17.3
35 - 44	99.5	23.3
45 - 54	97.0	23.1
55 - 64	86.2	22.9
65 - 74	65.0	9.1
75 & Over	34.7	3.9

Industry

The 1960 Census of Brunei defines "industry" as follows:

"Industry means the trade or business in which the person is working".⁴

Though as a concept, industry is distinct from occupation, they are not necessarily mutually exclusive. The same occupation may be found in several industries, e.g. a clerk in the rubber and building industries, while at the same time, there are multiple occupations in a single industry, e.g., clerk and manager in the rubber industry.

By far the largest percentage of economically active persons is found in general agriculture, of which rice planting and rubber cultivation are the most important, employing 3,693 and 2,263 persons respectively. Services, which include teaching, medical services, the police, some branches of the civil service and domestic service, occupy the second position, accounting for 19.2% of the total. Mining is also important, and consists principally of oil production. This is followed by building and construction. Retail trade is the chief component of the category "commerce", (7.8%). Manufacture is important, and includes, no doubt, repairing. (Table 6.7).

If we distinguish between male and female, we find that more than half of the women are engaged in agriculture, and slightly more

⁴Jones, op. cit., p. 64.

TABLE 6.7

PERCENT DISTRIBUTION OF ECONOMICALLY ACTIVE POPULATION
BY INDUSTRY, RACE AND SEX, 1960

Industry	All Races		Indigenous	Chinese	Others
	Persons	Female			
Agriculture, forestry, fishing & hunting	33.5	57.3	45.1	10.8	3.2
Mining and quarrying	15.1	4.2	12.1	16.1	51.7
Manufacture	5.7	5.6	3.5	11.5	2.9
Building and construction	13.6	0.2	14.3	13.0	7.6
Electricity, water supply and sanitary services	1.1	0.1	1.0	1.2	1.7
Commerce	7.8	5.1	3.3	18.5	5.4
Transport and communications	4.0	0.5	3.6	5.1	2.1
Services	19.2	27.0	17.1	23.8	21.4
All industries	100.0	100.0	100.0	100.0	100.0

than a quarter are in "services", almost all being engaged either in community services or in personal services. The distribution of men among the various industries tends to follow that for both sexes. Rather, figures for the latter are determined by the figures for males.

A large percentage of the indigenous population is in agriculture. This is only to be expected, since these people are essentially rural. Rather smaller proportions are found in services, building and construction, and mining and quarrying, in that order. The Chinese work chiefly in the services (25.3%), mining, almost entirely oil (16.1%) and, as is the case in the rest of Southeast Asia, commerce (18.5%). Comparatively few Chinese are in agriculture, and of the 10.3% who are, the majority are market gardeners. Of the "Others", slightly more than half work in the oil industry; the Europeans and Indians especially, have been brought into Brunei especially for work in the industry.

A comparison with Sarawak and North Borneo shows a much greater emphasis on agriculture in these States. If we take into account only males, 74.0% of Sarawak's and 76.9% of North Borneo's economically active population are in agriculture, as against Brunei's 20.7%. Brunei also has larger segments of economically active population in (oil) mining, building, commerce and manufacture, showing the more developed nature of Brunei's economy.⁵

Data on economic activity was collected from the censuses of 1921, 1931, 1947 and 1960, but only in the latter two censuses are the figures comparable. We can, therefore only trace the developments since 1947; this is done in Table 6.8. General agriculture, which excludes rubber planting has declined by about half from 1947, but oil production has gained 1,273 persons, despite the fall in percentage from 16 to 14. Significant advances are made also in building, rubber production, commerce, community service, and the category "other industries". Fishing and timber production, being agricultural in nature, have declined.

Occupation

Occupation is described as the kind of work done by a person, e.g., clerk, administrators, etc.

In Brunei, about one-third of the economically active persons over 15 years old are engaged in agriculture (Table 6.9). Of the agricultural workers, half are workers on small holdings and market gardens, and another quarter are rubber tappers. There are also 709 fishermen, 682 loggers, 172 estate agricultural workers (in factories) and 23 managers, etc. A considerable proportion are craftsmen and labourers (generally unspecialized). Slightly less than 10% of economically active persons over 15 are occupied as service, sport and entertainment workers. Professional, administrative, clerical, sales

⁵For comparative statistics on the three territories, see Appendix IVa.

TABLE 6.8

ECONOMICALLY ACTIVE POPULATION BY
INDUSTRY, 1947 AND 1960

Industry	Number		Percentage	
	1947	1960	1947	1960
General agriculture	5,407	4,722	38.2	19.0
Oil production	2,235	3,553	16.1	14.3
Building construction	899	3,333	6.4	13.7
Rubber production, processing	629	2,233	4.4	9.2
Commerce	602	1,941	4.3	7.8
Manufacture	826	1,419	5.8	5.7
Personal service, entertainment	943	1,390	6.7	5.6
Community service	86	1,375	0.6	5.5
Transport, communications	290	982	2.0	4.0
Fishing	634	703	4.5	2.9
Timber production	397	225	2.8	0.9
Other industries	1,255	2,334	8.2	11.4
All industries	14,153	24,330	100.0	100.0

and transport workers each accounted for slightly more than 6%. Only 0.5% are miners and quarrymen but this is no indication of the number of persons employed in, nor of the importance of, the oil industry. Other occupations like clerks, professional workers, labourers, etc. are also employed in the industry.

As in the case of industry figures, proportions among the males and for the whole population show considerable conformity, except that a smaller portion are agricultural workers and a larger portion are craftsmen and labourers. 57.4% of economically active women are agricultural workers while 16.4% are in services, especially domestic services.

Among the indigenous people, almost half are agricultural

TABLE 6.9

PERCENT DISTRIBUTION OF ECONOMICALLY ACTIVE POPULATION
BY OCCUPATION, AGE AND SEX, 1960

Occupation	All Race		Indigenous	Chinese	Others	
	Persons	Male				Female
Professional and Technical workers	6.5	5.5	11.2	4.4	6.9	32.9
Administrative workers	2.0	2.3	0.2	1.3	2.2	9.4
Clerical workers	6.6	7.1	4.2	4.7	10.0	14.4
Sales workers	6.0	6.4	4.1	2.7	14.1	6.5
Agricultural workers	35.1	30.5	57.4	47.2	11.4	3.7
Miners and Quarrymen	0.5	0.6	-	0.4	0.0	4.4
Transport workers	6.4	7.7	0.2	7.4	4.6	3.1
Craftsmen and Labourers	28.3	32.8	6.3	26.4	34.7	17.3
Service, Sport, Entertainment workers	8.6	7.1	16.4	5.5	16.1	8.3
All occupations	100.0	100.0	100.0	100.0	100.0	100.0

workers, and another quarter are craftsmen, production workers and labourers, while the other occupations account for the remaining quarter of the population. Among the Chinese, however, only 11.4% are in agriculture, but 34.7% are production workers, labourers and craftsmen, 16.1% are in the "services" category, and clerical and sales workers account for 10% each. Such a distribution suggests a race more urban than rural. About a third of the "Others" are professional and technical workers, about 14% are clerks, and 17% are production workers. As they enter Brunei to work for the Government or for the oil company, very few (3.7%) are engaged in agricultural pursuits.

In Sarawak and North Borneo, about 75% are agricultural workers, but in Brunei, the proportion is one-third. Where production workers are concerned, however, Brunei's proportion is almost three times as large as those of the two other States. Large numbers of clerical workers, transport workers and sales workers are also found in Brunei, but not in Sarawak and Borneo. This indicates the more agricultural nature of the two neighbouring territories. (Appendix IVB).

Status

No information on status has been collected until the Census of 1960, which classifies "status" into four categories:

- 1) Employer - a person who engages one or more persons other than members of his own household for operating his own enterprise. A person is not an employer merely through engaging domestic servants.
- 2) Employee - a person who works for an employer other than a member of his own household and receives wages whether in cash or kind.
- 3) Own Account Worker - a person who does not engage an employee in his own enterprise.
- 4) Family Worker - a person who works with or without pay in an enterprise operated by another member of his/her own household.⁶

From Table 6.10, we find that over 60% of all workers are employees, about a quarter are own account workers. Family workers are not numerous, numbering 2,814 persons out of 24,850 workers, or 11.3%. The least numerous are employers, numbering 472 persons and accounting for 1.9% of those economically active. There is a greater proportion of employees among males, a slightly larger portion of employers, and a very much smaller proportion of family workers. On

⁶Jones, op. cit., p. 64.

TABLE 6.10

ECONOMICALLY ACTIVE POPULATION BY
STATUS AND SEX, 1960

Status	Number			Percentage		
	Persons	Male	Female	Persons	Male	Female
Employer	472	465	7	1.9	2.3	0.2
Employee	15,235	15,775	1,450	61.4	66.7	35.0
Own account worker	6,303	5,464	844	25.4	26.4	20.2
Family worker	2,314	954	1,860	11.3	4.6	44.6
Total	24,330	20,699	4,717	100.0	100.0	100.0

the other hand, 44.6% of the women are family workers, mostly unpaid, who help the men in their enterprises. 35% are employees, 20.2% are own account workers and, understandably, only 7 persons out of 4,671 women are employers.

The large percentage of employees is indicative of a more developed economy less dependent upon agriculture, a characteristic of which is a preponderance of own account workers and family workers who work in the fields. Thus, Sarawak has 44.2% and 34.7% of the workers of Sarawak are family workers and own account workers respectively. The corresponding figures for Brunei are 11.3% and 25.4% respectively. Again, only 19.3% of Sarawak workers are employees, as opposed to Brunei's 61.4%. (Appendix IVC).

TABLE 6.11

PERCENT DISTRIBUTION OF ECONOMICALLY ACTIVE
POPULATION BY STATUS AND RACE, 1960

Race	Total	Employer	Employee	Own Account Worker	Family Worker
Malay	100.0	0.5	66.1	25.3	8.1
Other Indigenous	100.0	0.1	33.1	38.9	27.9
Chinese	100.0	5.6	71.4	18.0	5.0
Others	100.0	1.9	91.2	6.6	0.4
All Races	100.0	1.9	61.4	25.4	11.3

Two thirds of the Malays are employees, as are 71.4% of the Chinese. (Table 6.11). This illustrates a preference for seeking employment among these races. On the other hand, only one third of the Other Indigenous are employees, but 38.9% are own account workers and 27.9% are family workers. These, then, are the smallholders and the farmers, planting crops with the help of the family, and employing no one, the typical subsistence farmers. A much smaller portion of Malays are own account and family workers, and among the Chinese, it is even smaller. They have also the largest percentage of employers (5.6%) among the various races. In the group of Others, 9 persons out of 10 are employees, this large figure being due to the fact that most of these people are brought into the state as employees of the Government and the oil company

Analysis by Industry, Occupation and Status

Table 6.12 shows the various categories of status within each industry. Commerce accounts for the largest proportion of employers. 181 out of 1,941 persons, or 9.3% in this "industry" are employers. In manufacturing, 5.5% are employers, this being followed by agriculture with 3.1% and building and construction with 2.6%. It is noteworthy that only 0.1% of those in the oil industry are employers. In the same (mining) industry, 97.5% are employees, followed by 97.4% for electricity, water supply and sanitary services. Numerically, however, services is first with 4,476 persons, while mining is only second with 3,657 persons. Other industries, building and construction, and transport the percentages exceed 80. And since much of the work in the building industry, services and mining is, in fact, provided directly or indirectly either by the government or by the oil company, it is fairly safe to assume that a large proportion of the employees in the state are working, in practice, for the government or the oil company. A large segment of the own account workers are found in agriculture, for reasons already enumerated. One curious fact, however is that 40.6% of those in commerce are own account workers. This is probably due to the large number of Chinese in this industry. The Chinese, it appears, are more familiar with smaller, individual enterprises than large corporations employing a large number of employees. About a quarter of those in manufacturing are own account workers, a fact explained by the inclusion of repairing, where again individual enterprises are popular, in the category of "manufacturing". Considerable sections of family workers are found in agriculture, where 29.2% of the people fall into this category, in manufacture, 10.0% and commerce, 9.9%.

A rather different analysis by occupation and status is illustrated in Table 6.13. Understandably, a fair proportion of employers is found among administrative, executive and managerial workers, (26.6% of these workers are employers). About 11% of sales workers are employers. Probably most of these are found in the wholesale and retail trade. In the other occupation groups, employers form less than 5% of the workers. Most persons in each of the occupations are employees. Among the professional, technical and related workers, this percentage is as high as 98.6%, and among the clerical workers, it

TABLE 6.12

PERCENT DISTRIBUTION OF ECONOMICALLY ACTIVE POPULATION
BY INDUSTRY AND STATUS, 1960

Industry	Total	Employer	Employee	Own Account Worker	Family Worker
Agriculture, Forestry, Fishing	100.0	3.1	14.1	56.5	29.2
Mining, Quarrying	100.0	0.1	97.5	2.3	0.1
Manufacturing	100.0	5.5	60.8	23.7	10.0
Building, Construction	100.0	2.6	93.9	3.4	0.1
Electricity, Water Supply, etc.	100.0	1.5	97.4	0.7	0.4
Commerce	100.0	9.3	40.2	40.6	9.9
Transport, Communication	100.0	1.3	95.6	12.0	1.0
Services	100.0	1.7	94.0	3.5	0.9
All Industries	100.0	1.9	61.4	25.4	11.3

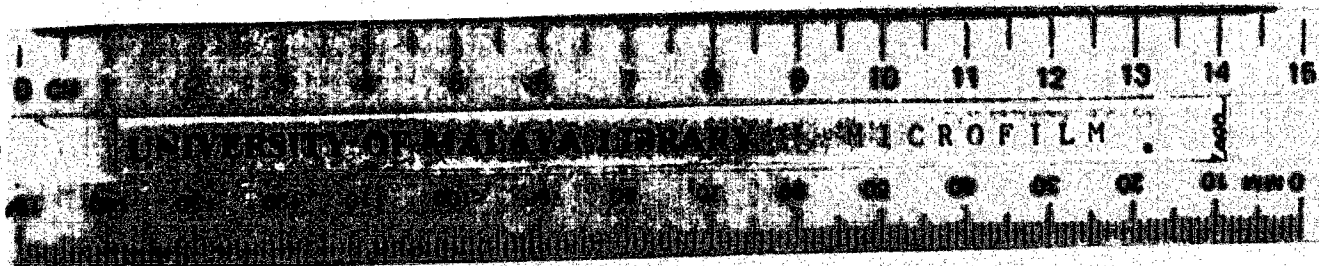
TABLE 6.13

PERCENT DISTRIBUTION OF ECONOMICALLY ACTIVE POPULATION
BY OCCUPATION / EL STATUS, 1960

Occupation	Total	Employer	Employee	Own / account worker	Family worker
Professional, etc. workers	100.0	0.4	98.6	1.0	0.0
Administrative, etc. workers	100.0	26.6	65.6	7.8	0.0
Clerical workers	100.0	0.0 ^(a)	99.5	0.2	0.3
Sales workers	100.0	11.0	27.6	49.5	11.9
Agricultural workers, etc.	100.0	0.3	17.7	54.1	27.9
Miners, etc. workers	100.0	0.0	95.5	4.5	0.0
Transport, etc. workers	100.0	0.0	93.6	6.3	0.1
Production workers, etc.	100.0	1.1	89.1	7.7	2.1
Service, etc. workers	100.0	3.3	88.0	6.9	1.9
All occupation	100.0	1.9	61.4	25.4	11.3

(a) 0.0% does not necessarily mean a complete absence of, say, employers in an occupation group. For instance, 6 employers are recorded in the occupation "transport, etc.", but this figure represents less than 0.05% of the total persons in the group.

is 99.5%. There are, of course, exceptions. Only 17.7% of the agricultural workers are employees, while 27.9% of the sales workers are employees. For reasons already given, more than half of the agricultural workers are own account workers. The percentage for sales workers is 49.5%; one reason for this is the large number of salesmen, hawkers and stall holders, who, quite obviously, do not employ any assistants. Agricultural workers and sales workers again possess the largest percentages of family workers, 27.9% and 11.9% respectively. The reason for this is the same as that for own account workers. We find, therefore, close positive correlation between the percentages of own account workers and family workers.



APPENDIX I

COMPOSITION OF INDIGENOUS POPULATION 1921-1960^(a) (%)

Race	1921	1931	1947	1960
Malay	57.0	55.5	53.7	76.2
Medayan	19.8	21.9	21.6	7.3
Melanau	-	-	0.3	0.5
Tutong	10.0	10.2	7.8	-
Sea Dayak	1.0	1.7	4.3	6.6
Dusun	4.6	7.9	8.8	8.2
Other Indigenous	7.6	2.8	3.5	1.2
All Indigenous	100.0	100.0	100.0	100.0

(a) The division of indigenous people into the above categories is not based on ethnic grounds. Considerable overlapping between each category is probable.

APPENDIX II

A. "HEAPING" OF AGES, 1960

Age	All Races	Malay	Other Indigenous	Chinese	Others
19	1,299	724	230	328	17
20	1,867	1,005	463	309	25
21	1,031	544	201	310	26
24	1,172	586	219	343	24
25	1,718	973	391	320	34
26	1,019	500	189	237	43
29	918	423	154	273	63
30	2,036	1,145	437	364	90
31	759	324	112	267	56
49	376	138	30	185	23
50	1,103	569	237	259	38
51	261	100	26	123	12

Note: "Heaping" is more pronounced among a) the indigenous races, b) the advanced ages.

B. EXAGGERATION OF AGE, 1947

Race	Age Group		
	Total 90 and Over	90 - 99	100 and Over
Malay	23	22	1
Other Indigenous	17	24	3
Other Non-indigenous Asiatic	1	1	-
Total	41	37	4

Note: Large number over 90 among the Indigenous is a definite exaggeration.

APPENDIX III

OVER-REGISTRATION - INCOMPARABILITY BETWEEN
CENSUS AND REGISTRATION DATA

Births Registered in	Age Reported in 1960 Census	All Races	Malays	Other Indigenous	Chinese
1959	1	4,201	2,529	590	909
		2,764	1,647	436	576
1948	2	4,399	2,331	735	1,079
		3,633	2,110	617	799
1957	3	3,320	1,489	531	1,032
		3,456	1,832	530	833
1956	4	4,076	2,111	755	972
		3,311	1,906	505	805
1955	5	3,600	1,702	723	973
		3,140	1,676	503	846

APPENDIX IV

PERCENT DISTRIBUTION OF ECONOMICALLY ACTIVE
POPULATION, (MALES ONLY) BRUNEI,
SARAWAK, NORTH BORNEO, 1960

A. BY INDUSTRY

Industry	Brunei	Sarawak	North Borneo
Agriculture, forestry, fishing	23.7	74.0	76.6
Services	17.6	6.8	5.9
Oil mining	16.4	0.8	-
Building, construction	16.3	2.4	5.4
Commerce	8.4	6.8	5.4
Manufacturing	5.7	5.5	4.4
Transport, communications	4.7	2.9	3.7
Other industries	2.2	0.8	0.6
All industries	100.0	100.0	100.0

B. BY OCCUPATION

Occupation	Brunei	Sarawak	North Borneo
Production workers, labourers not elsewhere classified	32.8	10.1	12.5
Agriculture, forestry workers, fishermen	30.5	74.0	72.1
Transport, communications workers	7.7	2.3	3.2
Service workers	7.1	2.6	3.2
Clerical workers	7.1	2.1	2.6
Sales workers	6.4	5.8	4.0
Technical, etc. workers	5.5	2.5	1.8
Others	2.9	0.6	0.6
All occupations	100.0	100.0	100.0

C. BY STATUS

Status	Brunei	Sarawak	North Borneo
Employer	1.9	1.1	1.5
Employee	61.4	19.3	34.3
Own account worker	25.4	34.7	33.0
Family worker	11.3	44.9	31.2
Total	100.0	100.0	100.0

APPENDIX V

SOME DEFINITIONS

The following definitions are arranged in the order of their appearance in the text.

1) Migration:

- a) An immigrant shall be deemed to be an alien who arrives in a country in search of employment there and intends to settle there permanently. Any alien who arrives in a country for the sole purpose of working there temporarily shall be deemed to be an ordinary traveller.
- b) An emigrant is a person who leaves his country in search of employment, or to accompany or join his consort, parents or children, brothers or sisters, uncles or aunts, nephews or nieces, or their consorts, who have already emigrated for the same purpose or one who returns in the same conditions to the country which he has already entered as an immigrant on a previous occasion.

United Nations, "Problems of Migration Statistics",
Population Studies No. 5, (New York, 1949), p. 3.

2) Marital Status:

- a) Single - a person who has never married.
- b) Married - a person who is married and whose spouse is alive. (It) means what the individual thinks it to be and not what law or custom demands.
- c) Widowed - a person whose spouse is dead and who has not remarried.
- d) Divorced - a person who is divorced and has not remarried.

Jones, L.W., "Brunei: Report on the Census of Population, 1960" (Kuching, Government Printing Office, 1961),
p. 37.

3) Fertility and Mortality:

- a) Fertility is an actual level of performance in a population, and measured by the frequency of births in that population.

- b) Pecundity is the physical capacity to bear children, and is a measurement of potential performance.

Barclay, G.W., "Techniques of Population Analysis",
(New York, Wiley, 1965), p. 167.

- c) Live Birth is the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy, which, after such separation, breathes or shows any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached; each product of such a birth is considered live born.
- d) Foetal Death is death prior to the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy; the death is indicated by the fact that after such separation the foetus does not breathe or show any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles.

United Nations, "Foetal, Infant and Early Childhood-Mortality", Vol. I, Population Studies No. 14,
(New York, 1954), p. 4.

4) Working Population:

- a) Economically Active Population refers to all persons of either sex who furnish the supply of labour available for the production of economic goods and services. It includes both persons employed and unemployed during the time reference period adopted in the census.
- b) Non-economically Active Population comprises homemakers (housewives and other relatives), students, persons in institutions, income recipients who are not employed or unemployed, and all other persons not included in the economically active population.

United Nations, "Handbook of Population Census Methods",
Vol. II, "Economic Characteristics of the Population",
(New York, 1958), p. 5.

- c) Industry means the trade or business in which the person is working. ... The same occupation may be found in several industries. For example, a driver may work in the rubber industry, or for a building contractor, or in the oil industry, or for the government, or in a number of other industries. Similarly in the same industry there may be several occupations; for instance, in the rubber industry there are tappers, drivers, clerks, motor mechanics, etc.

- d) Occupation refers to the kind of work done by a person, such as builder or farmer.
- e) Status refers to whether a person is an employer, employee, own account worker, or a family worker.
- i) An employer is a person who engages one or more persons other than members of his own household for operating his own enterprise. A person is not an employer merely through engaging domestic servants.
 - ii) An employee is a person who works for an employer other than a member of his own household and receives wages whether in cash or kind.
 - iii) An own account worker is a person who does not engage an employee in his own enterprise.
 - iv) A family worker is a person who works with or without pay in an enterprise operated by another member of his/her own household.

Jones, L.V., "Brunei, Report on the Census of Population 1960", (Kuching, Government Printing Office, 1961), pp. 63-64.

BIBLIOGRAPHY

(A) Census Reports:

1. Jones, L.W., "Brunei: Report on the Census of Population taken on 10th August 1960", (Kuching, Government Printing Office, n.d.).
2. Hoakes, J.L., "Sarawak and Brunei: A Report on the 1947 Population Census", (Kuching, Government Printing Office, 1950).
3. Vlieland, C.A., "British Malaya: A Report on the 1931 Census and Certain Problems of Vital Statistics", (London, Crown Agents for the Colonies, 1932).
4. Nathan, J.E., "The Census of British Malaya, 1921", (London, Waterlow and Sons, 1922).
5. Jones, L.W., "Sarawak: Report on the Census of Population taken on 15th June 1960", (Kuching, Government Printing Office, 1962).
6. Jones, L.W., "North Borneo: Report on the Census of Population taken on 10th August 1960", (Kuching, Government Printing Office, 1962).

(B) Annual Reports:

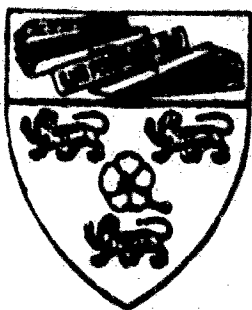
1. Turnbull, R.E., "Annual Report on the Social and Economic Progress of the People of Brunei for the year 1935", (Singapore, Government Printing Office, 1936).
2. Black, J.G., "Annual Report on the Social and Economic Progress of the People of Brunei for the year 1936", (Singapore, Government Printing Office, 1937).
3. Black, J.G., "Annual Report on the Social and Economic Progress of the People of Brunei for the year 1937", (Singapore, Government Printing Office, 1938).
4. Black, J.G., "Annual Report on the Social and Economic Progress of the People of Brunei for the year 1938", (Singapore, Government Printing Office, 1939).
5. Peel, W.J., "Annual Report on Brunei for the year 1946", (Kuala Lumpur, Malayan Union Government Press, 1948).

6. Pretty, E.E.F., "Annual Report on Brunei for the year 1948", (Singapore, Malaya Publishing House, 1949).
7. State of Brunei, "Annual Report, 1954", (Kuching, Government Printing Office, 1955).
8. State of Brunei, "Annual Report, 1955", (Kuching, Government Printing Office, 1956).
9. State of Brunei, "Annual Report, 1959", (Kuala Belait, Brunei Press, 1961).
10. State of Brunei, "Annual Report, 1960", (Kuala Belait, Brunei Press, 1962).
11. State of Brunei, "Annual Report, 1961-1962", (Kuala Belait, Brunei Press, 1964).
12. State of Brunei, "Annual Report, 1963", (Kuala Belait, Brunei Press, 1965).

(c) Miscellaneous Sources:

1. Lee, Y.L., "The Population of British Borneo", Population Studies, Vol. XV, 1961-1962, (London, Hereford Times, 1962).
2. Country Survey Series, "North Borneo, Brunei, Sarawak", (New Haven, 1956).
3. Purcell, V., "The Chinese in Southeast Asia", (London, Oxford University Press, 1965).
4. Blundell, P., "The City of Many Waters", (London, 1923).
5. Barclay, C.W., "Techniques of Population Analysis", (New York, J. Wiley and Sons, 1958).
6. United Nations, "Handbook of Population Census Methods, Vol. I", (New York, United Nations Statistics Office, 1959).
7. United Nations, "The Population of Southeast Asia, 1950-1980", Population Studies No. 30, (New York, 1958).
8. United Nations, "Recent Trends in Fertility in Industrialized Countries", Population Studies No. 27 (New York, 1958).
9. Logan, W.P.D., "The Measurement of Infant Mortality", Population Bulletin of the United Nations, No. 3, Oct. 1953 (New York, 1953).

10. United Nations, "Demographic Aspects of Manpower", Report I, "Sex and Age Patterns of Participation in Economic Activities". Population Studies No. 33, (New York, 1962).
11. United Nations, "Problems of Migration Statistics", Population Studies No. 5, (New York, 1949).
12. United Nations, "The Determinants and Consequences of Population Trends", Population Studies No. 17, (New York, 1953).
13. Davies, K., "The World Demographic Transition", The Annals of the American Academy of Political and Social Science, Vol. 237, Jan. 1945, (Philadelphia, 1945).
14. Thornlinson, P., "Population Dynamics" (New York, Random House, 1965).



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