

A REPORT ON THE RESULTS OF THE
CENSUS OF THE POPULATION
OF TUVALU 1979



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Government of Tuvalu

Funafuti

Tuvalu

1980

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April 1980

SUMMARY OF MAIN FINDINGS

Census Date

Population:

De facto indigenous	7271)	
De facto non-indigenous	78)	7349
De jure total (approx.)	8652	
Sex composition (de facto population)	87 males per 100 females	
Age structure	33.5% of the population aged under 15 years	

Fertility:

Crude birth rate	23.7 per 1000 total population
Total fertility rate	2.8 per woman

Mortality:

Crude death rate	15.0 per 1000 total population
Infant mortality rate	42 per 1000 live births
Expectation of life at birth	males : 57 years females: 60 years

Rate of natural increase: 0.87% p.a.

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Figure I Map of Tuvalu in the South Pacific

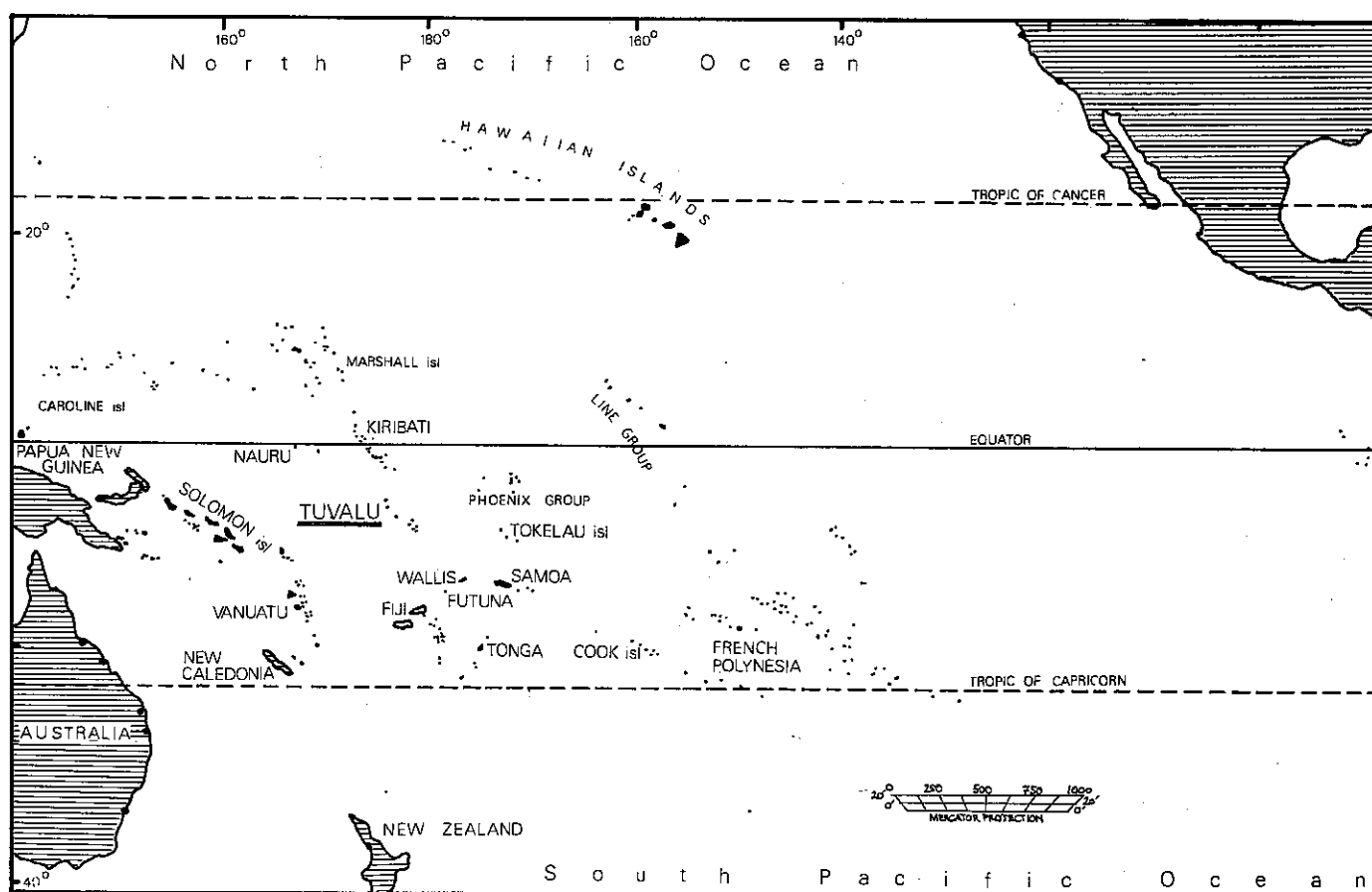
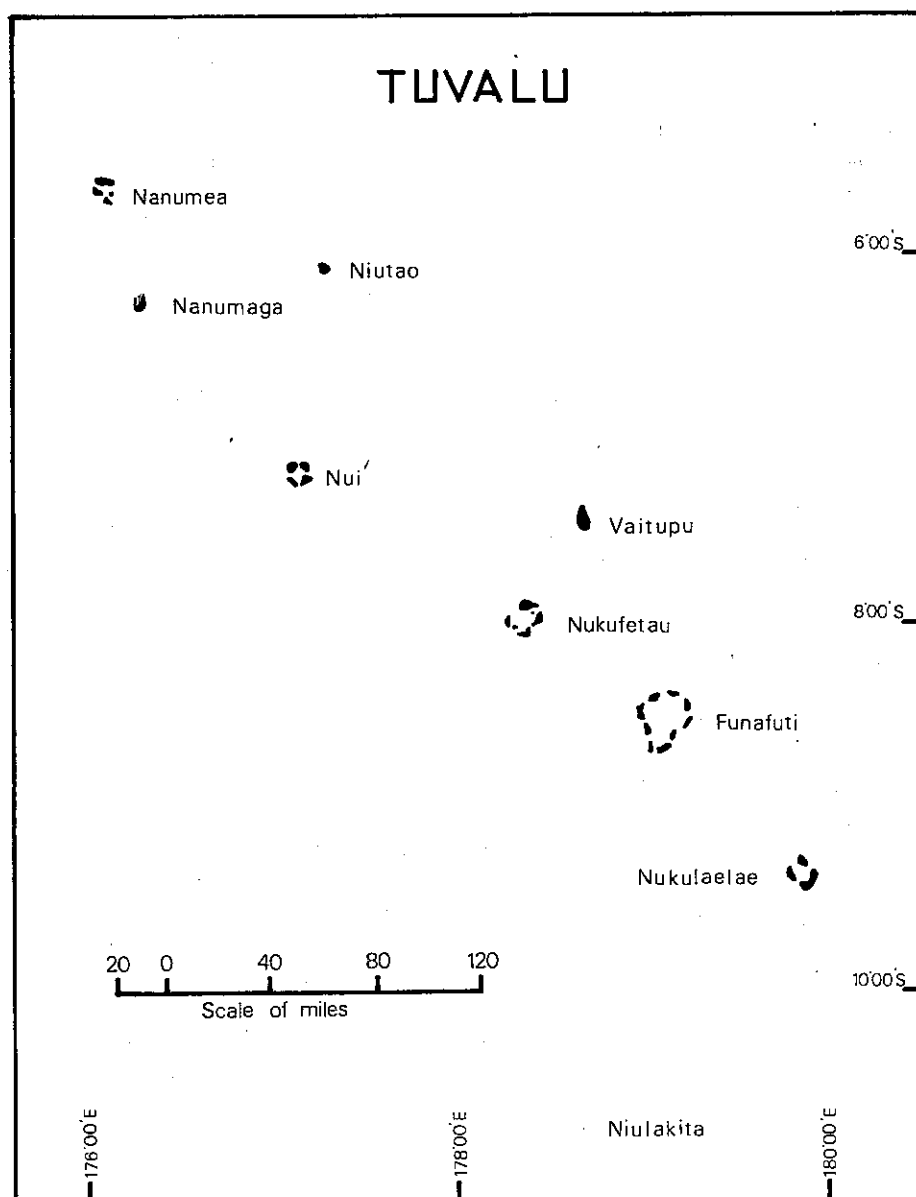


Figure II Map of the islands of Tuvalu



INTRODUCTION

Tuvalu* comprises nine islands and is situated in the south-west Pacific between 5 and 11 degrees South and 176 and 180 degrees West. The islands have a total land area of approximately 10 square miles (26 square kilometres) and are scattered over about 0.5 million square miles (1.3 million square kilometres) of the Pacific Ocean, forming a chain running in a north-west to south-east direction some 360 miles (579 kilometres) in length. Tuvalu is remote, isolated from larger centres of civilisation: Funafuti, the capital, being some 650 miles (1,046 kilometres) from Suva and 2,500 miles (4,022 kilometres) from Sydney.

The islands are low-lying atolls, never rising more than 15 feet (4.6 metres) above sea level. They are composed of coral reefs built on the outer arc of the ridges formed by pressure from the Central Pacific landmass against the ancient Australian landmass. In five of the islands the reefs enclose sizeable lagoons, but the remaining islands are comprised only of pinnacles of land rising abruptly from the ocean bed. Only at Funafuti and Nukufetau can ships enter the lagoons: elsewhere there are no anchorages in all but the calmest weather.

The climate is tropical without any marked wet and dry or hot and cold seasons. Rainfall averages 146 inches (3,708 mm) annually and the mean temperature is 29°C (86°F), but the heat is moderated by trade winds which blow from the east for much of the year. Though Tuvalu is situated to the north of the recognised hurricane belt, the islands have been struck twice in modern times by severe cyclones - one in 1894 and another more severe, in 1972 when hurricane "Bebe" devastated most of Funafuti's houses and coconut trees.

The total number of Tuvaluans is now about 10,000. Of these, 7,100 are living in Tuvalu itself, while about 1,600 are residents of the country of Kiribati (the former Gilbert Islands) and the Republic of Nauru. Another 350 Tuvaluans are overseas, either working on foreign ships or attending educational institutes**. Major communities of people of Tuvaluan origin can be found throughout the Pacific.

Tuvalu has a predominantly subsistence economy. The majority of the economically active population is engaged in village agriculture, fishing or household pursuits. Cash, however, is becoming an increasingly important adjunct to the village economy, mainly as a result of remittances from relatives employed overseas or in Funafuti. With the growth in cash incomes, the Tuvaluan economy has become increasingly dependent on imports. There is a growing tendency for imports to replace some local products: flour, rice, tinned meat and fish, sugar, tea and coffee are becoming increasingly important elements of diet. Almost all imported and local products are sold through the Tuvalu Cooperative Wholesale Society and its retail outlet, the Fusi. On Funafuti, however, a number of privately-owned stores are being established.

The atoll environment imposes special ecological constraints to crop production. The soil is generally infertile. Moreover, the combination of low moisture-retaining capacity in the rooting medium, periodic drought, and relatively high levels of evapotranspiration maintained by constant winds further restrict the range of crops that can be grown. Another important constraint is the effect on these narrow islands of salt spray and the high concentration of salt carried by the wind.

* The name of the former Ellice Islands. The traditional name "Tuvalu" was readopted after the Ellice Islands separated from the Gilbert Islands on 1st October, 1975.

** Based on the 1979 Census.

The people are of Polynesian race and have close ties with the Samoans and Tokelauans. The main languages are Tuvaluan and English. Virtually all the people are Christian and religion is a powerful factor in everyday life for the large majority. Tradition speaks of Samoa as the Tuvaluans' original home, and it is probable that the islands were settled accidentally by parties drifting westwards with the prevailing wind from the larger Polynesian islands in the central Pacific.

It is thought that the first European sightings of Tuvalu took place when the Spanish navigator Mendana sighted the islands of Nui in 1568 and Niulakita in 1595. No further contact was made until the second half of the eighteenth century and the first quarter of the nineteenth century. The first European settlers in Tuvalu were missionaries from the London Missionary Society who arrived in 1865. They installed Samoan pastors on the islands, and the islanders soon embraced the new faith. Since then the Protestant Church has had a strong and continuing influence on life in the islands.

Between 1850 and 1875 'blackbirders' - kidnappers of native labour - raided many of the islands in the Gilbert and Ellice groups carrying away islanders to the South American guano mines and coffee plantations and to Fiji, Tahiti, Hawaii and Queensland, Australia. During this time the population of Tuvalu (then the Ellice Islands) was considerably reduced. To help suppress such abuses and maintain order in the islands raided by the 'blackbirders', Britain established the High Commission for the Western Pacific in 1877 with jurisdiction over all British subjects. In 1892 after the wishes of the inhabitants had first been ascertained, the Ellice Islands, along with the Gilberts, were proclaimed a British Protectorate, and in 1916, at the request of the local government, Britain annexed the Protectorate as the Gilbert and Ellice Islands Colony.

The Polynesian people of the former Ellice Islands differ culturally, socially, linguistically and politically from the Micronesian inhabitants of the Gilbert Islands. In the 1970s these differences were reflected in a desire of the Ellice Islanders to separate from the Gilberts and make their own way to independence. In 1973 a Commissioner was appointed to examine the problem and on the basis of his report and recommendations, the British Government concluded that a separation should take place provided that a referendum showed the majority of Ellice Islanders to be in favour. In a referendum held from August to September 1974, an overwhelming majority - 3,799 against 293 - voted for separation. The Government of Gilbert and Ellice Islands subsequently confirmed that the wishes of the majority of the Ellice Islanders would be respected and on 1st October 1975 the Ellice Islands were established legally as a separate colony called Tuvalu. Formal administrative separation was implemented on 1st January 1976.

On 1st October, 1978, Tuvalu became a fully-independent state. Under the new Constitution the Queen is the Head of State, represented in Tuvalu by a Tuvaluan Governor-General. The House of Parliament consists of twelve members who are elected by the people on the basis of universal adult suffrage. The normal life of Parliament is four years. The Cabinet consists of a Prime Minister, appointed by the members of Parliament and up to four other Ministers.

CHAPTER 1

HISTORICAL BACKGROUND

*Doug Munro and
Richard Bedford*

Introduction

The history of population change in the nine small coral atolls and reef islands comprising Tuvalu (formerly the Ellice Islands in the Gilbert and Ellice Islands Colony) has been the subject of some debate in the academic literature (see, especially, Newton, 1967 and Bedford *et al.*, 1980). However no comprehensive assessment of the numerous counts and estimates of resident numbers during the nineteenth and twentieth centuries has been published in an official census document. It is therefore appropriate to commence the first report of an enumeration in the independent nation of Tuvalu with a survey of population trends.

Our discussion falls into four parts. The first reviews speculations on the origins of the Tuvaluans and their population numbers before the arrival of missionaries in the 1860s. The second section explains an increase in population during the first thirty-five years of protracted contact with Europeans. Information on resident numbers over the period 1865 to 1900 has been obtained from reports and diaries of missionaries associated with the London Missionary Society (LMS) as well as from writings of naval officers and other visitors to the group in the nineteenth century. A note on these sources can be found in the bibliography of this report. The third section analyses trends between 1900 and 1931 as these were revealed in statistics collected by administration officers working in the Ellice Islands District of the former Colony. The course of population change from the time of a comprehensive census in 1931 until the last official enumeration in the Gilbert and Ellice Islands Colony in 1973 is examined in the final section. A summary of the more important estimates and enumerations in Tuvalu since the mid-1860s is contained in Table 1.1.

The Pre-Missionary Population

The origins of the Tuvaluans lie in Polynesia, and there is no archaeological or linguistic evidence to suggest pre-Polynesian settlement in this part of the central Pacific. Both legends and language indicate a predominantly Samoan heritage, with significant Tonga and I-Kiribati (Gilbertese) influence in the northern islands. According to most of the early LMS missionaries there was almost universal acknowledgement among Tuvaluans of a traditional home in Samoa (Murray, 1876; Powell, 1871, SSJ 160; Turner, 1884). The Reverend J.E. Newell was not so convinced and recognised that the almost exclusive use of Samoans as resident pastors, and the visiting missionaries' reliance on them as interpreters and informants, led to an 'inevitable bias in favour of the Samoan ... origin' (Newell, 1895).

More recently, Bayard (1976, 50) has questioned the roles played by both Samoans and Tongans in the peopling of Tuvalu, and suggested that East Uvea was 'the major contributor'. This hypothesis has yet to be substantiated but it can be noted that East Uvea does not feature in any of the recorded narratives concerned with Tuvalu's legendary history (Newell, 1895; Hedley, 1896; Sollas, 1897; Kennedy, 1931; Roberts, 1958). Whatever the voyaging possibilities, and there is a suggestion that the probability of canoe travel between Tonga and Tuvalu would have been low (Levison, Ward and Webb, 1973), linguistic evidence from northern islands such as Nanumea points to strong Tongan connections (Chambers *et al.*, 1978). On another island in the north, Nui, there was a fusing of two races, Samoan ancestors and settlers from Kiribati, which generated a unique cultural heritage and bilingual community.

Initial Settlement

Legendary and genealogical evidence suggests that the islands were settled between the fourteenth and eighteenth centuries. Chambers *et al.* (1978) note that if 25 years are allowed for each generation, then the traditional account for the founding of Nanumea by a Tongan would put this event at around the year AD 1325. This is a much earlier estimate for settlement date than some others based on genealogical evidence; Kennedy (1931) calculated an early sixteenth century origin for Vaitupu's population, and Roberts (1958) considered it likely that the first settlement of Vaitupu and Funafuti took place simultaneously. Nukulaelae, by contrast, is believed to have been settled either from Funafuti or Vaitupu as recently as 1740 (Chambers, 1975; Roberts, 1958). These dates remain highly speculative however, especially as archaeological work throughout the Pacific is pushing back the accepted time depth for settlement on many islands. Tonga and Samoa are now believed to have been settled as early as 1200 and 600 BC respectively (Chambers *et al.*, 1978), and Bayard (1976) postulates 'very tentatively' that the settlement of Tuvalu occurred between 300 and 500 AD, at least 800 years before the earliest date suggested by genealogy reconstruction.

Table 1.1 Selected Population Estimates and Enumerations, 1866-1973

Island	1866 ^a	1876 ^b	1887 ^c	1895 ^d	1901 ^e	1911 ^f	1922 ^g	1931 ^h	1947 ⁱ	1963 ^j	1968 ^k	1973 ^l
Nanumea	6-700	441	624	748	725	655	670	770	746	1051	1076	977
Nanumaga	3-400	235	315	381	438	322	407	424	524	544	585	587
Niutao	700	460	539	606	678	589	565	645	644	797	796	907
Nui	200	233	359	368	429	306	344	410	490	528	569	569
Vaitupu	400	441	481	491	594	493	529	720	728	823	876	948
Nukufetau	220	440	252	274	280	311	274	394	524	655	646	620
Funafuti	100	146	210	224	257	228	218	413	528	687	826	871
Nukulaelae	92	101	172	130	142	176	195	178	282	317	354	343
Niulakita	-	-	-	-	-	4	?	40	21	42	54	65
Tuvalu	26-2812	2497	2952	3226	3543	3084	3202	3994	4487	5444	5782	5887

- Sources: a. Murray (1866), SSJ 157.
b. Turner (1876), SSJ 168.
c. Marriott (1887), SSJ 185.
d. Swayne to Berkeley (23 November 1895) WPHC 4 - 395/1895.
e. Tupper (1901), HMS *Pylades*, RNAS 45.
f. Empire Census (1911) encl. in Quayle-Dickson to May, 18 December 1911, WPHC 4 - 235/1911
g. Island reports (1921/22) WPHC 4 - 3510/1922. Indigenous population only.
h. Census 1931; encl. in Grimble to Fletcher, 23 May 1932, WPHC 4 - 1122/1932
i. Census 1947; Pusinelli (1947). Total population.
j. Census 1963; McArthur and McCaig (1964). Total population.
k. Census 1968; Zwart and Groenewegen (1970). Total population.
l. Census 1973; Groenewegen and Bailey (1975). Total population.

While dating remains problematic, the main outlines of settlement history seem clear enough. Chambers *et al.* (1978, 38-39) summed up the situation well when they wrote:

Over the course of centuries there were many groups of settlers who came to the islands. Most were probably from Tonga and Samoa, though Gilbertese raiders harried some islands and were successful in invading Nui; and there may have been sporadic contact with the Tokelaus to the east and Rotuma to the south.

Aspects of Environment

The coral islands of Tuvalu are small even by 'low' island standards; none exceeds five square kilometres in size, the maximum elevation is around six metres and the tiny atoll and reef island ecosystems have quite limited potentials for supporting human populations. Fresh water supplies are restricted to shallow sub-surface lenses and the soils are on the margins of fertility. The range of plant species which can survive in such a habitat is severely restricted, even though drought is not a problem in Tuvalu that it is in parts of Kiribati to the north. The basic crops of many other parts of the Pacific were not initially available to the first settlers and it is probable that pandanus (*Pandanus pulposus*) assumed a fundamental dietary role while coconuts and other introduced plants were gradually becoming established. The only root crops grown in the group were taro and pulaka, both coarse tubers grown in specially constructed pits which reach down to the fresh water lenses. Breadfruit and bananas, staples in the contemporary diet, did not reach some islands until introduced by missionaries in the 1870s.

So fine was the balance between population and resources that the Tuvaluans pursued a deliberate policy of population control until this was effectively banned by missionaries. Both 'foeticide' and infanticide were practised and according to the missionary Murray (1876), in 1865: 'They were genuine Malthusians. They feared that unless the population was kept down they would not have sufficient food'. A few years later another missionary noted that fear of starvation led the people of Vaitupu 'to make a rule that only two children should be reared in family. The life of a third might be redeemed. Not so the next that might be born' (Gill, 1872, ML B1444; Turner, 1876 SSJ 169; Kennedy, 1931).

A Persistent Myth

In the light of these considerations it is most unlikely that Tuvalu could ever have supported the 20,000 claimed for the pre-missionary population in official publications throughout the twentieth century. A variation of this myth was revived as late as 1977 in the Factsheet Tuvalu where it was argued:

Between 1850 and 1875 Tuvalu (then the Ellice Islands) was raided by 'blackbirders' for labour to work in South America, Fiji, Hawaii, Tahiti and Queensland, and during this time the population was reduced from about 20,000 to less than 3,000.

It is worth noting that a population of 20,000 translates into a crude density of 784 persons per square kilometre which is almost three times the present average density when the population is heavily dependent on imported food supplies. Newton (1967) has effectively demonstrated the absurdity of the 20,000 estimate. Simply by collating the first sets of missionary estimates for 1865 and 1866, and deducting the numbers of Tuvaluans known to have been taken by Peruvian kidnappers in 1863, he calculated that the population of these islands around 1860 amounted to only 'about 3,000 - the figure to which it was imagined to have been reduced' (Newton, 1967).

While Newton's 1860 estimate of around 3,000 is much more realistic than the long-accepted 20,000, it is difficult to accept his suggestion that the pre-missionary population 'was probably stable at about 3000' (Newton,

Table 1.2 Population Estimates, 1865-1911

Year	Nanumea	Nanumaga	Niutao	Nui	Vaitupu	Nukufetau	Funafuti	Nukulaelae	Tuvalu	Source
1865				300		250	100	100		Murray (1865), SSJ
1866	6-700	3-400	700	300	+400	220	100	92		Murray (1866), SSJ 157
1867	300	300	300	200	384					Friend, March 1868
1870	5-600		c460	212	376	202	116	90		Whitmee (1871)
1871				235	408	204	130	90		Vivian (1871), SSJ 159
1872		200	417	253	408	203	125	92		Gill (1872), ML B1444
1873		200	442	210	408	230	135	85		Davies (1873), SSL 34/2/D
1874						260	130			Dupois (1874), HMS Rosario
1876	441	235	460	233	441	440	146	101	2497	Turner (1876), SSJ 168
1878	473	226		250	423	228	152	104		Turner (1878), SSJ 173
1879	442	234	500	263	475					Powell (1879), SSJ 175
1881	534	252	520	288	446	254	180	156	2630	Phillips (1881), SSJ 178
1883	560	270	528	313	448	263	175	130	2687	Marriott (1883), SSJ 180
1884	568	300	539	346	463	267	190	142	2815	Phillips (1884), SSJ 181
1885	595	302	557	336	463	279	208	162	2902	Newell (1885), SSJ 182
1887	624	315	539	359	481	252	210	172	2952	Marriott (1887), SSJ 185
1892	692	373	667	387	462	266	231	118	3196	Goward (1892), SSR 2/142
1892	690	373	615	387	456	270	231	95	3117	Davis (1892), HMS Royalist
1895	748	381	606	368	491	274	224	130	3226	Swayne (1895), WPHC 4-395/1895
1895	736		605	398	521	252	233			Marriott (1895), SSJ 189
1896	700	381	611	416	500	274	227	136	3245	Tax figures, WPHC 4-79/1896
1898	711				525	290	250		c3400	Marriott (1898), SSJ 181
1901	725	438	678	429	594	280	257	142	3543	Tupper (1901), HMS Pylades, RNAS
1909	727	293	623	342	440	319	205	179	3128	Mahaffy (1909), WPHC 4-44/1910
1911	655	322	589	306	493	311	228	176	3080	Empire Census (1911), WPHC 4-44/1910

1967). Documentary evidence for the period before 1865 is very sketchy, but mention is made of inter-group warfare, mishaps at sea while on fishing trips or inter-island canoe voyages, and the transmission of infectious diseases to small populations with no immunity by Tuvaluans visiting kin on neighbouring islands. Numbers of residents on the small islands probably fluctuated quite markedly over time in response to these sorts of processes.

An Expanding Population, 1865-1900

During the 1860s, missionaries associated with LMS began to make regular voyages to Tuvalu, and from 1870 the group was visited on an annual basis. A considerable number of population estimates and counts were made over the last 35 years of the nineteenth century, and most of those at our disposal are included in Table 1.2. The interesting feature of these figures is the general, if differential increase in numbers of residents on the eight permanently inhabited islands during a period when most Pacific Island populations were believed to be experiencing rapid decline. During the late nineteenth century in Tuvalu, the most significant demographic trends were rising levels of fertility and declining mortality - trends which were to become common in other Polynesian populations fifty years later in the 1920s and 1930s.

A number of writers have commented on the speed with which Samoan pastors were able to transform aspects of Tuvalu social organisation and behaviour (Kennedy, 1931; Brady, 1975; Macdonald, 1971; Munro, 1979). Kennedy (1931), for example, has stated that by the early twentieth century a great number of ceremonies associated with ancient rites and customs, games, courtship, marriage, birth, adult initiation, and death had been abandoned. Brady (1975) believes that long-term compatibility with Samoan culture contributed significantly to acceptance of Samoan missionaries, and thereby to rapid acceptance of Christianity. The Samoan pastors demanded, and were eventually given, respect, authority and badges of rank previously accorded to high-ranking chiefs and, from this position of strength in the political system, they made every effort to remove all that pertained to the 'poo uliuli' or 'days of darkness'.

The resident Samoan pastors and their itinerant European superiors acted quickly to abolish some traditional constraints on population growth. Infanticide and abortion were banned and, although the mission ruling was not always adhered to, both were practised on a much reduced scale from the 1870s. As well as having an impact on birth rates, mission policies also influenced mortality levels. On the one hand Samoan pastors were successful in putting a stop to inter-group warfare and the socially sanctioned killing of trouble-makers (Turner, 1876, SSJ 168; Chambers, 1975). Deaths resulting from misadventure at sea declined as Tuvaluans came to rely on the visiting mission and trading vessels for inter-island travel.

The net demographic effect of mission influence in Tuvalu was steady growth in population between 1870 and 1900. Numbers rose by more than 40% over the last 25 years of the century - from just under 2,500 in 1876 to just over 3,500 in 1901 (Table 1.2). There were considerable fluctuations in the totals resident on particular islands in different years, and many of these can be accounted for by inter-island visiting which was then, and still is, an important feature of Tuvaluan life. Two examples from early in the period under discussion demonstrate the problem of comparing figures cited for specific islands. In 1866 Murray (SSJ 157) stated that his population estimate (300) for Nui included 'a full 100' from other islands who were either temporary or permanent residents. Whitmee (1871) noted that 30 or 40 visitors from Niutao were not included in his estimate of 376 for Vaitupu's population in 1870. Obviously there is a mixture of *de jure* as well as *de facto* populations in the record summarised in Table 1.2. For this reason, and because the numbers involved are so small, we have not attempted any analysis of population change for individual islands.

Changes initiated in Tuvaluan society by resident Samoan and itinerant European missionaries had the most significant impact on population trends in the latter part of the nineteenth century. Other factors, such as the low incidence of labour recruiting after 1863 and the limited evidence of epidemic disease mortality, are also important in the context of Tuvaluan population growth at this time. These two processes are considered in turn.

Overseas Labour Migration

Raids by Peruvian slavers in 1863 initiated overseas labour migration among the Tuvaluans. The ships called at most islands in the group, but only Nukulaelae and Funafuti lost significant proportions of their residents to the Peruvians. At Nukulaelae, about 200 from an estimated population of 300 were enticed on board two vessels, with the promise of being taken to a nearby island for six months where they would make coconut oil and learn Christianity before being returned home with good payment and mission teachers (Murray, 1876). At Funafuti about 180 adults from a total population of about 300 were similarly inveigled aboard (Murray, 1876). The demographic effects of this forced migration were profound; Nukulaelae and Funafuti both lost over 60% of their residents in a single year. When Whitmee visited Nukulaelae in 1870 he found that two-thirds of the adult population were women and children (Whitmee, 1871). At Funafuti in the following year Powell (1871, SSJ 160) observed that women greatly outnumbered men, and children slightly outnumbered the women.

Population recovery appears to have been fairly rapid, however. Although there were only 22 adult males on Funafuti in 1873 (Davies, 1873, SSL 34/2/D), by 1883 there was an 'enormous' number of children (Le Hunte, 1883, HMS *Espiegle*, WPHC 4-159/1883), and in 1893 the population numbered 230, only 70 less than the 300 estimated to be on the island before the Peruvian raid (Goward, 1892, SSR 2/142). In this regard, Hedley (1896) notes that following this forced migration in 1863, Funafuti 'received an immigrant population from various sources. Colonists from Samoa, the Tokelaus, Manihiki, and other of the Ellices settled in the depopulated village'. On Nukulaelae replacement was somewhat slower because the island was less accessible to prospective immigrants due to the vagaries of shipping. The total population in 1892 was stated to be around 100 - about one-third of the pre-Peruvian estimate (Table 1.2).

Following this episode, labour migration from Tuvalu was limited in scope until the early twentieth century. The Samoan pastors were strongly opposed to labour migration and this, coupled with small resident populations, made islands in this group an unpromising recruiting field compared with some in Kiribati to the north (Bedford and Macdonald, 1980). Between 1870 and 1900 recruiting vessels flying many flags called at Tuvalu but only around 100 people were signed on for work in Fiji, Hawaii, Samoa, possibly Tahiti, and in the mid-1890s, Australia. Usually the vessels involved called at islands in Tuvalu en route to Kiribati where the real business of recruiting was undertaken. As the numbers of Tuvaluan recruits indicates, this group of small atolls and reef islands was hardly the happy hunting ground of 'blackbirders' which tradition holds was the case. The claim, perpetuated in annual reports published by the Colonial Office throughout the twentieth century, that thousands of Tuvaluans were kidnapped for work overseas, cannot be substantiated from the quite detailed mission records in the nineteenth century. Labour migration was not an 'evil' which, in association with measles, reduced the race 'from over 20,000 souls to under 3,000' (Colonial Office, 1935, 4). Except for the impact of the Peruvian raids on Funafuti and Nukulaelae, overseas labour migration was not an important variable affecting the course of population change before 1900.

Disease Mortality

There is also little evidence in the mission record of Tuvaluan population change from the mid-1860s of excessive mortality due to the introduction of diseases such as measles - a cause of extensive population decline in this island group according to successive Colony annual reports (see, for example, Colonial Office, 1935). There are no reports of devastating measles epidemics in Tuvalu like the one in Fiji in 1875 which is believed to have reduced the population by around 20 (McArthur, 1967). Disease mortality is mentioned in the missionaries' journals, but the numbers involved are small. Thus an epidemic of dysentery at Nukulaelae and Funafuti in 1874 is reported to have claimed only one life (Turner, 1874, SSJ 165), while at Niutao ten years later an influenza epidemic resulted in four deaths (Newell, 1885, SSJ 185). A more serious outbreak of whooping cough accompanied a visit of the LMS mission ship John Williams to Nui and Nanumaga in 1894 - the total number of deaths in this case was nine (Swayne to Thurston, 17 January 1895, WPHC 4-42/1895). Given that the combined population of these two islands was around 750 (Table 1.2), it is evident that whooping cough did not lead to a substantial reduction in numbers.

The most serious incidence of disease-induced mortality for which we have documentary evidence was associated with an outbreak of dysentery on Niutao in 1884 following the return of a group who had been visiting kin on Nanumaga. The resident Samoan pastor tried to isolate the returnees from the rest of the community but no one would consent to this and the disease spread killing 41 people (Newell, 1885, SSJ 185). Strong customary links between groups on different islands generated considerable inter-island visiting (or malanga), and no doubt fostered the dissemination of contagious diseases. However, mortality caused by outbreaks of sickness did not decimate island populations - if this had been the case the resident Samoan pastors should have advised their itinerant European supervisors who, in turn, should have reported the events in their tour diaries.

The Situation Around 1900

While the available statistics on island populations in the latter half of the nineteenth century reveal considerable fluctuations in numbers, the trend for the group as a whole is one of steady growth (Table 1.2). In 1905, when the Reverend S.H. Davies visited Tuvalu for the first time in three decades, he was struck by the fact that the population had 'increased and in some cases doubled in the past 32 years' (Davies to Thompson, 29 November 1905, SSL 49). He observed that there was 'a more varied and larger food supply', and much of the credit for this goes to the LMS missionaries and pastors for introducing new edible plant species. However the increasing population was also a matter of some concern to missionaries and colonial administrators alike, especially as it inflated 'an already present overall land hunger' (Brady, 1974, 130). As early as the 1890s resettlement was being suggested as a solution to what was perceived as an impending overpopulation problem on some islands (Marriott, 1898, SSJ 192; Campbell to O'Brien, 25 May 1901, WPHC 4-102/1901). Radically changed demographic circumstances in the early twentieth century led to a shift in concern away from excessive growth to uncharacteristic decline, however. The two processes erroneously believed to have reduced Tuvalu's population substantially in the late nineteenth century - labour migration and disease mortality - assumed much greater significance in the history of population change after 1900.

Decline and Recovery, 1900-1931

Between 1901 and 1911 there was a sharp decline in numbers resident in Tuvalu (Table 1.2). At the time of the 1911 Empire Census, the total

enumerated in the group was 3084 - almost 500 less than the number recorded by Tupper in 1901. While Tupper's figures may be somewhat high (his total is 300 above the figure cited in the island tax records for 1896), there is no doubt that numbers fell in the first decade of the twentieth century. The record of births and deaths for the period 1903 to 1933 indicates that there were more deaths in most years, until after 1913 when natural increase once again became the norm (Table 1.3). Accompanying, and contributing to, rising mortality levels in the early twentieth century was extensive circulation of labour between Tuvalu and Ocean Island, the site of a phosphate extraction industry from 1900. The Protectorate government favoured labour migration and there was no shortage of recruits willing to leave their islands for a year or two on contract. With the introduction of policies which fostered migration and attempted to combat morbidity and mortality, the colonial government superseded the LMS as the primary force for change in population numbers and structure.

Labour Circulation

The first Tuvaluans went to Ocean Island in 1900, and over the subsequent decade the numbers employed in phosphate mining in any given year ranged from between 60 to 120 (Chambers, 1975). The period of employment under contract was generally for two years, and the great majority of migrants were young men. On completion of their contracts migrants were returned to Tuvalu and a new batch of recruits was sought for work on Ocean Island. In 1906, for example, the S.S. Inger took 42 young men from Vaitupu and returned an undisclosed number to Nanumea (Newell, 1906, SSL 49).

Circular migration between Tuvalu and Ocean Island had two immediate effects in the communities of origin. On the one hand a spate of church building in the early years of the twentieth century was a function of the cash earned by migrant labour (Newell, 1905, SSL 49; Chambers, 1975; Koch, 1978). On the other, Tuvaluans returning from a period of work on Ocean Island brought back a variety of infectious diseases which contributed significantly to the decline in population between 1900 and 1913. Dysentery was a major cause of mortality over this period, especially 'a severe epidemic ... which extended throughout the group ... during 1907 and 1908' (Smith-Rewse, 1912, WPHC 4-1442/1914). Nanumea, a recruiting base for Ocean Island, was particularly hard hit, and the deaths reported for these two years total 57 and 81 respectively.

In the 'island reports' submitted annually by District Officers little information is given on labour circulation between Tuvalu and Ocean Island. Figures for numbers of absentees from the different islands are available for various years from 1916, and these indicate that at least 250 people were living outside their islands of usual residence each year. In some years (e.g. 1922 and 1933) the total exceeded 600. While many of these people would have been visiting other islands in Tuvalu, a significant proportion were probably absent working on Ocean Island. It is difficult to offer firm evidence for this assertion on the basis of data contained in the annual 'island reports'. However, for the year 1932-33 it can be established that of 611 Tuvaluans stated to be absent from their islands of usual residence, 277 were registered as visitors elsewhere in the group; the other 334 people were living in other places (Island reports, 1932-33, WPHC 4-676/1934).

Mortality and Medical Services

Throughout the first decade of the twentieth century, there was a tendency for deaths to exceed births each year - a situation which led some government officials to view the Tuvaluans' demographic future with considerable pessimism. In 1909, for example, Arthur Mahaffy, then Resident

The Balance of Births over Deaths, 1903-1933

Island	1903	1905	1907	1909	1912	1913- 1914	1915- 1916	1917- 1918	1920- 1921	1922- 1923	1927- 1928	1930- 1931	1932- 1933
Nanumea	+ 3	- 6	-27	+17	- 3	-12	+15	+13	+ 7	+10	+ 1	+18	+16
Nanumaga	- 9	-10	-15	+ 5	- 7	0	+ 9	+25	+ 4	+ 2	+ 2	+ 6	+10
Niutao	+ 7	-13	-32	+ 7	- 1	-16	+ 1	+17	+ 6	+21	+10	+ 3	+16
Nui	-13	-11	-20	0	- 2	+ 8	- 1	0	+10	-10	- 1	- 1	+ 1
Vaitupu	-12	-11	-36	+ 8	- 6	+17	+14	+11	+19	+10	+15	+19	- 4
Nukufetau	?	+ 2	+ 3	+11	- 5	+ 4	0	+ 3	+12	+ 9	+12	+ 2	+ 6
Funafuti	0	- 3	-24	+ 3	+ 3	0	+ 4	+ 6	+ 2	+ 4	+10	+12	+10
Nukulaelae	+ 6	- 1	+ 3	+ 1	+ 7	+ 5	?	+ 4	0	+ 2	+ 4	+11	0
Niulakita	-	-	-	-	-	-	-	-	-	-	-	-	-
Tuvalu	(-18)	-53	-148	+52	-14	+ 6	(+42)	(+75)	+60	+48	+53	+70	+55

Sources: 1903-1912 Annual Report for the Ellice Islands for the year 1912, WPHC 4-1442/1914.

1913-14, Island reports, WPHC 4-2952/1914 and 581/1915.

1915-16, Island reports, WPHC 4-3091/1916 and 318/1917.

1917-18, Island reports, WPHC 4-503/1919.

1920-21, Island reports, WPHC 4-651/1922.

1922-23, Island reports, WPHC 4-1141/1924.

1927-28, Island reports, WPHC 4-1917/1930.

1930-31, Island reports, WPHC 4-1406/1932.

1932-33, Island reports, WPHC 4-676/1934.

Commissioner of the Gilbert and Ellice Islands Colony, speculated that the period of population decline would lead to the decadence of the race (Mahaffy, 1909, CO 225/86). Of particular concern in this regard was the incidence of infant mortality - as Smith-Rewse (1912, WPHC 4-1442/1914) pointed out 'the proportion of deaths every year of very young children to the total number born is very high'. Few figures are available to test this assertion, but during the last six months of 1912 on Nanumea, for example, Smith-Rewse reported that 'out of a total of 19 deaths 7 were children less than one year of age' (Smith-Rewse, 1912, WPHC 4-1442/1914).

In the light of this concern with population decline, it is hardly surprising that provision of medical treatment and improvements in hygiene in the villages assumed high priority in the policies of District Administration officials. Annual reports for Tuvalu contain lengthy reviews of the health and wellbeing of the people and some statistics on the causes of death. The most prevalent disease was seen to be consumption in its various forms (later identified as tuberculosis) and it was generally accepted that it 'can be placed in the front rank as a cause of death among these people' (Smith-Rewse, 1912, WPHC 4-1442/1914). Although every island had its local hospital, and a larger District hospital was nearing completion in Funafuti in 1912, it was not until patients severely affected by the disease were kept isolated from the general population that the incidence of 'consumption' began to decline.

'Island reports' for the years between 1903 and 1933 indicate that the period of population decline was short-lived. By 1909 births again were exceeding deaths for Tuvalu as a whole, although there were marked fluctuations in the level of natural increase at the island level. The fluctuations were not only due to differences in disease mortality and variable sanitary conditions in villages. Birth rates also varied markedly from year to year, in large measure in response to the incidence of absenteeism among young men. The impact of labour migration on fertility levels in small populations was not overlooked by administration officials: in the late 1910s restrictions were placed on recruiting from certain islands in Tuvalu in order to promote higher birth rates (Smith-Rewse, 1912, WPHC 4-1442/1914).

From 1913 the statistics contained in island reports indicate that the population of Tuvalu was increasing. Although there is some variation in the size of the indigenous population in certain years depending on the source (for example island reports for the year 1920-21 give a total of 3,250 Tuvaluans while a census in 1921 indicates that there were 3,429 resident in the group), it seems that numbers never fell below 3,000. By 1931, when a detailed census was carried out in the Colony, the indigenous population had reached 3933 - the highest number of resident Tuvaluans ever recorded to that date. 'Decadence of the race', which had given Mahaffy so much cause for alarm in 1909, had been well and truly arrested by this stage. The major concern with demographic trends in the early 1930s was increasing population densities on the small islands. Impending overpopulation rather than depopulation was perceived to be the critical issue.

Continued Growth, 1931-1973

The history of population change in Tuvalu since 1931 is reasonably well documented in official censuses (Pusinelli, 1947; McArthur and McCaig, 1963; Zwart and Groenewegen, 1968; Groenewegen and Bailey, 1973) and academic research reports and publications (Bedford, 1967; Brady, 1970 and 1978; Chambers, 1975; Koch, 1978; Macdonald 1971; Veltman, 1979; White, 1965; Wilson, 1979). Space limitations prevent a detailed review of demographic developments here, and we confine our remarks to two issues: the role of migration to other parts of the Gilbert and Ellice Islands Colony as a regulator of population growth in Tuvalu, and the pattern of change in resident numbers on the different islands between censuses over the period 1931 to 1973.

Migration for Employment

In 1931, 96% of all Tuvaluans enumerated in the former Gilbert and Ellice Islands Colony were resident in their home island group (Table 1.4). At the time of this census very small numbers were living on Ocean Island, or elsewhere in Kiribati. Much larger numbers were absent from Tuvalu in other years around this time, but it is true to say that before the Second World War comparatively few Tuvaluans had migrated to other parts of the former Colony with the objective of staying there for periods of more than two or three years.

Table 1.4 Population Distribution, 'Polynesians' 1931-1973¹

Place of Enumeration	Census									
	1931		1947		1963		1968		1973	
	No.	%	No.	%	No.	%	No.	%	No.	%
Tuvalu	3917	95.8	4403	86.9	5021	74.2	5532	74.1	5652	73.5
Kiribati										
Tarawa	4	0.1	100	2.0	714	10.6	1054	14.1	1064	13.8
Other Islands	20	0.5	69	1.4	182	2.7	182	2.5	151	2.0
Total Kiribati	24	0.6	169	3.4	896	13.3	1236	16.6	1215	15.8
Ocean Island	52	1.3	441	8.7	727	10.7	600	8.0	632	8.2
Line Island	-	-	5	0.1	44	0.7	44	0.6	53	0.7
Phoenix Island	30	0.7	16	0.3	34	0.5	-	-	-	-
Ships	66	1.6	32	0.6	41	0.6	53	0.7	142	1.8
Total	4089	100.0	5066	100.0	6763	100.0	7465	100.0	7694	100.0

1. In all censuses except the one in 1931 the term 'Polynesian' is used to cover people from Tuvalu as well as other islands in the eastern Pacific. Very few Polynesians born outside the former Gilbert and Ellice Islands were enumerated in these censuses however. The term Polynesian can be regarded as being virtually synonymous with Tuvaluan in this case.

Sources: See Table 1.1

As in other parts of the Pacific, the Second World War marks a watershed in the history of socio-economic change in Tuvalu. The hostilities did not have a lasting impact, but the decision by Britain to develop South Tarawa in the Gilbert Islands as the commercial, administrative and major service centre for the Colony had a very profound effect on the course of demographic change in Tuvalu. From the mid-1940s increasing numbers of Tuvaluans moved north to Tarawa to take up offered jobs or to seek wage employment in the evolving urban centre. In 1947, 100 Polynesians (virtually all Tuvaluans) were enumerated on Tarawa compared with 4 in 1931. Sixteen years later, in 1963, over 700 were in residence on this island - almost 11% of the total Polynesian population in the Colony at that time.

In addition to this intensifying drift to the only real town in the area, more Tuvaluans were taking up employment on Ocean Island. In 1947 over 400 were enumerated on the island and in 1963 the total exceeded 700. Many of the workers by this time were long-term employees of the British Phosphate Commission - circulation of labour on contract still took place,

but there was also a 'resident' Tuvaluan population on Ocean Island by the early 1960s. Other sources of wage employment for much smaller numbers were the commercial plantations on Fanning and Washington Islands, and the schools and hospitals scattered through the Gilbert group. One result of this migration away from the densely populated small islands of Tuvalu, was that just over one quarter of all Polynesians in 1963 were resident elsewhere in the Colony.

The proportion of Polynesians living outside Tuvalu did not change much between 1963 and 1973, although the relative importance of Tarawa as a destination increased somewhat (Table 1.4). At the time of the censuses in 1968 and 1973 over 1,000 Polynesians were living on Tarawa in comparison with around 5,500 in Tuvalu. Obviously migration to the urban area on this island, as well as to the site of the phosphate mine on Ocean Island, had a profound impact on the course of demographic change in Tuvalu between 1931 and 1973. Other factors such as rising fertility levels, declining mortality, and overseas resettlement of Vaitupuans in Fiji were also important, but the history of population growth over this period can only be understood in the context of internal migration.

Population Distribution and Growth

Within Tuvalu, the pattern of population distribution changed little between 1931 and 1973 (Table 1.5). There were minor fluctuations between censuses, but even Funafuti, the centre of administration, commerce and transportation in Tuvalu, only increased its share of the group's total by 4.5% during the 42 years.

Table 1.5 Population Distribution and Growth, 1931-1973

Island	Population Distribution ¹					Population Growth ²			
	1931	1947	1963	1968	1973	1931-1947	1947-1963	1963-1968	1968-1973
Nanumea	19.3	16.6	19.3	18.6	16.6	-0.2	2.2	0.5	-1.9
Nanumaga	10.6	11.7	10.0	10.1	10.0	1.4	0.2	1.4	*
Niutao	16.1	14.4	14.6	13.8	15.4	*	1.3	*	2.7
Nui	10.3	10.9	9.7	9.8	9.7	1.2	0.5	1.5	*
Vaitupu	18.0	16.2	15.1	15.2	16.1	*	0.8	1.3	1.6
Nukufetau	9.9	11.7	12.0	11.2	10.5	1.8	1.5	-0.3	-0.8
Funafuti	10.3	11.8	12.6	14.3	14.8	1.6	1.7	3.7	1.1
Nukulaelae	4.5	6.3	5.8	6.1	5.8	3.0	0.8	2.2	-0.7
Niulakita	1.0	0.5	0.8	0.9	1.1	**	**	**	**
Tuvalu	3994	4487	5444	5782	5887	0.7	1.2	1.2	0.4

1. Percentage of total in Tuvalu resident on each island. The relevant island totals are given in Table 1.1.

2. Average annual rate of population growth in the intercensal period.

* population change less than 0.1% per annum.

** numbers too small for calculation of growth rate.

Sources: Data contained in Table 1.1; Veltman, 1979.

While the distribution pattern remained remarkably constant, average annual rates of population growth between intercensal periods were quite variable (Table 1.5). Depending largely on the extent of migration to Tarawa and Ocean Island, growth was either relatively slow by Pacific standards (i.e. less than 2.0% per annum), or there was an absolute, if short-term, decline in numbers of residents. For the group as a whole, rates never averaged out at more than 1.2% per annum; a considerably lower growth rate than for Polynesians within the former Colony as a whole (Veltman, 1979).

During the most recent intercensal period (1973 to 1978) the situation has been totally transformed by the Tuvaluans' decision to become an independent nation. Thousands of Tuvaluans have left their jobs and homes in Tarawa, Ocean Island and other parts of Kiribati, in order to take up residence in their new country. This represents the beginning of a new phase in the population history of Tuvalu; a phase which is the subject of considerable analysis in subsequent chapters in this volume.

CHAPTER 2

GROWTH AND DISTRIBUTION OF THE POPULATION SINCE 1973

Sheila Macrae

Introduction

The Separation in 1975 of the Gilbert and Ellice Islands Colony into two groups of islands later to become the independent nations of Kiribati and Tuvalu was a unique event in the Colony's history. It occasioned a large movement of Ellice Islanders back to Tuvalu and a much smaller migration of Gilbertese from Tuvalu to Kiribati. Such constitutional and migratory changes will occur only once in the history of the islands. The period since the 1973 Census has therefore been studied separately from earlier inter-censal periods, as comparison is considered inappropriate. Likewise, it will be difficult to compare this inter-censal period with other periods in the future.

Rate of Growth

The total number of persons of all ethnic components enumerated in Tuvalu on 27th May 1979 was 7349. This compares with 5887 persons enumerated on 8th December 1973 in the same islands (then the Ellice Islands). This increase of 1462 persons (24.83%) represents an overall growth rate between the two censuses of 4.06% per annum. Such a high growth rate reflects the extensive in-migration into Tuvalu and masks the effect of any excess of births and deaths. Records of movement in and out of Tuvalu in the period (the movement being mostly within the Colony) are extremely limited, but an attempt was made to exclude the effects of this movement in the determination of an inter-censal growth rate applicable to Tuvalu. This was done by the construction of an approximate de jure population from the numbers of persons in the two censuses enumerated in the whole of the Colony and in Nauru and including other temporarily overseas whose home island* was one of the islands of Tuvalu. This gave 8751 persons in 1973 and 9457 persons in 1979 who considered their home island to be in Tuvalu, indicating an inter-censal growth rate for both sexes combined of 1.42% per annum (see previous chapter), and the difference between this growth rate of the 'home islanders' and that of the de facto total population of Tuvalu clearly demonstrates the extent and nature of the movement of Tuvaluans in the inter-censal period (discussed in detail in Chapter 7). Further confirmation is obtained from the application of the current rate of natural increase** of 0.87% per annum to the de facto indigenous population of the Ellice Islands in 1973. With no migration, the population of 5868 in 1973 would have increased only to 6153 persons in 1979, whereas the enumerated population was 7271.

This overall growth rate of 1.42% per annum is therefore the most reliable that can be estimated for the period since the 1973 Census. The

* Note: 'home island' is not the same as 'ethnic origin' (see Chapter 7).

** This is defined as the difference between the crude birth rate and the crude death rate and derived from 1979 census data (see Chapters 5 and 6). It would have been more correct to apply the inter-censal average rate of natural increase, but this could be calculated neither directly from the registers of births and deaths since these were incomplete nor from the 1973 and 1979 census data because of their non-comparability.

proportion of this which is due to natural increase cannot be ascertained, but it has been assumed to be of the order of the rate of natural increase extant at the time of the 1979 Census (0.87% per annum). The difference between the sexes (1.06% per annum for males and 0.68% per annum for females) may account for much of the difference in the growth rates of male and female 'home islanders'.

Table 2.1 Persons in 1973 and 1979 who gave their Home Island as being in Tuvalu

	1973			1979		
	M	F	T	M	F	T
Enumerated in:						
GEIC	3774	4107	7881	3951	4296	8247
Nauru	361	258	619*	438	276	714
Others overseas	239**	12**	251*	475	184	659
Less: those enumerated in Kiribati 1978 and Tuvalu 1979			-	- 78	- 85	-163
TOTAL	4374	4377	8751	4786	4671	9457

Average annual growth rate in inter-censal period of 5.47 years:

M	1.65%
F	1.19%
T	1.42%

* Data on Ellice Islanders obtained indirectly from records of the Nauru Phosphate Commission and from GEIC Government records.

** Sex ratio obtained from Veltman (1979).

Distribution

Distribution by Island

The distribution of the population enumerated in 1979 on the islands of Tuvalu is shown in Basic Table 1, and some of the data are abstracted into Table 2.2 for comparison with those from the 1973 Census. It can be seen that even with an overall increase in the total de facto population of Tuvalu, only two of the islands - Vaitupu and Funafuti - have experienced a substantial increase in the size of their populations, while two others - Nanumea and Niutao - have experienced a decrease in numbers. The increase in numbers on Funafuti represents an average increase of 16.3% per annum - four times the overall rate of increase of the total de facto population of Tuvalu. The percentage distribution of the total population between the islands indicates that even with an absolute increase in numbers on some islands, the size of most islands' populations relative to the others has fallen slightly. This is mainly due to the fact that 28.9% of the total population in 1979 live on Funafuti whereas in 1973 only 14.8% did so. Generally, the island sex ratios altered little between the censuses, with most islands experiencing a slight fall. The rise in the ratio in Funafuti probably reflects patterns of migration to this 'urban' centre (discussed in Chapters 7 and 9). The population density on Funafuti has increased almost 2½-fold in the inter-censal period to a level of three persons per acre, which is more than twice that of the second most densely populated island, Niutao. The population density of Vaitupu has increased by approximately one-half, but it is still at less than one person per acre, as on all other islands.

Distribution by Ethnic Origin

A comparison of the distribution of the population by ethnic origin in 1973 and in 1979 could not be made because of the problems concerning the reclassification of ethnicity between the two censuses. For 1979, it can be seen from Basic Table 1 that Pacific Islanders other than Tuvaluans (Micronesians, Melanesians, etc.) were enumerated on all the islands of Tuvalu, but were mostly to be found on Funafuti. The non-Pacific islanders (mostly Europeans) were concentrated even more heavily on Funafuti, with all but three of those not there being on Vaitupu. These two groups of non-Tuvaluans together only represent 3.1% of the total population (although 6.7% of Funafuti) and therefore their presence is of little consequence in the ethnic composition of Tuvalu.

Table 2.2 Total De Facto Population by Island in 1973 and 1979

Island	Census	No. of Persons	% of Total	Sex Ratio*	No. per Acre	Increase in Number 1973-79	Average Annual Increase
Nanumea	1973	977	16.6	87	1.02	-133	-2.7%
	1979	844	11.5	83	0.88		
Nanumaga	1973	587	10.0	79	0.85	18	0.6%
	1979	605	8.2	76	0.88		
Niutao	1973	907	15.4	81	1.45	- 41	-0.9%
	1979	866	11.8	74	1.39		
Nui	1973	569	9.7	91	0.81	34	1.1%
	1979	603	8.2	91	0.86		
Vaitupu	1973	948	16.1	84	0.68	325	5.4%
	1979	1273	17.3	80	0.92		
Nukufetau	1973	620	10.5	81	0.84	6	0.2%
	1979	626	8.5	72	0.85		
Funafuti	1973	871	14.8	101	1.26	1249	16.3%
	1979	2120	28.9	110	3.08		
Nukulaelae	1973	343	5.8	79	0.76	4	0.2%
	1979	347	4.7	86	0.77		
Niulakita	1973	65	1.1	124**	0.63	0	0
	1979	65	0.9	150**	0.63		
TOTAL	1973	5887	100	86	0.93	1462	4.1%
	1979	7349	100	88	1.16		

* Males per 100 females.

** Based on very small numbers.

CHAPTER 3

SEX AND AGE

Sheila Macrae

Census Questions

Enumerators were required to note the sex of the respondent and to select an individual 'Male' or 'Female' card accordingly. It is considered that any errors in such a process, e.g. concerning the sex of young children, were negligible. On the individual census cards, question D required the enumerators to record the date of birth, giving day, month and year, where possible. Where such information was supported by documentary evidence (such as birth cards (see below), birth certificates, bible inscriptions, baptismal records, etc.) this was noted. The enumerators were instructed to give special attention to this question and to help the respondents in the estimation of their ages, if necessary by reference to a historical calendar or to documents available for other family members.

In the processing of the data, dates of birth were first translated into ages by subtracting the month and year of birth from the month and year of the census*, distributing appropriately those for whom month of birth was not given. The de facto population was then tabulated by sex and single years of age (see Basic Table 3).

Birth Cards

As in the 1973 Census, birth cards - prepared from the registration records kept (albeit incompletely) in the islands since the beginning of the century - were distributed prior to the census, in an effort to reduce the errors caused by age mis-statements. Of a total of 8459 cards recorded (though not by age) as having been prepared and distributed, the duplicates of 8066 (95%) were returned to the census office for checking. From these it was learned that, of the people for whom cards had been written and returned, 19% had since died and 19% either moved from their island of birth and could not be located in the time available or were simply unknown. The remaining 62% were known to have been given to the individuals concerned, who constituted 63% of the total de facto indigenous population**. The percentage of the population for whom the existence of any form of documentary evidence of birth (birth cards, bible records, baptismal certificates, etc.) was noted on the census forms was 66%. (Of course, in addition, many people living had not had their births registered, so could not be issued with birth cards.)

Analysis of the distribution of birth cards** by age group of recipient (only possible for both sexes combined) shows (see Table 3.1) an extremely low percentage for the youngest age group and variable, but high, percentages for most other age groups except the oldest. The lower percentages at the

* Initially this computation was done incorrectly, with just the year of birth being subtracted from the year of the census, and taking no account of the fact that the census was in May. All ages had to be checked and, if necessary, re-coded.

** It is assumed that the non-returned birth cards were, in the main, those for dead or unknown persons, and that only a small proportion had been distributed. The percentages shown in Table 3.1 are therefore probably slightly lower absolutely than is correct but are assumed to be correct relative to each other.

younger ages indicate perhaps that the registration of births has not been maintained as well in recent years as it had been further in the past. It may also indicate that many very young children had moved from their island of birth and could not be traced within the time available, but it is more likely that there are more cards distributed to adults as they are better known in a community and therefore easier to find. (Analysis of the distribution of birth cards by island was not possible.)

Table 3.1 Percentage of the De Facto Indigenous Population by Five Year Age Groups to Whom Birth Cards Were Distributed

Age Group ¹	No. of Birth Cards Distributed	Total Persons ²	% of Persons with Birth Cards
1- 4 ³	99	590	17
5- 9	361	699	52
10-14	616	968	64
15-19	820	1021	80
20-24	543	712	76
25-29	413	582	71
30-34	285	412	69
35-39	226	324	70
40-44	267	345	77
45-49	244	328	74
50-54	244	330	74
55-59	176	308	57
60-64	149	218	68
65-69	89	147	61
70-74	74	98	76
75+	29	127	23
Total	4635	7271 ⁴	63

1. These refer to years of birth 1975-78, 1970-74, 1965-69, etc. and are not the strictly accurate age groups at the time of the census.
2. These are the total numbers of people born in the corresponding years 1975-78, 1970-74, 1965-69, etc. and do not match the age groups corrected for the date of the census.
3. There were no records available for children born in 1979.
4. Including 62 children aged 0.

The birth cards themselves also introduced an element of error into the age recording at the census, since errors of transcription from the registers or in the registers themselves must inevitably have occurred to a certain extent. However, this disadvantage of the scheme was much outweighed by the advantages which accrued not only because 63% of the indigenous population had birth cards distributed to them (and 66% had their ages supported by some documentary evidence) but also because these documents aided the estimation of the ages of other family members. As a consequence, the age reporting errors (see below) are small and it is therefore considered that the effort involved in the writing and distribution of birth cards and the checking of other documents was probably justified. It will not have to be repeated at the next census, since each recipient retained one copy of his/her card. The birth certificates now issued at the time of registration of a birth should provide the necessary documentary evidence of date of birth of those children born after 1978.

Accuracy of Age Reporting

The issue of birth cards prior to the census, as described above, was considered potentially beneficial because, in common with many Pacific Islanders, many people in Tuvalu do not know their age or their date of birth. Therefore, in the absence of documentary evidence, it is necessary to estimate ages and dates of birth by indirect means (such as by reference to a historical calendar - this was also used in the Tuvalu census). Such estimates are clearly subject to substantial errors, due both to lack of knowledge of age and also to preferences for certain ages or years of birth. This type of 'digital preference' can cause 'heaping' of the population at certain ages, and its prevalence may be regarded as a rough measure of the reliability of the recorded age distribution.

The extent of such digital preference may be estimated by means of Myers 'blended' index (Myers, 1940). The indices for each digit in the age range being investigated (usually 13-62 years to exclude the influence of age mis-statements in the youngest two age groups and in the oldest population) is weighted so that in the absence of any digit preference it is 10%. Preference for a particular digit raises this percentage and avoidance lowers it. The summary index gives an indication of the overall level of digit preference, and it can be seen from Table 3.2 that this index is, for a developing country, low for both sexes. Thus the systematic errors due to digit preference are few. Studying the percentages for each digit shows that there was a very slight preference amongst males and females for ages with end-digits 0, 6 and 9 (and a slight avoidance of end-digits 1 and 2). These deviations are really quite minor compared with some age heaping errors that have been found in other censuses but nonetheless warrant a few comments.

Table 3.2 Preference for Each Unit Digit of Age Shown by Males and Females in the Indigenous Population*

Myers 'Blended' Index			
Unit Digit	Percentage Distribution		
	Males	Females	
0	10.8	11.0	
1	8.9	8.8	
2	8.6	9.3	
3	9.6	9.6	
4	9.1	9.2	
5	9.1	9.7	
6	10.7	11.0	
7	10.6	9.7	
8	9.9	10.8	
9	12.8	11.0	
Myers 'Blended' Index	4.9	3.4	

* Based on age range 13-62.

Percentage of population with ages ending in digits 0-4 and 5-9:

Age Groups ending in:	Males	Females
0-4	47.0%	47.8%
5-9	53.0%	52.2%
Discrepancy from 50%	3.0%	2.2%

Since respondents were asked for date of birth rather than age, Myers index was also calculated for ages derived from the annual birth cohorts (obtained by subtraction of years of birth from the year of the census taking no account of the month of the census). Preference was again found for ages with end-digits 0 and 9, but also for end-digit 7 rather than 6. These refer to years of birth ending in digits 9, 0 and 2, respectively. These preferences were found in the 1978 Census of Kiribati and some of them have been found in earlier censuses of the Gilbert and Ellice Islands and elsewhere in the Pacific region. However, there is no real explanation for any of them in Tuvalu, although it is common to have births (or ages) referred to the nearest year ending in 0. No single year was especially singled out as the year of birth for an exceptional number of people. An error in age reporting found in previous GEIC censuses was the avoidance of ages or birth years consisting of two identical digits (e.g. age 22, 33 or year of birth 1922, 1933), but no such reporting errors were found in the 1979 Census.

Hence, the evidence indicates that only a small degree of preference (or avoidance) was shown for any unit digit of age in the 1979 Census. This degree of accuracy is, however, little better than that found in the 1968 Census, when birth cards were not employed. Since the accuracy of age reporting in the 1973 Census was greater, with virtually no digit preferences, and since birth cards were employed in that census, it is considered that these cards are of most value when supported by good field work and are not intrinsically valuable by themselves. It is anticipated that the birth cards retained by recipients will be used in future censuses.

The age distribution of the de facto* indigenous population by sex and single years of age is shown in a so-called age-sex pyramid in Figure 3.1. (The dots on the graph represent the graduated de jure* population figures - see below.)

Population by Five Year Age Group

Age distributions are mostly studied by conventional five year age groups. These have the advantage of both smoothing minor fluctuations by aggregation and also collating the data into a more easily interpreted and manageable format. (Their disadvantage is that the conventional age groups may not be the optimum groupings for the country concerned; they are not for Tuvalu where the age group 0-4 deviates negatively and the age group 5-9 positively from 50% - see Table 3.2.) The percentage age distributions by five year age groups for the indigenous de facto and de jure populations are shown in Table 3.3 and graphically in Figure 3.2.

The main features of the age-sex distribution of the population of Tuvalu are:

- a) the moderately large proportion of children (33% of the population - de facto and de jure - is aged under 15) which is typical of but lower than in many developing countries and is related to fertility levels (see Chapter 5). Associated with this is the low proportion of old people;
- b) an 'indentation' in the pyramid for children under 10 years due to a reduction in fertility, probably as a result of the family planning programme (see Chapter 5);

* The 'de facto' population is those people enumerated in Tuvalu and the 'de jure' population includes temporary absentees, such as mine-workers in Nauru and Banaba, seamen, students, etc.

Figure 3.1

The De Facto Indigenous Population of Tuvalu
by Sex and Single Years of Age
(dots represent graduated de jure population)

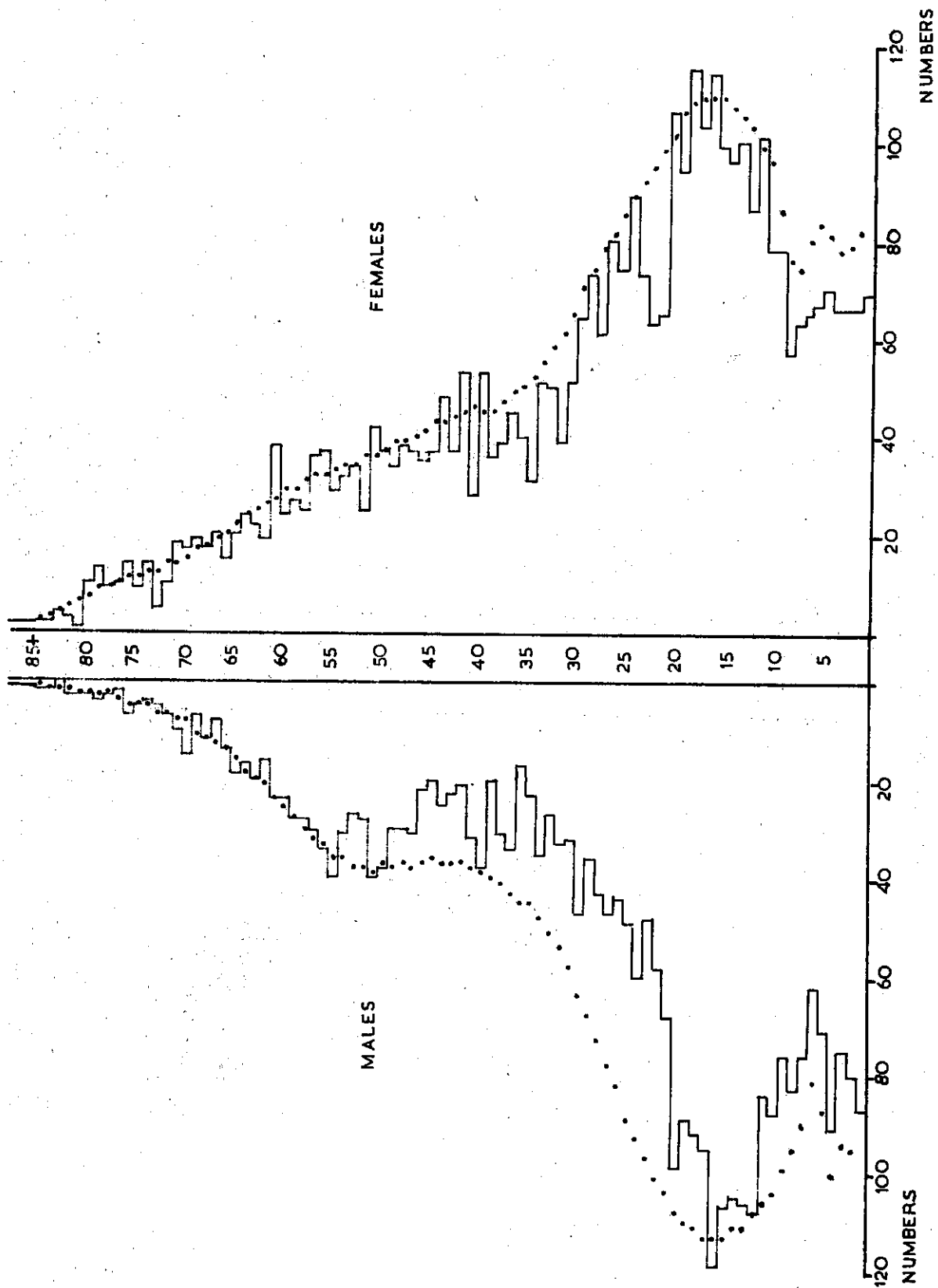


Figure 3.2
The De Facto and De Jure Indigenous
Population of Tuvalu by Sex and Five
Year Age Groups

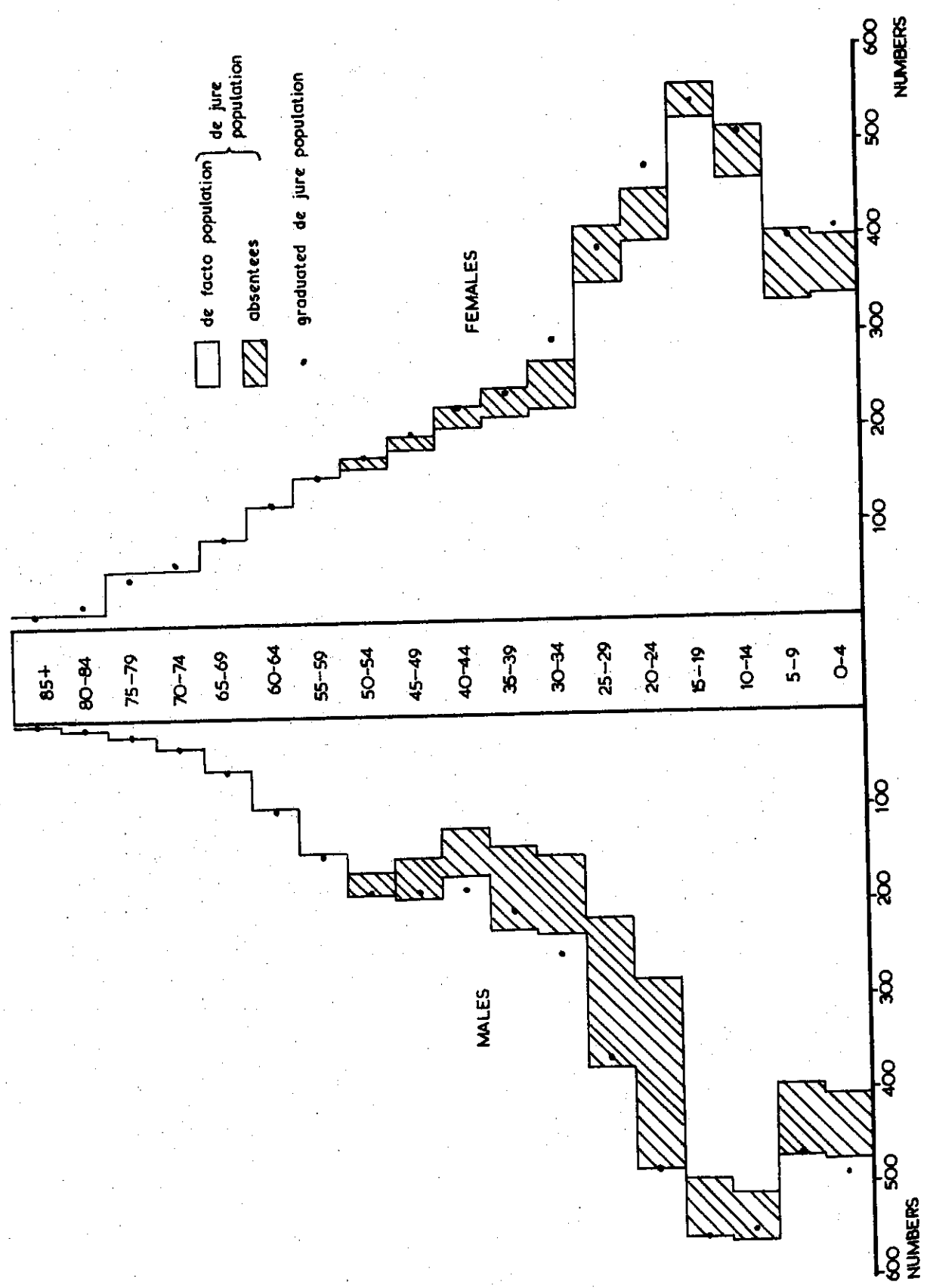
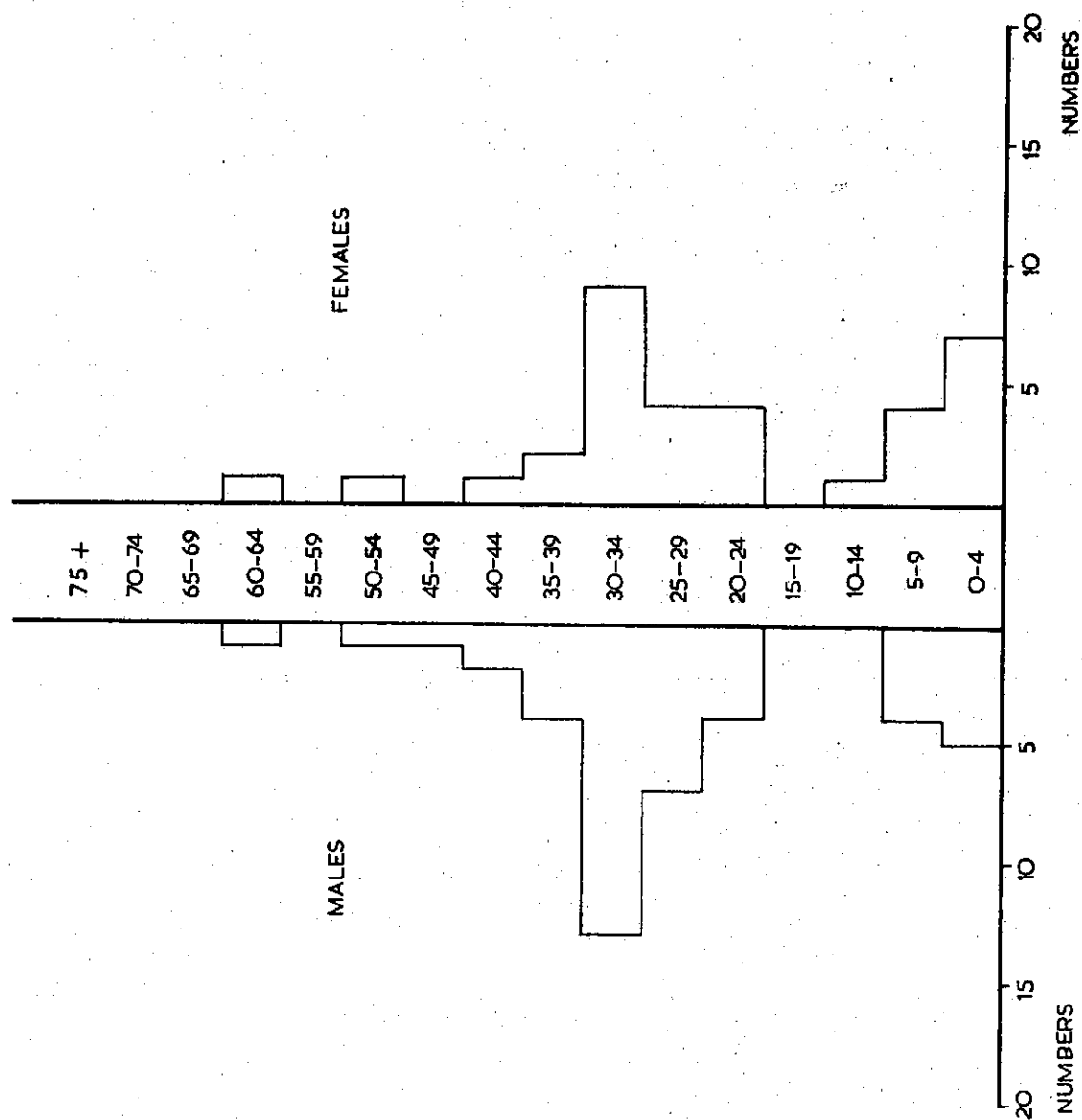


Figure 3.3 The Non-Indigenous Population of Tuvalu
by Sex and Five Year Age Groups



- c) a particularly large cohort aged 15-19 (especially for females) possibly because of a genuine high level of births or because of an upward transfer of some children really aged 10-14;
- d) an overall excess of females in the de facto population at all adult ages due mainly to the absenteeism of males, e.g. in Nauru and Banaba, since the sexes are more balanced in the de jure population;
- e) an indentation starting at ages 30-34, more accentuated than in the 1973 Census, which may just be the result of a drought or epidemic reducing the number of survivors, or may be the effect of the war reducing the number of potential fathers and hence the number of births (Census Report, 1947) - conversely, there may be a genuine increase in births from 1948-49;
- f) a small cohort of males aged 40-44 (this was also small in 1973 as the age group 35-39, and in 1968 as the age group 30-34). No satisfactory explanation for this could be found.

Table 3.3 Percentage Age Distributions in Five Year Age Groups of the De Facto and De Jure Indigenous Populations

Age Group	De Facto		De Jure	
	Males	Females	Males	Females
0- 4	11.9	8.7	11.0	9.2
5- 9	11.6	8.5	11.0	9.3
10-14	15.0	11.9	13.0	11.9
15-19	14.6	13.5	12.9	12.9
20-24	8.3	10.2	11.2	10.3
25-29	6.4	9.1	8.7	9.4
30-34	4.4	5.7	5.4	6.2
35-39	4.1	5.5	5.3	5.6
40-44	3.6	5.2	4.3	5.2
45-49	4.5	4.7	4.4	4.5
50-54	4.9	4.2	4.2	4.0
55-59	4.2	3.8	3.4	3.5
60-64	2.8	3.2	2.3	2.9
65-69	1.7	2.3	1.4	2.0
70-74	0.9	1.4	0.7	1.3
75+	1.1	2.1	0.8	1.8

Other minor irregularities in the age-sex pyramid are probably due to a combination of some age reporting errors and the small numbers involved.

The age-sex pyramid for the non-indigenous population (which forms only 1.1% of the total de facto population of Tuvalu), shown in Figure 3.3 demonstrates very clearly the socio-economic factors which govern the ages of this group in Tuvalu. This population is comprised mainly of Europeans who are in Tuvalu for a short period only. Several men come alone to work, hence the excess of males, and the women are mostly wives aged 20-35 who have young children with them, with any older children being away at school.

Graduation of the Age Distribution

In view of the defects, small though they are, in age reporting described above, it was decided to graduate the age-sex distribution. The technique used is described in Appendix B and the graduated de jure indigenous population by sex and single years of age shown in Table 3.4, and by the dots on Figure 3.1. The de jure population was selected for graduation as it is more 'balanced' and less affected by age-specific

migration than the de facto population, which can be derived from this by proportional adjustment if necessary. It should be noted that although the graduation of the age distribution provides a more plausible pattern of age structure, it may also have obscured some genuine irregularities in the data. Furthermore, the choice of the technique applied incurred subjective judgement; other techniques which might have given just as plausible but rather different results might have been adopted.

Table 3.4
Graduated De Jure Indigenous Population
by Sex and Single Years of Age

Age	Males	Females	Age	Males	Females	Age	Males	Females
0	114	91	35	45	50	70	8	14
1	95	82	36	43	49	71	7	14
2	94	79	37	41	47	72	7	12
3	100	78	38	40	45	73	5	12
4	87	81	39	39	45	74	5	11
0-4	490	411	35-39	208	236	70-74	32	63
5	81	83	40	38	46	75	5	11
6	90	80	41	37	45	76	4	10
7	95	74	42	37	44	77	3	9
8	99	75	43	37	43	78	3	9
9	104	86	44	36	43	79	3	7
5-9	469	399	40-44	185	221	75-79	18	46
10	106	96	45	37	41	80	3	6
11	108	99	46	38	40	81	2	5
12	111	103	47	37	39	82	2	4
13	111	105	48	38	39	83	2	3
14	113	107	49	37	37	84	1	2
10-14	549	510	45-49	187	196	80-84	10	20
15	113	109	50	39	36	85	1	2
16	113	109	51	38	36	86	1	1
17	111	109	52	38	34	87	1	1
18	110	108	53	36	34	88	1	1
19	108	106	54	36	33	89	-	-
15-19	555	541	50-54	187	173	85-89	4	5
20	104	101	55	33	32	90	1	1
21	101	98	56	32	32	91	-	1
22	97	95	57	30	31	92	-	1
23	93	92	58	28	29	93	-	1
24	89	89	59	26	29	94	-	-
20-24	484	475	55-59	149	153	90-94	1	4
25	82	85	60	24	27	95	-	1
26	78	81	61	21	26	96	-	-
27	73	78	62	20	25	97	-	-
28	68	74	63	19	24	98	-	-
29	64	70	64	16	22	99	-	-
25-29	365	388	60-64	100	124	95-99	-	1
30	58	65	65	14	20			
31	54	61	66	13	19			
32	51	58	67	12	17			
33	48	55	68	11	17			
34	45	52	69	8	15			
30-34	256	291	65-69	58	88			
						Total	4307	4345

Sex Ratios

As in the 1968 and 1973 Censuses of the Gilbert and Ellice Islands, the total de facto indigenous population enumerated in the 1979 Census of Tuvalu contained considerably fewer males than females; in fact there were only 87 males to every 100 females, or, in other words, 467 males per 1000 total population. If the absentee population is included, the balance is redressed with 99 males per 100 females (498 males per 1000 total population). For the extremely small non-indigenous population (78 persons), the overall sex ratio is 564 per 1000; this excess of males again reflecting the fact that it is primarily economic reasons that determine the sex composition of this community.

Sex Ratio at Birth

The world-wide sex ratio at birth is (with some exceptions in Africa) very close to 105 males per 100 females, i.e. 512 males per thousand total live births. An attempt was made to ascertain the sex ratio at birth from census data by asking each woman (Questions DD and FF) the date of birth and sex of her last-born child (whether or not it had survived). The numbers of children enumerated aged 0, 1, 2, 3 and 4 were also 'reverse-survived' (see Chapter 5) to obtain the number of births in each of the five years preceding the census (see Table 3.5)*. The sex ratios at birth are seen to be high and to fluctuate between both years and sources of data, although the values for the year preceding the Census compare well with each other. Many of these fluctuations are probably due to the small numbers involved. The registration data for the period 1898-1967 give an overall sex ratio at birth of 519 (as do the unpublished registration data for 1968-73). These figures are not significantly different** from the average value of 512 and certainly do not indicate a high sex ratio at birth as is found in parts of Melanesia and Polynesia. Since no firm conclusions can be drawn concerning the correct value for the sex ratio at birth in Tuvalu, in all calculations it was taken as 512 per 1000.

Sex Ratios by Five Year Age Groups

Table 3.6 gives the sex ratios (as males per 1000 population) for both the de facto and de jure indigenous population. The composition of a population is determined by the sex ratios at birth in successive cohorts and by sex-specific losses by death and losses or gains by migration. There is usually an excess of males in the youngest cohorts due to the greater number born. Over time this changes into an excess of females, which increases with age because more men than women die at each age. With some fluctuations, this pattern is seen to exist in both populations. For the age groups 15-54 the number of males per 1000 population in each five year age group is considerably higher in the de jure population, where the overall sex ratio for all ages is very close to half. These findings are to be expected since the absentees from the de facto population are mainly men.

Sex Ratios by Island

Sex ratios by broad age group by island are shown in Table 3.7 for the de facto indigenous population. Most islands in the Tuvalu group show an

* These sex ratios could not be compared with those derived from registration data as the latter were not available.

** At the 5% level of significance.

excess of females over all ages in the communities, although the very small numbers on some island increase the effect of chance factors. In addition, the normal excess of male over female births is reflected in the sex ratios of children aged 0-14 which show an excess of boys on most islands. In the age group 15-49, however, there is an excess of females on almost all islands, other than on those islands to which men (mostly) migrate for work (with the exception of Banaba, surprisingly). Most of these low sex ratios in this age group are therefore a result of the migration for work overseas by some of the men; the sex ratios of a de jure population would obviously be more balanced. These ratios should however be interpreted with caution because of the extremely small numbers involved (particularly on Nukulaelae, Niulakita and Banaba).

Table 3.5 Comparison of the Sex Ratios of the Number of 'Reverse-survived' Enumerated Children Aged 0-4, and of Births Reported as Last-born Children During the Five Years Preceding the Census

Number of Years Prior to Census	Reverse-survived Enumerated Children		Reported Births	
	M	F	M	F
0	90 *SR = 559	71	93 SR = 557	74
1	85 SR = 552	69	84 SR = 579	61
2	81 SR = 536	70	71 SR = 577	52
3	99 SR = 586	70	56 SR = 554	45
4	77 SR = 507	75	36 SR = 537	31
Total	432 SR = 549	355	340 SR = 564	263

* SR = sex ratio

Table 3.6 Number of Males per 1000 Population in Each Five Year Age Group for the De Facto and De Jure Indigenous Population

Age Group	De Facto	De Jure
0- 4	545	543
5- 9	545	539
10-14	525	522
15-19	485	497
20-24	417	518
25-29	381	477
30-34	403	462
35-39	397	488
40-44	373	430
45-49	455	500
50-54	506	522
55-59	491	492
60-64	438	442
65-69	389	395
70-74	356	356
75+	304	304
All Ages	467	498

Table 3.7

Sex Ratios (Males per 1000 Population) by
Broad Age Groups by Island for the
De Facto Indigenous Population

Island	Age Groups			All Ages
	0-14	15-49	50+	
Nanumea	576	371	435	453
Nanumaga	496	373	431	430
Niutao	541	347	404	426
Nui	580	415	439	474
Vaitupu	489	412	412	443
Nukufetau	512	344	445	419
Funafuti	552	511	521	524
Nukulaelae	611	389	406	461
Niulakita	607	625	400	600
Tuvalu	537	427	445	467
(Nauru	469	683	720	608)
(Banaba*	605	470	560	531)

* Ages as at December 12th, 1978.

Comments on Census Questions

As stated in the introduction, the determination of the sex of a respondent usually presents no difficulty to the enumerator, and in this census he selected an individual card accordingly. As regards the age of a respondent, 'date of birth' rather than 'present age' was asked, as recommended in the 1968 Census and as asked in the 1973 Census. As discussed above, the procedure used to determine date of birth as accurately as possible did result in little age misreporting. It is recommended that 'date of birth' continue to be used in future censuses, but account must be taken of the date of the census in translation of this into age.

CHAPTER 4

MARITAL STATUS

Sheila Macrae

Census Question

The enumerators were instructed to ask the respondents (Question 1) whether they had never been married or were currently married, widowed or divorced. Persons living together as man and wife were regarded as married, whether or not they had undergone any religious, civil or traditional ceremony; divorced people included those separated from their partners by informal agreement; widowhood covered all persons who had lost a partner through death of that partner and who had not remarried. Information on whether or not this was a respondent's first marriage was not obtained. For the purpose of this study, all persons under 15 years of age were regarded as never having been married, so the analyses in this chapter refer in all cases only to persons of this age and older.

Total Population

In the indigenous de facto population aged over 15 at the time of the census*, there were 960 single males and 1139 single females; 1100 married males and 1249 married females; and 80 males and 424 females whose last marriage had been terminated by death or separation. In a population where marriage is monogamous (as it is in Tuvalu) and where there is no migration, the number of married males should equal the number of married females. The fact that they do not is a reflection mainly of the nature of the migration out of Tuvalu for employment. If the people working in Nauru are included, the numbers of married males rises to 1297 and of married females to 1370 thus halving the discrepancy. (The marital status of Tuvaluans in Banaba, and of the absentee seamen and male trainees overseas is not known.)

Never Married Population

The proportions of the indigenous population who had never married by the time of the census can be seen in Table 4.1. As would be expected, the proportions never married are very high among young persons and decrease with increasing age. Only a very few persons are married in the age group 15-19.

Table 4.1 The Percentage of Never Married Males and Females of Each Age Group in the De Facto Indigenous Population

Age Group	Males	Females
15-19	99.8	96.8
20-24	85.5	66.6
25-29	50.5	39.6
30-34	30.1	22.0
35-39	15.7	19.8
40-44	6.9	16.4
45-59	1.9	11.9
60-74	2.1	8.5
75+	0	5.7
All Ages		
15+	44.9	40.5

* Strictly aged over 14 years and 5 months since the 'unadjusted' ages were used in this analysis. However, all persons aged 15 had never been married.

The proportion of males who have never married is higher than that of females at ages under 35 years; thereafter the pattern is reversed, but the very small numbers at these higher ages makes interpretation difficult. The percentages never married for all ages over 15 years (45% of males and 41% of females) are quite high and there is also, surprisingly, little difference between the sexes. They can also be compared with percentages found in the 1973 Census. Of the Polynesians aged over 15 years living in the Gilbert and Ellice Islands in 1973, 38% of males and 34% of females had never been married. (For Polynesians in only the Ellice Islands, these percentages were 35% and 34% respectively.) Although these results may indicate a real fall in the proportions married in the inter-censal period, they may also be due merely to non-comparability of the two populations or to different interpretations of the question at the two censuses; they should therefore be interpreted with caution particularly since they are based on very small numbers.

The age at first marriage was not asked in the census, but can be calculated indirectly (Hajnal, 1953) from proportions single in five year age groups to the end of the reproductive period. The age at first marriage, known as the 'singulate mean age at marriage' so calculated for the indigenous population of Tuvalu was 29.0 years for males and 24.5 years for females*. The value for females is only very slightly higher than that of 24.2 years found for Polynesians in GEIC in 1973 although the value for males is considerably higher (27.4 years in 1973). As with the proportions single, this may indicate a rise in the mean age at marriage in the inter-censal period (which, however small, would contribute to a lowering of the level of fertility) or may merely be due to differences in the populations under study; little should therefore be concluded from this comparison (although the mean age at marriage for Polynesian females has risen from 22.0 years in 1963 - Veltman, 1979). These values found in Tuvalu are of the order of those found elsewhere in the Pacific region (e.g. in Niue, Tonga, Fiji). An inter-island comparison of the singulate mean age at marriage was not made because of the extremely small numbers involved which meant that chance factors considerably reduced the value of any results.

Married Population

The proportion of single persons in each age group in the reproductive age range generally decreases with age, and the proportion of married persons consequently increases over the same age range. However, after that range the relative numbers of married people begins falling too, because death takes a higher toll and leaves more and more people without partners with increasing age. The age group at which an upward trend in proportions married changes into a downward trend varies between males and females. In Tuvalu the peak is found in age group 50-54 for males and less clearly for females in the age group 45-49 (ignoring fluctuations). The difference is mainly related to the custom of men marrying women younger than themselves. The proportions of currently married males and females in each five year age group (see Table 4.2) demonstrate the above patterns. (The proportions of persons ever-married are found from Table 4.1.) It can also be seen that for ages above 35 years, the proportions of males married are higher in each age group than the proportion of females married, which may reflect the fact that in Tuvalu it is easier for a man to remarry merely because there are more women than men in most of these age groups. Data on whether or not the current marriage was the respondent's first were not collected at this census.

* Using corrected ages and including Tuvaluans enumerated in Nauru.

Table 4.2

Percentage of Currently Married Males and Females
of Each Age Group in the Indigenous Population

Age Group	Males	Females
15-19	0.2	3.2
20-24	14.2	31.9
25-29	48.6	55.2
30-34	68.1	70.7
35-39	81.1	68.5
40-44	89.3	69.2
45-49	93.6	69.5
50-54	96.4	61.0
55-59	89.7	68.0
60-64	87.5	43.2
65-69	86.0	38.9
70-74	68.4	13.3
75+	62.5	20.7
All Ages		
15+	51.4	44.4

Widowed Population

Since mortality of males is higher than that of females at each age (see Chapter 6), the proportions of females widowed is likely to be higher at all ages than the proportion of males widowed. Remarriage may also have lowered these proportions for males. The proportions of ever-married persons now widowed calculated from Basic Table 8 indicated that this was true for Tuvalu but the very small numbers involved precluded the drawing of firm conclusions. However, at the time of the census, amongst all ages of the ever-married population (chosen to avoid the distorting effects of those people who had never lived with a partner and therefore could not be at risk of being widowed), 4.7% of males and 18.5% of females were widowed - i.e. almost four times as many females as males were widowed. These percentages are similar to those found for Polynesian males (4.5%) and females (19.6%) living in GEIC in 1973.

Divorced Population

The number of divorced persons in Tuvalu is even smaller than the number widowed. Over the whole age range, only about 2.1% of ever-married males and 6.8% of females were currently divorced at the time of the census. Because of the small numbers involved, no detailed study was made of the proportions of persons divorced by five year age group. However, it appeared that for most age groups the proportions of males divorced is lower than that of females. Divorce/separation can be arranged by mutual agreement and there is no social stigma attached to remarriage which may be easier for men than for women (see above). Hence, the percentage of divorcees in each age group of ever-married persons could be approximately constant for all age groups, although the percentage of persons who had ever been divorced would increase with each group. Remarriage would, however, become more difficult at older ages, especially as divorcees would meet 'competition' from widowed persons.

Conclusion

The main reason for enquiring into a respondent's marital status at a census is because marriage patterns are important determinants of fertility. The numbers of persons who marry, or who do not, the ages at which men and women first marry, and the frequency of both widowhood and divorce all have

an effect on the number of children born. The information derived supports that on fertility patterns discussed in Chapter 5 and gives an indication of the trends in marriage patterns, particularly in the mean age at marriage. However, although data were available, the tabulations required to study fertility by marital status could not be prepared in the time available. It is suggested that such tabulations are included in the processing of the data from the next census in Tuvalu. Data on rates of remarriage or of illegitimacy are probably better collected in separate surveys because of the sensitivity and complexity of the questions required, and because of the small numbers involved.

CHAPTER 5

FERTILITY

Sheila Macrae

Introduction

Information on the number of births in a year, the ages of the mothers and their total number of previous children is theoretically collected continuously in the vital registration system, which has been extant in Tuvalu for eighty years. However, because of the inadequacy of the registration data on births, they cannot be used to provide reliable statistics on current fertility rates. These are therefore required from the census data, since they are essential for population projections. The census provides three different sources of information on fertility in Tuvalu from questions asked to females only:

- a) the data on 'lifetime' fertility obtained from the questions on numbers of children born alive (Question AA), with additional data from the questions on the date of birth of the first-born child (Question CC) and the age of the mother at the birth of the first child (Question GG);
- b) the data on 'current' fertility obtained from the question on the date of the last live birth (Question DD);
- c) the data on the distribution of the female population by age (Question D). The enumerators were required to ask Questions AA - GG to all women, but only the responses from those aged 15 and over have been analysed, and these will be studied for the three sources separately.

Lifetime Fertility

Age of Mother at First Birth

Basic Table 12, derived from Questions D and GG, classifies women according to their present age (in five year age groups) and the age at which they bore their first child. The percentages of women in each age group who bore their first child before specified ages can be derived from these data and are shown in Table 5.1. It can be seen that almost one-third of all indigenous women attain motherhood before the age of 20, four-fifths by the age of 25 and 96% by the age of 30. These relative figures are similar to, though marginally higher than, those found for the Polynesians in both only the Ellice Islands and in the whole of GEIC in 1973. Of all women over the age of 15, 62% are mothers, and by the end of child-bearing, 93% of all women can expect to become mothers at current rates (calculated from proportions of women aged 45-49 who are mothers). It would be expected, if the pattern had remained constant over the years, for there to be no deviations of the proportions in each age group from the proportion of women of all ages who had had their first child before each specified age. However, the results are erratic and, although some of this variation may be genuine and reflect differential mortality or women or socio-economic conditions (e.g. the effects of the Second World War), it is probably mostly caused by memory errors, age mis-statements, the small numbers involved, and/or errors relating to the nature of the questions. Question GG was completed by the enumerator subtracting the date of birth of the woman (Question D) from the date of birth of the first child (Question CC). However, it is possible that, particularly for older women, the date of birth of the oldest living child may have been used to estimate the mother's age at first birth. This possibility is indicated by the

values of the mean age of mothers at the birth of their first child derived from the frequency distribution, although the error does not appear to be too great. While the mean age for all ages of women is 22.0 years, that for women aged 20-54 is 21.8 years and that for women aged over 55 is 22.7 years. This result may appear to be too low considering that the singulate mean age at marriage of women (see Chapter 4) was found to be 24.5 years. However, the indices are calculated differently and are not directly comparable, the mean age at first birth being the less reliable of the two; it should therefore be regarded with some scepticism.

Table 5.1 Percentages of Women in Each Age Group who had Borne Their First Child Before the Age Specified Indigenous Population

Age Group of Women	First Birth Before Age		
	20 %	25 %	30 %
20-24	44	-	-
25-29	28	88	-
30-34	30	85	97
35-39	34	81	94
40-44	30	79	92
45-49	30	78	94
50-59	22	69	92
60+	35	77	92
All Ages	32	82	96
Polynesians in GEIC 1973	29	79	95
Polynesians in Ellice Islands 1973	28	79	95

Percentages of Childless Women

Table 5.2 shows the percentages of all indigenous women over the age of 15 who had not given birth to a child before the date of the census. Studying the figures by age group, it can be seen that, as expected, the percentages are high for the young age groups and decrease through the reproductive age range and then rise slightly (and erratically) at higher ages. The higher proportions at older ages may be due to infertility, previously lower mortality for women who bore no children, or to memory errors. The small numbers involved precluded a comparison of the percentages of women childless in Funafuti with those childless in the outer islands. Had the tabulations been available to study the percentages childless by the education of the woman or her marital status, the conclusions would also have been limited by the small numbers involved.

Mean Number of Children Born per Woman

Table 5.3 gives the average number of children born alive (i.e. excluding stillbirths) to women in each five year age group. The values derived from the 1979 Census of Tuvalu are compared with those derived from 1973 Census data for Polynesians living in both the Ellice Islands only and also in the whole of GEIC in 1973 and 1968, and populations enumerated in recent censuses of Kiribati, Fiji and Niue. It should be noted that these averages refer to the number of women in each age group regardless of marital status. For ages 20 to 45, it can be seen that the mean number of children per woman is lower in Tuvalu in 1979 than in all other countries shown. It can also be seen that the mean parity of Polynesian women of

Table 5.2

Percentages of Women in Each Age Group who have
Borne No Children
Indigenous Population

Age Group	Percentage Childless %
15-19	96
20-24	64
25-29	32
30-34	19
35-39	15
40-44	8
45-49	7
50-54	9
55-59	12
60+	14
All Ages 15+	38

Table 5.3

Mean Number of Children Ever Born Alive Per Woman
by Age Group of Women
Tuvalu and Other Pacific Islands

Age Group of Women	Tuvalu ¹ 1979	Ellice Islands ² 1973	GEIC ² 1973	GEIC ² 1968	Kiribati ³ 1978	Fiji ⁴ 1976	Niue ⁵ 1976
15-19	0.05	0.04	0.04	0.06	0.14	0.09	0.18
20-24	0.48	0.70	0.67	0.80	1.03	0.86	1.35
25-29	1.44	1.77	1.88	2.41	2.30	2.11	3.26
30-34	2.50	2.79	3.02	3.77	3.58	3.35	3.96
35-39	3.52	4.15	4.28	5.32	4.99	4.41	5.91
40-44	4.53	5.49	5.61	5.66	5.58	5.11	6.01
45-49	5.61	6.09	5.89	5.72	6.25	5.63	6.96
50-54	5.78	5.67	5.59	5.09	6.11	5.53	7.56
55-59	5.40	5.11	5.18	5.16	5.78	5.55	5.73
60-64	5.06	4.90	4.88	4.99	5.30))
65-69	5.35	4.73	4.82	5.18	5.31))
70-74	5.46	5.85	5.73	5.32	4.65	5.56	4.57
75+	5.34	5.40	5.44	5.85	4.56))

1. Indigenous population - i.e. Polynesians with few Melanesians and Micronesians.
2. Polynesians only (GEIC Census report, 1973; GEIC Census report, 1968).
3. Indigenous population - i.e. Micronesians with few Polynesians (Kiribati Census report, 1978).
4. Fijians only - i.e. Melanesians (Fiji, Census office, 1977).
5. Indigenous only - i.e. Polynesians (Niue, Department of Justice, 1976).

reproductive age (i.e. 15-49) appears generally to have decreased in the Gilbert and Ellice Islands and in Tuvalu alone since 1968. These findings may be related to the efforts of the family planning programme (see below) but should be interpreted with caution both because the populations between 1968/73 and 1979 are not strictly comparable, and also because of the random fluctuations caused by the small numbers involved*. For the latter reason comparison of the mean parities of women in the 'urban' island of Funafuti with those of women on the other islands gave erratic results from which no definite conclusions could be drawn.

If the information on lifetime fertility had been fully and accurately reported, the mean number of children borne by women aged 50 and over could be taken as a close approximation of the total fertility rate. However, the mean number of children per woman (her 'average parity') rises with age to a maximum in the age group 45-49 (50-54 in Tuvalu and Niue) and decreases thereafter. This could be due to: the selective survival of women who had borne few children; a tendency on the part of the older women to omit some of their offspring when stating the numbers of children they had borne; or the general level of fertility having been lower when the women concerned were of reproductive age. Whatever the relative contribution of these three factors, it is clear that the reported completed family size of women aged 50 and over cannot be accepted as an index of the current level of fertility. In view of these considerations, estimates of the general level of fertility have therefore been based primarily on the mean number of births to women aged under 35 years. Since these women have not yet completed their child-bearing, an estimate of the total fertility rate must comprise an element representing the additional children still to be born. This element is calculated using the information on the shape of the age-specific fertility distribution obtained from the data on current fertility and described below.

Child/Woman Ratios

The child/woman ratio is calculated as the number of children of both sexes aged 0 to 4 years (i.e. under 5 years) divided by the number of women in the reproductive age range, usually taken for this purpose as 15-44 years. These are the women mainly responsible for the births of the children aged 0-4 and so the ratio can be used as an approximate index of the current level of fertility in a population. However, although the ratio is simple and is especially useful where the registration of births is inadequate, it suffers from the drawback that it is also affected by various factors. The most important of these is mortality, in that the children aged 0-4 at a census are the survivors of births in the last five years. The index is also affected by age mis-statements and by migration. It is therefore of use mainly as a comparative index rather than as an indicator of absolute levels of fertility. Within these limitations, the child/woman ratios for the indigenous women of the islands of Tuvalu in 1979 and for the Polynesian women of the Ellice Islands in 1973, 1968 and 1963 can be compared (see Table 5.4). Although these two groups are not strictly comparable, and although the figures fluctuate due to the very small numbers involved, it seems reasonable to deduce that there has generally been a fall in the ratio over the period studied, the greatest fall being in the 1968-73 inter-censal period. This probably indicates a fall in fertility (assuming no rise in mortality - see Chapter 6) over the same period (discussed below). Within the years, there is little inter-island variation in the child/woman ratios.

* In addition, the parities for 1979 may be slightly too low as a result of possible under-reporting of children ever born (see comments below and in Chapter 6).

Table 5.4 Number of Children Reported as Aged Less than 5 Years per 100 Women Aged 15-44 Years on Each Island

Island	Child/Woman Ratio			
	1979 ¹	1973 ²	1968 ²	1963 ²
Nanumea	42	39	79	87
Nanumaga	55	51	83	73
Niutao	43	52	77	86
Nui	41	61	77	91
Vaitupu	32*	42	64	83
Nukufetau	33	49	69	78
Funafuti	38	50	57	86**
Nukulaelae	26**	37**	79**	78**
Niulakita	***	***	***	***
Tuvalu	39	48	73	84

1. Indigenous population - i.e. Polynesians with few Melanesians.

2. Polynesians only.

* Students at the secondary school have inflated the number of women aged 15-44 used in this ratio.

** Based on fewer than 100 women aged 15-44.

*** Numbers involved are too small to permit calculation of ratios.

Age-Specific Fertility Rates and Total Fertility Rates

Current Fertility

(i) Reported

In the processing of the data on the most recent live birth (Question DD), the women who had borne their last child in the 12 months preceding the Census were tabulated by the age group of the mother. Table 5.5 shows the age-specific fertility rates so derived in comparison with those from the 1973 Census data for Polynesians living in the Ellice Islands only and in the whole of GEIC, and for the total indigenous population of GEIC, and from recent census data for the indigenous population of Kiribati. It can be seen that the mode of the reported fertility distribution of the women in Tuvalu in 1979 is in the 25-29 age group and the mean is 27.7 years. The total fertility rate obtained from five times the sum of these age-specific rates is 2.57 which is very low but similar to that reported for Polynesians in 1973. It is considerably lower than the total fertility rate for Kiribati and for GEIC in 1973 (the latter being predominantly of Micronesians). When these reported 'current' fertility rates were cumulated and compared with the corresponding values of average parity obtained from the data on 'lifetime' fertility, it seemed that the births occurring during the 12 months preceding the Census had been under-reported relative to the parity results by approximately 5%. (Reasons for this shortfall can be found in Appendix B.)

(ii) Adjusted

Details of the above methodology and of other techniques for the estimation of fertility which were applied to the Tuvalu data can be found in Appendix B. These techniques utilise different aspects of the data collected in the Census - either from direct questions or from information on the age distribution - to determine age-specific fertility rates and

total fertility rates. From these, and inevitably incurring an element of subjective judgement in the process, age-specific fertility rates which are thought most closely to represent the pattern and level of fertility in Tuvalu at the time of the census are selected. They are shown in Table 5.6. They give a total fertility rate of 2.8 births per woman which, assuming a sex ratio at birth of 105 males per 100 females, implies a gross reproduction rate of 1.37.

Table 5.5 Reported Age-Specific Fertility Rates:
Tuvalu and the Gilbert and Ellice Islands Colony

Age Group of Women	Tuvalu ¹ 1979	Ellice Islands ² 1973	GEIC ² 1973	GEIC ³ 1973	Kiribati ⁴ 1978
15-19	.0171	.0268	.0270	.0655	.0610
20-24	.1465	.1530	.1425	.2270	.2126
25-29	.1800	.1368	.1521	.2220	.2077
30-34	.1081	.0732	.0877	.1723	.1901
35-39	.0516	.0778	.0733	.1230	.1350
40-44	.0050	.0201	.0258	.0506	.0546
45-49	.0055	0	0	.0082	.0116
Total (x5)	2.5690	2.4385	2.5420	4.3430	4.3625
\bar{m}	27.66	27.85	28.13	28.91	28.93

1. Indigenous population - i.e. Polynesians with few Micronesians.
2. Polynesians only (GEIC Census report, 1973).
3. Indigenous population - i.e. Micronesians and Polynesians (GEIC Census report, 1973).
4. Indigenous population - i.e. Micronesians with few Polynesians (Kiribati Census report, 1978).

Table 5.6 Adjusted Age-Specific Fertility Rates

Age Group of Women	Age-Specific Fertility Rates
15-19	.0268
20-24	.1389
25-29	.1594
30-34	.1438
35-39	.0681
40-44	.0217
45-49	.0013
Total Fertility Rate	2.8

Analysis of the births occurring in the last 12 months by birth order can also provide information on the structure and pattern of fertility. However, this analysis was not possible for Tuvalu both because the requisite tabulation was not available and also because of the small numbers involved. Likewise, studies of reported age-specific fertility rates by differentials such as education and urban-rural areas or island groupings were not possible.

Changes in Fertility Over Time

(i) Census results

As well as deriving values of the current pattern and level of fertility, the technique known as the 'own-children' technique (Lee-Jay Cho, 1973) also derived age-specific fertility rates and total fertility rates for each of the single years and for the three five-year periods of the fifteen years preceding the census. The results for single years were discounted as they were based on such small numbers, but the total fertility rates for the three five-year periods preceding the census (approximately 1965-69, 1970-74 and 1975-79) were 5.0, 3.3 and 2.8 respectively. These figures match quite well those calculated by Veltman (1979) who found total fertility rates for the Polynesians in GEIC in the 1964-68 and 1969-73 inter-censal periods of 5.6 and 3.3 respectively, and a rate of 3.2 in 1973. The decline in the total fertility rate also confirms the general results found from the comparisons of average parity and child/woman ratios, and since it is based on data from only one census, it is not affected by problems of incomparability of two populations under study as are the other results.

(ii) Family planning programme

A small programme began in the Gilbert and Ellice Islands in 1965, but achieved little success. As a result of the so-called 'Mooring Report' (1968) of a socio-economic survey of the Gilbert and Ellice Islands in 1967, the Government, in its first Development Plan (1970) stated that 'the first priority in the first year of the Plan period (1970-72) is to devise and implement the first stage of a major programme for the control and reduction of the rate of population growth. Without this, any efforts to develop the territory will be doomed to failure'.

The family planning campaign had, in fact, begun in earnest in 1968 and by the beginning of the Plan period had achieved a considerable degree of success, which was maintained until 1973. In the period 1969-73, Sato (1974) estimated that 3000 births had been averted in GEIC. At that time, according to the annual medical records and reports (GEIC, 1974-76) between one-quarter and one-third of all women aged 15-49 were using some method of contraception, whereas in 1979, it appears that only one-fifth of the women of reproductive age in Tuvalu were doing so (Tuvalu, Ann. Med. Report, 1979). These figures are approximate, but perhaps give an indication that the initial impetus of the campaign has been lost, as anticipated by Cleland (1973).

It is clear from Table 5.5 that the total fertility rates of the Micronesians are much higher than those of the Polynesians in recent years and have dominated the combined rate for the Gilbert and Ellice Islands Colony as a whole, since the Micronesians constituted 82% of the indigenous population in 1973. It was on the basis of the total fertility rate for the whole of the Colony that the family planning campaign was initiated with such vigour. Although the total fertility rate in Tuvalu has reached a remarkably low level for a developing country and is in fact at little more than replacement level, there will continue to be increasing pressure on land resources even if the total fertility rate remains at its present level because of the increasing size of the reproductive cohort. Even a small growth rate increases population densities and hence reduces per capita land resources (Chambers, 1975).

In theory, a copy of each family planning client's record card has, since Separation, been sent to Funafuti for analysis. From a total of 316 record cards from all island clinics except Niulakita covering different time periods and with varying and unknown completeness of coverage a rough assessment of the ages of the women accepting contraception was made. It is important to know these ages since, if the young women are deferring or reducing the number of their births, there will be a greater effect on fertility than if it is merely the older women at the end of their child-bearing who are accepting contraception. For Tuvalu as a whole, two-thirds

of acceptors were aged under 30 years, though very few of these were aged under 20 years. The highest percentage of acceptors in any one age group was 30% in the 25-29 age group, and 22% of all women aged 20-24 and 27% of all women aged 30-34 had accepted family planning services (though were not necessarily still contracepting at the time of the census). Although the numbers are very small, they give an indication that, for all age groups of the reproductive period, the percentages of women accepting contraception are higher amongst women in Funafuti than on the other islands combined, with e.g. 45% of women aged 25-29 being acceptors in Funafuti and only 22% in the outer islands. This difference is not unexpected and is found in many other countries, and can usually be related to the effect of 'urbanisation'.

(iii) Vital registration of births

Indirect techniques, such as that described above for the estimation of fertility levels each year in a period of fifteen years prior to the census, would not be necessary if the system for the registration of births in Tuvalu was adequate. That it is not, despite having been in existence for eighty years, is a deficiency that could be easily remedied at the technical level. The registers and personnel already exist and little extra effort is required to ensure that the details of all births are fully registered. The details of the births registered since 1973 and whose record books are now in the archives were recorded by the census office staff. However, due to severe disruption to shipping schedules, misunderstandings etc., details of the births in the current registers (which go back varying lengths of time) were sent to Funafuti from only one of the islands. Hence, comparison of available vital registration data with census data* was not possible.

Crude Birth Rate

With an annual estimate of the total population obtained e.g. from census data, it should be possible to obtain a value of the crude birth rate from the annual number of births registered. However, with such incomplete vital registration data, this could not be done. Estimates of the crude birth rate could be made from the reverse-survived number of births and from the age-specific fertility rates derived from the inter-censal parity change. Using an average inter-censal population adjusted, as far as possible, for migration, the values were found to be 22.3 and 23.3 per 1000, respectively. These are average values for the inter-censal period and are vulnerable to the choice of inter-censal population used in the denominator; in the circumstances of Tuvalu, it is very difficult to determine this accurately. Because of this, and also because of problems inherent in the techniques used, these estimates of the crude birth rate derived for the inter-censal period are of limited value. The current crude birth rate is best obtained by applying the adjusted age-specific fertility rates (see above) to the numbers of women in the reproductive age groups in the graduated de jure age distribution; for both sexes combined a value of 23.7 per 1000 is obtained (24.4 per 1000 for males and 23.0 per 1000 for females), and this is the value used in the derivation of the natural rate of increase. This value is slightly higher than those calculated for the inter-censal period not only for the reasons of possible errors in the latter values described above, but also because (although total fertility rates have fallen) the actual number of annual births has increased due solely to the fact that the cohorts of women in the reproductive age range have increased in size.

* By the 'reverse-survival' technique, or by the Brass technique (1979) which allows for changing mortality.

Comment on Census Questions

Question GG (age of mother at birth of first child), whether asked of the women directly or derived from Question D (date of birth of mother) and Question CC (date of birth of first child), has limited value because of the problem of age-related memory errors. For this reason, tabulations on birth intervals were not even prepared, although their requirement had been assumed from their inclusion in the 1973 census tabulations. It is suggested that the value of these questions is considered closely before their inclusion in future censuses; the omission of Questions CC and GG would result in little loss and probably considerable gain from the reduction in the total number of fertility questions and hence, hopefully, a better response to each. The question on whether or not the mother is in the same household (Question G), though not directly a fertility question as such, is required for fertility analysis as long as the 'own-children' technique is utilised. In the tabulation for this technique, provision should be made for the numbers of dead mothers; this was overlooked in this census. The questions concerning the number of children ever born (Question AA), the number of these alive on census night (Question BB), and the date of the last live birth (Question DD) are essential for the analysis of fertility and should undoubtedly be retained in future census schedules.

Summary

A total fertility rate of 2.8, and a related crude birth rate of 23.7 per 1000, is very low for a developing country. As well as being to the benefit of the health of the mothers and the family in general, it is also to the advantage of Tuvalu for it to remain at this level, since land resources, welfare services, education and employment opportunities, etc., are all limited and could not sustain a rapidly growing population. Even if these fertility rates remain constant, the actual number of births in the immediate future will rise because of the increasing size of the reproductive cohort. The number of annual births, and hence the extent of the increased demand on relevant services, could be monitored closely if the vital registration system were improved.

CHAPTER 6

MORTALITY

Sheila Macrae

Introduction

In the more developed parts of the world, information on mortality is collected regularly through the vital registration system, through hospital records, etc., but in most countries in the developing world, these systems are still inadequate. Tuvalu is exceptional in that registration of deaths, as of births, has existed in the islands since the beginning of the century. However, both the coverage and the information collected are incomplete and the system therefore does not provide adequate statistics from which national death rates can be obtained. Likewise, although hospital records on mortality exist for recent years, they are incomplete and are also not representative of the whole population. Hence, it is necessary to include in a census, questions on mortality from which information on mortality rates may be obtained indirectly. Such information is of considerable importance since it forms the basis of all population projections and estimates until the next census. In this chapter, the standard indices of mortality are estimated for the indigenous population of Tuvalu. (The mortality of the very small non-indigenous population (78 persons) is of little consequence in the pattern of overall growth in Tuvalu, and so will be excluded from these studies.)

Indices relating to infant and child mortality are derived separately from those relating to adult mortality, as they are obtained from different census questions and by techniques of varying degrees of reliability and robustness. It is also important for planning purposes, especially for the planning of health care services, to have information on the levels of infant and child mortality. The two sets of information are finally combined to give an overall picture of mortality in Tuvalu in the form of model life tables for the whole population.

Infant and Child Mortality

Two sources of information are of use for estimates of infant and child mortality:

- a) The data obtained in Questions AA and BB wherein each woman was required to state the total number of children she had borne during her lifetime and the number of these still alive at census night;
- b) The data obtained in Questions DD, EE and FF in which each woman was asked to report on the date of birth, survival and sex of her most recent child.

Only the first data source will be studied in detail.

Table 6.1 shows for women in each five year age group the proportion of the children born to them who had died by the time of the census. These proportions are compared with those derived from 1973 Census data for Polynesians living in both the Ellice Islands only and in the whole of GEIC, the total GEIC population enumerated in 1973 and populations enumerated in recent censuses of Kiribati and Fiji. Although these proportions can be used for rough comparative purposes as they give an indication of the relative levels of mortality, they are influenced by several factors, e.g. fertility, and subject to various biases, e.g. memory errors. Analytical techniques have been devised to take account of these and to convert the probabilities of children dying by age group of mother into life table

probabilities of dying by age x. These techniques (described in Appendix B) are used mainly to obtain the best estimate of the probability of dying in the first two years of life.

Table 6.1 Proportions of All Children Born who have Died, by Age Group of Women
Tuvalu and Other Pacific Islands

Age Group of Women	Tuvalu ¹ 1979	Ellice Islands ² 1973	GEIC ² 1973	GEIC ³ 1973	Kiribati ⁴ 1978	Fiji ⁵ 1976	Niue ⁶ 1976
15-19	.042	.154	.105	.114	.102	.051	.105
20-24	.053	.101	.098	.108	.110	.046	.048
25-29	.063	.095	.101	.123	.135	.046	.044
30-34	.078	.127	.136	.156	.142	.053	.046
35-39	.104	.163	.159	.191	.170	.063	.085
40-44	.122	.220	.206	.227	.194	.080	.074
45-49	.165	.222	.214	.253	.233	.104	.138
50-54	.196	.295	.294	.326	.263	.125	.151
55-59	.299	.333	.318	.357	.312	.153	.253
60+	.322	.361	.360	.400	.360	.212	-

1. Indigenous population - i.e. Polynesians with few Micronesians.
2. Polynesians only (GEIC Census report, 1973).
3. Indigenous population - i.e. Polynesians and Micronesians (GEIC Census report, 1973).
4. Indigenous population - i.e. Micronesians with few Polynesians (Kiribati Census report, 1978).
5. Fijians only - i.e. Melanesians (Fiji, Census office, 1977).
6. Indigenous only - i.e. Polynesians (Niue, Department of Justice, 1976).

The figure finally derived for this value was 60 - i.e. out of 1000 children born alive in Tuvalu, 60 die in the first two years of life, leaving 940 to survive to their second birthday (l_2 in life table notation). This figure represents the survivorship of both sexes together, and can be separated into l_2 values of 934 for males and 947 for females. These values are of the order of those found in several other Pacific Islands, e.g. Niue (1976): l_2 males = 953, l_2 females = 961; Fiji (1976): l_2 males = 948; l_2 females = 960. However, they are considerably higher than the values of l_2 found for Polynesians in the Ellice Islands alone and in the whole of GEIC in 1973 (892 and 887 for both sexes combined, respectively). Childhood mortality of Polynesians in GEIC did not change between the censuses of 1963 and 1968, with the number of children surviving to their second birthday being only 844 per 1000 live births. The reduction in the level of mortality began in the 1968-73 inter-censal period for both the Polynesians and Micronesians of GEIC and has continued for the Polynesians but not for the Micronesians in the 1973-79 inter-censal period.

The medical personnel consider that the fall in childhood mortality in Tuvalu since 1973 is the result of several factors:

the transfer, on Separation, of the administrative centre from Tarawa in the Gilbert Islands to Funafuti, enabling closer contact with, and improved services to, the outer islands of Tuvalu;

improved health services and health education programmes as a result of higher calibre nurses being stationed on the outer islands;

improved maternal and child health services (especially regarding vaccination and the BCG programme);

a successful campaign against filariasis; and

improved water supplies and sanitation (though these are to be improved further according to the Second Development Plan - in press).

In addition, standards of nutrition are generally adequate, though probably lower on the 'urbanised' island of Funafuti than on the outer islands of Tuvalu.

It is unfortunate that both the vital registration system and the hospital statistics are inadequate to monitor the annual fall in childhood mortality levels (and no detailed statistics are available on causes of death), since it is thought that, despite the improvements listed above, the fall in childhood mortality has probably not been as extensive in the last inter-censal period as the figures indicate. Reasons for regarding the level determined from the 1979 census data as a minimum value are discussed in Appendix B.

The values of l_2 derived for each sex separately from the 1979 data are subsequently used as the basis for the selection of the model life tables for Tuvalu (see below), from which are derived infant mortality rates of 47 deaths in the first year of life per 1000 live births for males, 37 for females, and 42 for both sexes combined. These, of course, reflect the level of childhood mortality discussed above, and should also be regarded as minimum values.

An attempt was made to study childhood mortality by rural-urban differentials. Funafuti, though in itself hardly 'urbanised', is the capital island of Tuvalu and as such is the island to which people migrate to work (see Chapters 7 and 9). It is the most densely populated of all the islands (with consequently greater demands on water supplies, sanitation facilities, and other services) and there is greater dependence on imported foods and a cash economy than on the other outer islands. These factors have been shown elsewhere in the developing world to contribute to a higher level of childhood mortality in such 'urban' areas than in the rural areas. The levels of childhood mortality in Funafuti were derived and compared with those for all the outer islands combined. The results gave an indication that there may indeed be higher childhood mortality in Funafuti. However, the small numbers involved meant that the results had to be treated with caution and no definitive conclusions drawn.

Further inter-island comparisons of levels of childhood mortality and studies of sex-specific mortality of last-born children could not be carried out because of the large random variations caused by the extremely small numbers involved.

Adult Mortality

The principal sources of information on adult mortality are the data obtained in Questions E and H wherein all persons were required to state whether or not their mothers and fathers were still alive. Table 6.2 shows the percentage of persons in each age group (including those enumerated on Nauru) with fathers alive and with mothers alive, by the sex of the respondent. With only one or two exceptions, particularly in the highest age groups, the sequences of percentages are gratifyingly smooth considering the small numbers involved, and it can be seen that the percentages of persons with surviving parents fall rapidly with increasing age, as is to be expected. The percentages of adult males with father/mother alive are

generally higher than the corresponding percentages of females (as has been found in some other census data), and this is probably because adult males tend to exaggerate their own ages. The data from females respondents is therefore usually regarded as more reliable. The system of adoption and fostering in Tuvalu may also have caused some persons difficulty in identifying their true parents and they may have instead reported on the survival of foster parents. Such a tendency would not necessarily bias the results except in those instances where the process of adoption had taken place only because of the death of the true parent or where the adopted child did not know his true parent(s) had died. However, these instances are regarded as of negligible consequence in Tuvalu, and they affect mainly the two youngest groups of respondents of which the age group 0-4 is anyway excluded from the calculation.

Table 6.2 Percentage of Persons* in Each Age Group With Father Alive and Mother Alive by Sex of Respondent

Age Group of Respondent	Father Alive		Mother Alive	
	Males	Females	Males	Females
0- 4	98.7	97.9	99.6	99.7
5- 9	96.4	97.7	98.0	98.4
10-14	92.9	93.4	95.3	96.4
15-19	85.7	85.0	94.2	92.9
20-24	79.1	79.7	90.8	87.8
25-29	71.3	72.3	82.6	82.4
30-34	68.1	57.2	73.5	71.2
35-39	46.5	44.9	64.9	62.6
40-44	34.2	31.4	50.6	55.5
45-49	20.1	16.1	38.0	41.4
50-54	5.0	6.0	31.7	24.7
55-59	6.9	2.7	15.9	16.7
60-64	2.1	2.4	5.2	6.4
65-69	0	1.0	3.5	0
70-74	0	0	0	0
75+	0	0	0	0

* Including Tuvaluans enumerated on Nauru.

Using techniques described in Appendix B, these proportions of persons with surviving parents may be converted into life table survivorship probabilities - i.e. probabilities of surviving from a base age B (rather than from birth) to various older ages. These probabilities thus provide the basis for the construction of a life table for the population over the age of B. In the present instance, B was taken as 32.5 years for males and 25 years for females. The results for males, based on the survival of fathers and those for females, based on the survival of mothers, are shown in Table 6.3. In each case the estimates derived from the data from male and female respondents have been shown separately; the probabilities of survival based on the data from male respondents tend to be slightly higher than corresponding values based on female respondents. These discrepancies, together with other less obvious distortions in the data, necessitate the graduation of the results before final figures can be accepted. Even then, the results are difficult to interpret meaningfully and can be regarded mainly as prerequisites for the determination of the more conventional life tables for the whole population (see below). They cannot be compared with the 1973 Census, since questions for the derivation of adult mortality levels were not included in the 1973 Census schedule. It was also not feasible to study adult mortality by 'rural-urban' differentials because of the small numbers involved, and also because inter-island migration would bias the results (since parents of respondents are not necessarily resident in the same area as the respondents themselves).

Table 6.3 Probabilities of Survival of Males and Females from Orphanhood of Respondents, by Sex

Age x	MALES		FEMALES	
	Probability of surviving from age 32.5 to age x		Probability of surviving from age 25 to age x	
	Male Respondents	Female Respondents	Male Respondents	Female Respondents
25	-	-	1.000	1.000
30	-	-	-	-
32.5	1.000	1.000	-	-
35	-	-	.969	.976
40	-	-	.950	.953
45	.942	.950	.935	.918
50	.886	.884	.895	.869
55	.816	.817	.814	.809
60	.736	.745	.726	.702
65	.685	.590	.626	.614
70	.445	.438	.476	.521
75	.290	.256	.353	.342
80	.104	.056	.211	.193

Comment on Census Questions

Infant and Child Mortality

(i) Question AA merely asked all women to report the number of children ever born alive and Question BB, the number of those alive on census night. However, there is an indication from the results on childhood mortality that the numbers of children ever born were under-reported in this census. It is thought that some children (presumably those live-born and now dead) were forgotten by the women who, in the main, reported only on their surviving children. The enumerators perhaps had had inadequate training on this point and so did not fully check the respondents' answers. To minimise the effect of such memory errors, it had long been recommended (and widely practised elsewhere) that these two questions instead be asked as the following three:

- a) How many children has this woman borne who are now living with her?
- b) How many children has she borne who are now living elsewhere?
- c) How many children has she borne who have died?

However, inexplicably, this format of questions seems to have produced poorer results in a few Pacific censuses and it is therefore suggested that preparations for the next census start in enough time to allow the pre-testing of both formats, so that the one which produces the better results can be used in the census proper.

(ii) Sex-specific mortality rates could not be derived from the data collected in Questions DD, EE and FF because of the random variations in the very small numbers involved. This problem will always be present in a population the size of that of Tuvalu. Question DD is, however, required for the analysis of fertility and should therefore be retained. Question FF provides additional information on the sex of children born and is also useful, as is Question EE, as an 'aide memoire' to enumerators and

respondents for information on the last-born child. Nevertheless, the benefits gained from these last two questions should be carefully weighed against the disadvantages of two extra questions when preparing the next census schedule for Tuvalu.

Adult Mortality

The main disadvantage of asking all respondents about the survivorship of their parents is that a woman who has, say, five surviving children, will be represented five times whereas a childless woman will not be represented at all. In an effort to overcome part of this bias, a technique has been developed which relies on the responses from eldest surviving children only. It was with this in mind that Question F was included in the census schedule, but the technique has not yet been adequately proven elsewhere to warrant its application to the Tuvalu data. However, the data are tabulated for future use. It is recommended for the next census that, if this technique has by then been proven viable, Question F be retained. An additional question as to whether or not the respondent is his father's eldest surviving child is then required.

Model Life Tables

A model life table is synthesised from cross-sectional data collected at one point in time (i.e. at the census), and then the mortality rates are treated as if they were the successive proportions dying in the hypothetical group, or cohort, of males (or females). Before the advent of techniques for the estimation of adult mortality, model life tables were constructed on the basis of information on the value of l_2 alone. Now they can be constructed using the information on both childhood and adult mortality derived in the preceding sections (and employing the methodology described in Appendix B). Such model life tables therefore both link these estimates and also graduate the irregularities in the adult mortality figures. They are shown in reduced form in Tables 6.4a and 6.4b and may be regarded as the best estimates available of the general level of mortality in Tuvalu in the few years preceding the 1979 Census. It can be seen that expectation of life is higher at all ages for females than for males, as is generally found. Likewise, the expectation of life at age 1 is higher than at birth, since the risks of dying are highest in the first year of life and once a child has managed to survive that year its prospects improve as the risks decrease. The values for the expectation of life at birth (57 years for males and 60 years for females) are higher than that of 54 years for both sexes combined of the Polynesians enumerated in GEIC in 1973 (Veltman, 1979), as would be expected from the inter-censal decrease in the level of childhood mortality*. The parameters of the life tables (see Appendix B) indicate that adult mortality has fallen less rapidly than has childhood mortality (the latter being a minimum value - see above). Tuvaluans currently enjoy a higher expectation of life at birth than do their ex-compatriots of the former GEIC who are now in Kiribati (e_0 = 50 years for males, 54 years for females). These levels of expectation of life at birth are close to but lower than those for several other Pacific Islanders (e.g. Fijians (1976): e_0 = 61 years for males, 64 years for females; Niue Islanders (1976): e_0 = 64 years for each sex).

* It was not possible to verify the above findings on mortality using data on the age distributions in the two censuses 1973 and 1979 and applying a technique known as the 'inter-censal survival technique' (Brass, 1976) due to various factors: possible under-enumeration in 1973; extensive in-migration of Polynesians in the inter-censal period; re-classification of professed ethnicity between censuses; age mis-reporting; and the fact that the inter-censal period was approximately five and a half years.

Table 6.4

Abridged Model Life Tables
for the Indigenous Population

Age x	Life Table Survivors l_x	Life Table Population L_x	Probability of Dying q_x	Age-specific Mortality Rate m_x	Expectation of Life e_x
a) MALES					
0	1000	969	.047	.048	56.9
1	953	3736	.041	.010	58.7
5	915	4546	.011	.002	57.1
10	904	4500	.009	.002	52.7
15	896	4445	.016	.003	48.2
20	882	4361	.022	.005	43.9
25	863	4260	.024	.005	39.9
30	842	4152	.027	.005	35.8
35	819	4031	.032	.006	31.7
40	793	3888	.040	.008	27.6
45	762	3709	.053	.011	23.7
50	722	3474	.075	.016	19.9
55	668	3160	.108	.023	16.3
60	596	2733	.166	.036	12.9
65	497	2176	.249	.057	10.0
70	373	1506	.387	.096	7.5
75	229	834	.543	.149	5.6
80	105	344	.686	.209	4.3
85	33	97	.824	.280	3.3
90	6	12	1.000	.500	2.0
b) FEMALES					
0	1000	975	.037	.038	60.1
1	963	3788	.033	.008	61.4
5	931	4636	.009	.002	59.4
10	923	4598	.007	.001	54.9
15	916	4553	.012	.003	50.3
20	905	4485	.018	.004	45.9
25	889	4401	.020	.004	41.7
30	872	4311	.022	.004	37.5
35	853	4209	.026	.005	33.2
40	831	4087	.032	.007	29.0
45	804	3933	.043	.009	24.9
50	769	3726	.062	.013	20.9
55	721	3442	.091	.019	17.2
60	656	3042	.144	.031	13.6
65	561	2494	.222	.050	10.5
70	436	1790	.359	.088	7.8
75	280	1033	.523	.142	5.8
80	134	442	.676	.204	4.4
85	43	128	.820	.278	3.3
90	8	16	1.000	.500	2.0

Crude Death Rate

It was hoped to combine data from the census with those from the vital registration of deaths (even though the latter has an unknown completeness of coverage) to assess average inter-censal levels of mortality by the 'death distribution technique' (Brass, 1976). However, the unavailability in Funafuti of much of the recent vital registration data from the outer islands and the extensive in-migration of Polynesians in the inter-censal period precluded this approach. The current crude death rate was therefore obtained by applying the age-specific mortality rates derived from the Tuvalu model life tables described above to the graduated de jure population; the crude death rate so calculated is 15.0 deaths per 1000 total population per annum (13.8 per 1000 for males and 16.2 per 1000 for females).

Summary

The fall in childhood mortality in the last inter-censal period is encouraging and is considerable, but there is an element of doubt as to whether it has been quite as extensive as the figures indicate. It is possible that some data errors have caused the mortality to be slightly lower than in reality, so that the current level of childhood mortality should be regarded as a minimum value. Combination of this with the values of adult mortality therefore gives the most favourable model life tables for Tuvaluans but which can nevertheless be considered to be the most representative of the mortality currently prevailing in Tuvalu. Changes in mortality levels can be easily and inexpensively monitored by an adequate system for the registration of deaths. The infrastructure already exists on each island and it is suggested that efforts be made to re-establish a system which has complete coverage and which then is a valuable source of information on mortality in Tuvalu.

CHAPTER 7

MIGRATION

Nico Wit

Introduction

The geographical or spatial mobility of a population is of direct interest because of its effects upon the distribution of the population and because of its interaction with demographic, social and economic factors. This study of migration takes place against the background of large and unprecedented population movements caused by three major events: the Separation of the Ellice Islands from the Gilbert and Ellice Islands Colony; the change of the Ellice Islands into the independent country of Tuvalu (and the development of its capital Funafuti) and finally the termination of the mining activities in Banaba (which was at an advanced stage when the census of Tuvalu took place). In order to evaluate these and other movements a number of questions were included in the census questionnaire. The enumerators were instructed to record for each person his or her home island or country (Question N). With the data obtained, it was possible to define the areas of origin of the immigrant population and to describe the lifetime migration*. For the persons of 15 years and over the island of residence and the duration of this residence were recorded as well. Moreover this part of the population was asked to mention any other place where they had lived for longer than 12 months (Questions Q and R). Tuvaluans enumerated in Nauru were asked the same questions and the data are appended to the relevant Basic Tables.

Country of Origin

About 97% of the enumerated population mentioned one of the islands of Tuvalu as their home island. For people who did not belong to Tuvalu by birth**, the enumerators had to record the home country instead of home island. The results of this question are shown in Basic Table 5 where the population is classified by country of origin by five year age groups and sex. In the total population there were 97 males and 133 females who had their origin outside Tuvalu, while the figures for the Pacific countries only are 53 and 99. The low ratio of males to females is mostly caused by the unbalanced sex composition of the immigrants from Kiribati, since a number of Tuvaluan men brought their Gilbertese wives with them when they returned to Tuvalu. The developments set in motion after Separation and Independence brought with them a sharp increase in the number of non-indigenous persons (mostly Europeans). There were 20 non-indigenous persons enumerated in the Ellice Islands in 1973, compared with a total of 78 in Tuvalu in 1979. The non-availability of the original 1973 census data for the Ellice Islands separately concerning country of origin precluded further comparisons, except for the people with home island in Kiribati (see paragraph 'External Migration').

* Lifetime migration in fact only applies to data based on place of birth questions. However, in this chapter the term refers to information derived from the question on home island.

** There are indications that this criterion of birth has not always been followed. For some Tuvaluans who were born overseas a home island instead of home country was recorded.

Home Island

In this census the home island was taken as an indication of an individual's geographical origin. The 1968 Census defined the concept of home island as 'The island which each person regards as his true home, even if it is different from the island where he was born.'. This description needs a few comments. For the majority of the persons enumerated, the home island is the island where they have been born and which they regard as their real home. However for a growing number of Tuvaluans the island which they mentioned to the enumerators as their home island had lost much of its importance, illustrated by the fact that some of them had never even lived there. As a consequence, the value of the home island as a point of origin for migration has diminished. A number of movements between home island and island of enumeration shown in Table 7.1 below actually never took place. Since this number is still small it can be ignored, but in fact the figures for in- and out-migration should be corrected downwards. A possible alternative would have been the use of the island of birth, although this concept has some disadvantages as well. Sometimes mothers return to their parental home or travel to a distant hospital for childbirth, or children have been born in, for example, Banaba because the father worked there on a short contract at the time of birth. In both cases the island of birth tells little about the person's own movements (see 'Comments on Census Questions').

Lifetime Migration

In Basic Table 17 the home islands of the indigenous population are classified by five year age groups and sex for the whole of Tuvalu and for Funafuti and the combined other islands separately. The Tuvaluans in Nauru are also tabulated. Tables 7.1 and 7.2 were partly derived from unpublished tabulations. In Table 7.1 the inward and outward movements and the balance between the two are shown for every island. A brief explanation of Table 7.1a and b is required:

Table 7.1a:

- | | |
|-----------|---|
| Column 1: | Out-migration. Persons who have the island in the corresponding row as home island, but who are enumerated on another island of Tuvalu. |
| Column 2: | In-migration. Persons who are enumerated on that island, but who have a different island of Tuvalu as home island. |
| Column 3: | Net migration. Column (2) minus Column (1). A negative sign means that the island lost more people than it gained by migration. |

Table 7.1b:

- | | |
|------------------|--|
| Columns 1, 2, 3: | The in-, and out- net migration figures are shown as a percentage of the population enumerated in the census on the island (considering again only people with a home island in Tuvalu). |
|------------------|--|

However it should be kept in mind that the figures do not indicate the total volume of population movements between the island; they measure only the net effect of migration which has taken place during the lifetime of the surviving population. All the islands except Funafuti show considerable numbers of out-migrants, but the differences between these islands are remarkable, even when account is taken of the varying size of the populations on the islands by working with the relative figures of Table 7.lb. Measured in both ways, Nanumea has lost most people, followed by Niutao, Nukufetau, Nanumaga and Vaitupu, while Nukulaelae and Nui show a much lower out-migration. Only Vaitupa counted a surplus of in-migrants over out-migrants. This can probably be explained by the presence of the Secondary School and a greater number of occupation opportunities than in the other so called 'outer islands' (see Chapters 8 and 9). The net migration figures show a large gain for Funafuti. The island experienced a net inflow of people about equal in number to the whole population of Vaitupu. The in-migrants form 67% of the total (Tuvaluan) population in Funafuti. With this percentage the position of Funafuti is comparable with that of Tarawa in 1973, where 72% of the resident population of 15 years and over had a home island different from Tarawa (Veltman, 1979). The patterns of net migration figures for the other islands are largely determined by the respective size of their out-migration.

Table 7.1a: The Lifetime Migration of the Tuvaluans; Absolute Numbers¹

Island of Origin	M	(1) F	T	M	(2) F	T	M	(3) F	T
Nanumea	275	271	546	27	39	66	-248	-232	- 480
Nanumaga	150	156	306	24	28	52	-126	-128	- 254
Niutao	245	191	436	21	40	61	-224	-151	- 375
Nui	77	72	149	34	28	62	- 43	- 44	- 87
Vaitupu	109	127	236	206	268	474	+ 97	+141	+ 238
Nukufetau	191	177	368	22	31	53	-169	-146	- 315
Funafuti	25	32	57	723	592	1315	+698	+560	+1258
Nukulaelae	47	49	96	23	24	47	- 24	- 25	- 49
Niulakita	-	-	-	39	25	64	+ 39	+ 25	+ 64
TOTAL	1119	1075	2194	1119	1075	2194	0	0	0

Table 7.1b: The Lifetime Migration of the Tuvaluans; Relative Numbers¹

Island of Origin	M	(1) F	T	M	(2) F	T	M	(3) F	T
Nanumea	72%	59%	65%	7%	9%	8%	- 65%	- 50%	- 57%
Nanumaga	58	46	51	9	8	9	- 49	- 38	- 42
Niutao	67	39	51	6	8	7	- 61	- 31	- 44
Nui	28	24	26	12	9	11	- 16	- 15	- 15
Vaitupu	20	20	20	37	39	38	+ 17	+ 19	+ 18
Nukufetau	72	50	60	8	9	9	- 64	- 41	- 51
Funafuti	2	3	3	70	63	67	+ 68	+ 60	+ 64
Nukulaelae	29	27	28	14	13	14	- 15	- 14	- 14
Niulakita	-	-	-	100	100	100	+100	+100	+100
TOTAL	50	40	45	50	40	45	0	0	0

1. See explanation in the text.

Sex and Age Selectivity

Although the total numbers of male and female migrants are almost the same (respectively 1119 and 1075), the sex ratios for the migrant and non-migrant population components differ considerably (see Table 7.2). The higher value for the migrants, 104 against 82, implies that males have been more involved in migration than females. The out-migration considered separately shows that males outnumber females only in the out-migrant population from Niutao (245 against 191, see Table 7.1). A closer examination of the main directions of the out-migrants shows that the sex ratio for the migrants is only an average. The value for the migrant population in Funafuti is 122, while the sex ratio for the migrants enumerated in the other islands of Tuvalu is only 82. The even more pronounced difference between the figures for the age group of 15 years and over in the two migrant populations is an indication that the concentration of employment opportunities in Funafuti is one of the main reasons behind this inequality. The very high sex ratio of the migrant population aged 0 to 14 years of age in Funafuti is less exceptional if compared with the value for this age group in the whole country. The migration directed to the other islands of Tuvalu seems not to be sex selective as the male - female ratios for the migrants and the non-migrants are almost the same. However this similarity is not duplicated in each of the age components separately. The diverging sex ratio for the youngest migrants in the other islands is probably due to the surprisingly low sex ratio of students at the Secondary School in Vaitupu (see Chapter 8). A comparison of the sex ratios of Table 7.2 with those of the immigrant Tuvaluans in Nauru makes it clear that the sex and age selectivity of the 'work migration' towards Nauru is of quite a different order of magnitude. The sex ratios of the total population and the population of 15 years and over are respectively 159 and 226.

Table 7.2 The Sex Ratios¹ of the Migrant and Non-Migrant and Total Population in Funafuti, Other Islands Combined and Tuvalu, by Total Population and Age Groups 0 to 14 Years and 15 Years and Over²

Population Component	Population 0-14	Population 15+	Population all ages
Migrants in Funafuti	132	119	122
Migrants in Other Islands	99	73	82
Migrants in Tuvalu	115	99	104
Non-Migrants in Funafuti	110	86	93
Non-Migrants in Other Islands	120	66	81
Non-Migrants in Tuvalu	118	68	82
Total Population in Funafuti	123	107	111
Total Population in Other Islands	116	67	81
Total Population in Tuvalu	117	77	88

1. Defined as the number of males per 100 females

2. Including only people with a home island within Tuvalu

Island of Enumeration and Island of Residence

The population movements described above were deduced from differences between reported home island and place of enumeration. However this includes movements for brief visits, which may unduly inflate the migration figures. To overcome this, an additional question has been asked only to the indigenous population of 15 years and over. Although theoretically

more sound, the use of island of residence is not without difficulties. The major problem is the one of definition. The description given in the enumerator's manual reading 'The island where a person actually lives for most of the time and has firmly established a home for himself and his family' gave several problems during the enumeration and the processing of the data. An evaluation of the advantages and disadvantages of the use of island of residence is given at the end of this chapter. The results of the question are shown in Basic Table 18, which gives a cross-classification by sex of the home island and the island of residence. After a comparison between Basic Tables 18 and 17 and some other unpublished tables, it became clear that only about 1% of the population was not enumerated on its island of residence. In Funafuti there were 32 males and 25 females enumerated who were non-residents. Most of them, 25 males and 23 females, were actually residents of one of the other islands of Tuvalu, while the others were living outside the country. One person was enumerated in Niulakita but resident elsewhere. As a consequence the use of island of residence instead of island of enumeration would reduce the in-migration figures for the population of 15 years and over of Funafuti by 25 males and 23 females, which is a decrease of 3.5% and 3.9% respectively.

Lifetime migration and its direction

The share of the population component of 15 years and over in the movements of the total population has been discussed above. Basic Table 18 gives more details about the direction of the migration in this group of the population. The figures in one column can be read as numbers of out-migrants, with the island at the head of the column as island of origin and the islands in the various rows as islands of in-migration. Compared with the figures for Funafuti and Vaitupu, the migration streams between the other islands are of very modest size. Only the three northernmost islands of Nanumea, Nanumaga and Niutao experienced out-migrations of more than 10 persons directed towards a number of islands other than Funafuti and Vaitupu. Of the migration of the population of 15 years and over, 61.5% was directed towards Funafuti and another 20.4% towards Vaitupu. The remaining 18.1% had as destination one of the other islands*.

With the exception of Niutao, and to a lesser extent Nui, this distribution was duplicated by each of the islands separately (excluding Funafuti and Vaitupu). Of the migrants from Niutao, only one half of the males and one-third of the females had Funafuti as destination, partly because of migration towards Niulakita, the plantation island owned by the people of Niutao. Because of the small number of out-migrants from the Gilbertese-speaking island of Nui, the low share of females migrating towards Funafuti must be interpreted with caution.

Lifetime Migration: An Evaluation

Basic Tables 17 and 18 form a useful basis for a general description of migration as it occurred in the past. However for a proper understanding a number of inadequacies need to be mentioned. One of the main problems connected with the use of home island statistics for migration analysis is that the timing of the migration is unknown. The category 'migrants' includes those who came to their island of residence or enumeration only a few weeks before the census as well as those who came many years earlier. This problem has been partly overcome by the question

* These percentages and the absolute figures on which they are based only measure the net effect of migration which has taken place during the course of the lifetime of the surviving population.

on 'Duration of Residence' (see below). An essential shortcoming is the lack of knowledge about the last place of residence of the migrant. It is possible that a person lived in other places after he left his home island and before he was enumerated in, or became a resident of, a certain island. In practical terms this means that the in-migrants in Table 7.1 do not necessarily come directly from their home island. On the contrary, probably a considerable number of them were residents of a place outside Tuvalu, mainly the Gilbert Islands (see paragraph 'External Migration'). The question about 'Migration Experience' has not adequately filled this gap (see below).

Duration of Residence

Basic Table 19 gives a cross-classification of home island by island of residence and length of such residence for males and females of 15 years and over. The options for island of residence within Tuvalu are either 'Home Island', 'Funafuti' or 'Other Tuvalu islands'. The latter includes those people who are resident neither on their home island nor on Funafuti. The people with residence outside Tuvalu are listed as residents of Nauru, Overseas and Banaba. These (nine) people are not included in the overall total of Tuvalu. In interpreting data of this type, it is important to keep in mind that the figures shown in Basic Table 19 consist of migrants who survived and stayed since their arrival time in the place of residence till census time. As early arrivals in these places have been subjected to more years of exposure to mortality and re-departure (UN, Manual VI) than recent ones the figures of migrants with a longer stay in their place of residence understate the actual number of migrants at the time of movement. Despite this it can safely be concluded that the percentages for Funafuti shown in Table 7.3 highlight the very recent in-migration into Funafuti.

About 90% of the in-migrants resident on Funafuti during the census arrived in 1974 or later. Probably a great share of the in-migrants in the time period May 1974 - May 1977 were repatriates who came directly from the Gilbert Islands (mainly Tarawa) just before and after Separation, while it can be assumed that the majority of the in-migrants in the two years preceding the census had their home islands as last place of residence*.

Table 7.3 Percentage Distribution of Migration Streams of Males and Females by Duration of Residence for In-Migrants of Funafuti, 'Other Tuvalu Islands' and Residents on Their Home Islands¹

Duration of Residence in Years	Period of Arrival	Funafuti		Other Tuvalu Islands		Home Island	
		M	F	M	F	M	F
0- 2	May 1977 - May 1979	55.8%	58.3%	40.8%	37.5%	19.0%	14.9%
3- 5	May 1974 - May 1977	36.4	29.0	23.6	19.7	15.6	14.2
6-10	May 1969 - May 1974	3.8	5.0	5.8	10.3	11.7	9.2
11+	before May 1969	3.6	6.5	21.5	22.5	30.7	26.3
life	1964 and earlier	0.4	1.2	8.3	10.0	23.0	35.4
Total		100.0	100.0	100.0	100.0	100.0	100.0

1. Only persons of 15 years and over with home island within Tuvalu are included.

* Source: Government officials in Funafuti.

The figures for the combined other Tuvalu islands show a rather different pattern. The emphasis on the last five years is less pronounced and the number of long-term migrants is much higher. The percentages of migrants who spent their whole life on their island of residence are a good illustration of the reduced value of the home island as a reference point of migration. Ten residents of Funafuti and 58 residents of all other islands apparently have never been on their home island.

Basic Table 19 also shows the high mobility of the Tuvaluans in another way. People who are resident of their home islands are non-migrants according to the definition of lifetime migration. However, Table 7.3 indicates that only 23% of the males and 35.4% of the females have been resident on their home island for their whole life. The other 77% of the males and 64.6% of the females who have migration experience, but are resident on their home island now, can be described as return-migrants. An important part of the population component with duration of residence of less than five years is probably formed by the return-migrants from the Gilberts. Apart from the exceptional movements of the last few years, a rather steady exchange of (especially male) out-migrants and return-migrants has probably been taking place on the islands for a long time. The percentages are more evenly distributed than the ones for Funafuti and all other islands. Part of these migrations will have been directed to the 'traditional' work islands of Banaba and Nauru (see below).

The figures for Nauru, where 70% of the male and 54% of the female Tuvaluan residents of 15 years and over arrived in the last five years, form an illustration of the high turnover rates.

Migration Experience

The data on 'Duration of Residence' revealed a high mobility of the Tuvaluans enumerated in different parts of Tuvalu and in Nauru. In Basic Table 20 a cross-classification was given for males and females of the home islands and the 'principal work-migration islands' on which there was continuous residence for a period of more than 12 months. The census question was directed to migration to certain areas outside Tuvalu rather more than to the islands of Tuvalu itself. The design of the question was such that experience of residency on these islands was incompletely recorded. In the case that the island of usual residence was one of the islands of Tuvalu, but not Funafuti, the option on the card 'Other Tuvalu Island' was used to record this island of residence. This left no space available to note possible migration experiences within the country, except for those on Funafuti. This, combined with the fact that unfortunately a number of options in Basic Table 20 were aggregated, prevents a full description of the migration experience of the Tuvaluans*. One possible way of looking at the figures of Basic Table 20 is by comparing the total numbers of islands on which the males and females have been resident. Table 7.4 gives the percentage distribution of the different frequencies.

Apparently the males have left their home island with greater frequency than the females. About one-third of the males and one-fifth of the females have lived on at least two other islands. It is important

* It must be seen as one of the disadvantages of a hand-sorting of census data that the ways in which existing data can be combined and analysed are very limited unless considerably more time is available than was the case in Tuvalu. Computer analyses with the same data could reveal much more information (Wit, 1980, in press).

to note that these figures combine the migration experience of persons of different ages and as a consequence, different lengths of periods in which this experience could be built up.

Table 7.4 The Total Population of 15 Years and Over and the Number of Islands on Which They Have Lived¹

	M	F	M	F
None ²	447	903	21.4%	33.4%
1 ²	944	1212	45.1%	44.6%
2	176	438	22.6%	16.0%
3	192	138	9.2%	5.1%
4+	39	28	1.9%	1.0%
Total	2098	2719	100.0%	100.0%

1. Only includes people with home island within Tuvalu.
2. Persons with home island Funafuti and experience 'Funafuti only' are included in experience 'none'.

External Migration

It has been mentioned above that many of the Tuvaluans who were enumerated as in-migrants of an island of Tuvalu had not their home island, but other locations, often outside Tuvalu, as last place of residence. This also applies to many of the persons enumerated on their home islands. The questions on 'Duration of Residence' and 'Migration Experience' did not give satisfactory information about the movements of these Tuvaluans. In Table 7.5 an estimate has been made of the external migration of the Tuvaluans and its implications for the interpretation of the lifetime migration figures discussed above.

Because of the assumptions on which this estimate was based, the results presented in Table 7.5 should be used with some caution. The figure of 1228 gives an indication of the order of magnitude of the net migration of Tuvaluans between Kiribati (i.e. the Gilbert Islands) and Tuvalu (i.e. the Ellice Islands). This number covers both the repatriation from Tarawa in 1975 and 1976 and the return of Tuvaluans from Banaba. The migration of Gilbertese back to their home islands was of very limited size. The large return-migration of Tuvaluans was only counteracted by a small net out-migration of seamen and students and of workers (and their families) towards Nauru.

The consequences of the net in-migration for the numbers of people with the same home island are shown in Table 7.6. The figures in this table refer to groups of people for whom the same home island was recorded during the census, but obviously only some of them were actually living on their home island. The size of the net in-migration fluctuates considerably, mainly depending on the number of people outside the country in 1973 and the proportion of them who returned during the last five years. Based on their destination in Tuvalu, we can distinguish at least three categories within the population of return-migrants. The first is formed by those who resettled in their home island. The second consists of persons who settled on Funafuti or Vaitupa, many of them civil servants who were repatriated from Tarawa to the new capital and Tuvaluan students who were transferred from secondary schools in the Gilberts to Motufoua School on Vaitupu. The third category is made up of the people who moved to Funafuti, and Vaitupu to a lesser extent, after a period of

residence on their home islands. Together these categories may explain why the population enumerated on the 'outer islands' remained fairly constant on the whole (see Chapter 2), despite the large and recent growth of the population in Funafuti.

Table 7.5 External Migration of Tuvaluans and I-Kiribati¹ Between Tuvalu and Kiribati, Nauru and Overseas, in the Period December 1973 to May 1979

Tuvaluans Located in ²	Resident in 1973	Projected in 1979 ³	Enumerated in 1979 ⁴	Net External Migration
Tarawa	1227	1287) 654) - 862
Other Kiribati	218	229))
Banaba	652	684	318	- 366
Total Kiribati	2097	2200	972	-1228
Nauru	619	649	714	+ 65
Overseas	251	263	341	+ 78
Total	2967	3112	2027	-1058
I-Kiribati located in Tuvalu	157	165	105	- 60
Net return of Tuvaluans : 1058				
Net out-migration of I-Kiribati : 60				
Net-in-migration for Tuvalu : 998				

1. Including persons with home island respectively in Tuvalu and Kiribati.
2. The figures represent enumerated populations, except for Kiribati in 1973 where they refer to the number of residents.
3. The projections are based on the rate of natural increase at the time of the 1979 Census (see Chapter 2).
4. Figures for Kiribati are corrected for Tuvaluans who were enumerated both in the 1978 Census of Kiribati and the 1979 Census of Tuvalu. The figures for Nauru and Overseas are taken from Chapter 2.

Table 7.6 The Number of Tuvaluans of Each Home Island Living in Tuvalu in 1973 and 1979¹: an Estimation of External Migration Effects

Home Island	Resident in 1973	Projected in 1979 ²	Enumerated in 1979	Net External Migration
Nanumea	1088	1141	1316	+175
Nanumaga	539	565	855	+290
Niutao	1003	1052	1226	+174
Nui	570	598	667	+ 69
Vaitupu	870	913	1008	+ 95
Nukufetau	711	746	931	+185
Funafuti	639	670	716	+ 46
Nukulaelae	358	376	393	+ 17

1. The figures for resident and enumerated populations can be compared without much distortion.
2. The projections are based on the rate of natural increase at the time of the 1979 census (see Chapter 2).

Comments on Census Questions

In this census the home island was taken as an indication of the individual's place of origin. However, as an increasing number of people have never been on their home island, the value of this concept for the purpose of migration analysis has been reduced. Because of its importance from social and economic viewpoints the question about home island is still justified, but it is recommended that a question on place of birth be included as well in future censuses for all the persons enumerated.

To separate brief visits from 'real' migrations a question about 'Island of Residence' was included for the population of 15 years and over. The rather ambiguous definition of this concept in the enumerator's manual and a not very clear design of the card resulted in mixing up 'migration experience' and 'residence now' and caused many problems during the enumeration and the processing of the data. As only about 1% of that age group of the population was found resident on an island different from their island of enumeration, it seems that all the efforts have been of very limited value. However as the knowledge of island of residence is important in relation to other questions on migration (see below), a question on this would be a useful addition.

In the 1973 Census of the Gilbert and Ellice Islands a question was introduced about the island of residence during the previous (1968) census. In the 1979 Census this question was replaced by two others, in which a person was asked to mention his 'Duration of Residence' and the islands he had lived on for more than 12 months. Although the relevance of migration for a country with a mobile population was acknowledged by a series of questions in the 1979 Census, this combination did not give optimal results after analyses. It is therefore recommended that the question on 'Duration of Residence' be combined with a question about the last place of residence.

It is recognised that a census is not a survey and that the number of questions on the census form has to be restricted. Nevertheless it is suggested that, if future needs of Tuvalu would make migration, for example, to Nauru and Funafuti, a priority census topic, an open-ended question could be added asking a person to write down all the places where he had lived for more than a certain minimum period during the last 'x' number of years. If this question is included, it is important that the relevant dates be recorded as well.

Finally, it is recommended that at least the questions on home island and present and last place of residence be asked to the population of all ages.

Summary

Repatriation, mainly from the Gilbert Islands of Tarawa and Banaba, during the last five years caused an estimated net return of about 1200 Tuvaluans. Many of these people did not resettle on their home islands but became residents of the islands of Funafuti and, to a lesser extent, Vaitupu. In addition, considerable numbers of Tuvaluans left their home islands in recent years to migrate to Funafuti and Vaitupu. These movements, combined with migration of minor importance in earlier periods, resulted in the fact that almost one-third of the population was not enumerated on their home island; Funafuti alone counted 60% of this group. A quarter of these migrants had Nanumea as their home island, while another 50% originated from the three islands of Niutao, Nukufetau and Nanumaga. In the migration towards Funafuti the male (young) working population was strongly over-represented. On the whole males were more involved in the migration within Tuvalu, but the sex ratios were not as unbalanced as for the migration towards Nauru and Overseas. The high mobility of the Tuvaluan population was illustrated by the fact that only

23% of the males and 35% of the females of 15 years and over had been resident on their home island only. Of the same age group one-third of the male and one-fifth of the female population had lived during their lifetime on at least two other islands, mainly Funafuti, Tarawa, Banaba and Nauru.

CHAPTER 8

SOCIAL CHARACTERISTICS

Nico Wit

Section 1: Religion

Introduction

A question on religion was included in the questionnaire, but in the Census Ordinance the statement of religious belief was optional. The enumerators were instructed to record 'refused' in case anyone was not prepared to reveal his religion. In fact, this happened only once. The persons who claimed not to belong to any religion and not to have any religious beliefs were recorded as 'no religion'. For children the enumerators recorded the religion named by the parents and guardians.

A breakdown of the religion of the population of Tuvalu is given in Basic Table 9 for male and female adults and children, by island of enumeration.

Religious Denominations

The vast majority of both the male and female (indigenous) population were adherents of the Tuvalu Church (the former Ellice Islands Protestant Church). In 1973 and 1979 only about 3% of the people enumerated in Tuvalu (i.e. the Ellice Islands) were recorded as belonging to another religion. However, the distribution within the group of other religions has changed since the census enumeration of 1973. The number of Roman Catholics has decreased from a total of 41 to 18 persons, while the Gilbert Islands Protestant Church has no longer representatives in Tuvalu. On the other hand the Baha'i communities showed a remarkable growth. For the first time a number of Jehovah's Witnesses have been recorded in Tuvalu. The position of the Seventh Day Adventists, the second largest religion in Tuvalu, remained the same. The changes mentioned above may be partly caused by external migration, especially between Kiribati and Tuvalu.

The proportion of children in the different religious groups did not show major deviations from the proportion in the total population. In general the ratio between the age groups 0 to 14 and 15 years and over was slightly lower among the adherents of the small religions than among those who belong to the Tuvalu Church.

Distribution by Island

The percentage of adherents of the Tuvalu Church varied from (almost) 100% in Nanumaga, Nukulaelae and Niulakita to 96% and 94% on Nanumea and Funafuti. On Funafuti, where the religious diversification is the largest, there are new communities of Jehovah's Witnesses and Roman Catholics. New Baha'i communities are found on Vaitupa and Nukufetau, while the already existing communities on Nanumea and Funafuti have grown substantially. Of the Roman Catholics enumerated on Nanumea, Nui and Niulakita in 1973, only a small number on Nui remained.

When comparing the figures of 1973 and 1979 other small differences are noted. The deviations may be explained through conversion to another religion, but the migration of persons and families of certain denominations is probably also a major cause.

Section 2: Education

Introduction

The enumerators were instructed to ask the respondents whether they were attending school or university (Question K). For all persons, the enumerators also recorded the class they were attending during the census or, if they had already left school, the highest class they ever reached. The answers given to these questions have been tabulated in Basic Tables 6 and 7.

School Attendance

Of the indigenous persons enumerated in Tuvalu in 1979, 823 males and 751 females were attending school. These numbers are lower than in 1973, when 864 males and 807 females attended primary or secondary school in the Ellice Islands. This decrease might be surprising against the background of rapid population growth during the last five years. Its major cause is an essential change in the age structure of the population. The share of the total population in the most relevant age group, that of 5 to 14 years old, dropped from 30.2% in 1973 to 23.3% in 1979 (see Chapter 3). More details of school attendance are shown in Table 8.1, where a breakdown is given of school children according to age and sex for 1973 and 1979.

Table 8.1 The Number of Indigenous Males and Females Attending School per 100 in Each Age or Age Group Enumerated in Tuvalu (i.e. the Ellice Islands) in 1973 and 1979

Age	1973		1979	
	M	F	M	F
0-4	6	6	-	-
5	42	30	10	17
6	64	59	95	95
7	86	92	96	95
8	99	95	100	100
9	98	99	100	97
5-9	78	75	84	81
10	98	96	98	100
11	97	94	97	100
12	93	97	93	97
13	92	92	93	92
14	87	81	60	71
10-14	93	93	88	92
15	62	60	13	33
16	30	19	5	11
17	12	2	13	9
18	2	4	7	4
19	2	-	5	4
15-19	24	19	9	12
20+	-	-	-	-
TOTAL	32	26	24	20

The data will be slightly affected by misreporting of ages, but in general a clear picture emerges. At the age of six, 95% of the children attend school and this proportion remains at about this level till the age of 13, at some ages even reaching 100%. It starts to drop at the age of 14, and the decline becomes very marked for children 15 years old. The fact that school attendance is compulsory for children of 14 years of age makes it rather surprising that, according to the 1979 Census results, about 40% of the males and 30% of the females of that age have already left school. Up to the age of 13 there are no important differences between the two sexes, except that the girls seem to start their primary school at a lower age. However in the age group 14 to 16 the proportions of females are much higher, while the reverse is true to a lesser extent for the ages 17 to 19. Apparently the reason behind this must be looked for in the sex composition of children undergoing secondary education (see below).

A comparison of the figures of 1979 with those of 1973 shows some noteworthy differences. In 1973 the children seemed to go to school at a lower age*, but the increase in the proportion was slower; it reached the level of 95% and more only at the age of 8. The attendance rates in the age group 6 to 13 were slightly lower during the 1973 Census. Important inequalities found in the higher age groups will be discussed below.

Primary and Secondary School Attendance

Breakdowns of the school attendance of males and females of 5 to 19 years of age by educational level are given in Tables 8.2 and 8.3 for 1973 and 1979.

Table 8.2 The Number of Indigenous Males and Females Attending and Not Attending Primary or Secondary School per 100 Enumerated in Each Age Group in the Ellice Islands in 1973

CLASS	5-9		10-14		15-19		
	M	F	M	F	M	F	
Primary	1-2	55	45	3	3	-	-
	3-5	<u>23</u>	<u>30</u>	<u>41</u>	<u>41</u>	<u>3</u>	<u>1</u>
	1-5	78	75	44	44	3	1
	6-7	-	-	32	35	4	3
	8-9	-	-	16	15	9	10
Total Primary	78	75	92	94	16	14	
Total Secondary ¹	-	-	6	4	8	5	
Total not Attending	22	25	2	2	76	81	
General Total	100%	100%	100%	100%	100%	100%	

1. Including only Form I-IV; the upper forms could not be attended in the Ellice Islands

* Some caution is needed here as, according to the instructions of the enumerator's manual of 1973, children under 6 years of age were not expected to attend school. The policy in Tuvalu in 1979 was to admit children of six or almost six ('five-plus') years old.

Table 8.3 The Number of Indigenous Males and Females Attending and Not Attending Primary or Secondary School per 100 Enumerated in Each Age Group in Tuvalu in 1979

CLASS	5-9		10-14		15-19	
	M	F	M	F	M	F
Primary						
1-3	45	44	1	-	-	-
4-5	34	33	12	13	-	-
1-5	78	77	13	13	-	-
6-7	5	4	35	30	-	-
8-9	-	-	25	24	3	3
Total Primary	84	81	73	67	3	3
Total Secondary	-	-	15	24	6	9
Total not Attending	16	19	13	8	91	88
General Total ¹	100%	100%	100%	100%	100%	100%

1. Sometimes the figures do not add up to exactly 100% because of rounding of errors.

Primary School

Both tables show a rather different pattern of attendance rates for the three age groups. Being slightly higher for the youngest children, they are noticeably lower for the other age groups in 1979. A probable conclusion could be that the children leave primary education earlier in 1979 than in 1973. For the ages 10 to 14 this decrease has been accompanied by a higher proportion of children in secondary education.

A comparison of age distribution over the different classes seems to confirm these findings, as it suggests that nowadays the children move faster through their primary education: children of the same age group have reached higher classes in 1979 than in 1973. However there are strong indications that this development is caused to an uncertain extent by inaccurate data. For every primary class there are minimum age levels*, which makes it rather suspicious that many children in ages 5 to 9 attend Classes 4 and 5 and that some of them even have reached Class 6 or 7. A closer examination of the classes attended by the children of 10 to 14 years of age revealed similar cases (see Basic Table 6). The causes behind this are not clear but, possible sources of error are either the answers given by respondents or the coding of these answers by the enumerators. According to Chapter 3, the possibility of incorrect ages of the children at school is not a very likely one.

* Source: Education Division, Ministry of Social Services. Children in Class 1 should be at least six or almost six years old at the beginning of the school year. For every class higher this age limit increases by one year.

Secondary School

A description of developments in attendance at secondary schools must include those Tuvaluans who attend secondary schools outside Tuvalu. Before Separation, many children from the Ellice Islands were enrolled in schools in the Gilberts, mainly in Tarawa, while presently the major flow is towards Fiji. The figures in Table 8.4, in which these outside students are shown as well, confirm the earlier finding that more children attained secondary education in 1979 than at the time of the previous census*.

Table 8.4 The Number of Indigenous Males and Females Attending Secondary Schools in Tuvalu and Some Other Places per 100 Enumerated in Each Age Group in 1973 and 1979

Age	Sex	1973 G.E.I.C.		1979 Tuvalu	
		Form I-IV	Form V-VI	Form I-IV	Form V-VI
10-14	M	6	-	15	-
	F	4	-	26	-
15-19	M	13	2	3	6
	F	10	3	6	5
10-19	M	9	1	10	3
	F	7	1	16	3

The table also shows that the mean age of the students within Forms I to IV has dropped markedly, while the majority of the students in the age group 15 to 19 are now attending the upper forms. The attendance rates for males and females show quite a different development. Since 1973 the sex ratio for the lower forms has changed fundamentally in favour of females. However, the fact that this change did not take place in Forms V and VI must lead to the conclusion that girls are more likely to terminate their secondary education after Form IV.

Differences between the Islands

A description of the secondary school students by island of origin is not possible as their home islands were not included in the basic tables on education. The very small numbers must restrict the discussion of inter-island differences to a few general comments. The total attendance rates of the age groups 5 to 9, 10 to 14 and 15 to 19 years old show some fluctuations, probably caused by varying levels of school attendance at the age of 5 and 14; a feature for which the reasons are not exactly clear. The age distribution over Classes 1 to 5 and 6 to 9 shows also some variation, which may be due to differences in the school situation on the islands, but it is likely that the inaccuracy of the data will also be of influence.

* For 1973, the percentages have been derived by dividing the total number of Ellice students in the Colony by the Polynesian population enumerated in the G.E.I.C. Figures for 1979 have been taken from Basic Table 6 and from Government and Church records which include most of the students in Fiji.

Educational Attainment of the Population of 15 Years and Over

Primary education has a long history in Tuvalu, which may account for the high educational level of both the male and female populations. According to Table 8.5, in which a breakdown of the educational level is given for selected age groups, almost 100% of the indigenous population of 15 years and over, even people in the oldest age group, has had at least some years of primary education, while the majority has reached Classes 6 to 9.

Table 8.5 The Number of Indigenous Males and Females by Educational Level per 100 Enumerated in Tuvalu in the Same Age Group in 1979

Age	Sex	No Education	Class 1-5	Class 6-9	Form I-II	Form III-VI	Post-Secondary	Total ¹
15-19	M	-	4	83	4	9	-	100
	F	1	2	83	5	9	-	100
20-24	M	-	7	69	7	17	1	100
	F	2	9	73	4	13	-	100
25-34	M	-	16	62	6	14	3	100
	F	-	13	75	2	9	-	100
35-44	M	-	19	66	5	9	1	100
	F	-	19	80	-	1	-	100
45-54	M	-	30	68	1	1	1	100
	F	-	28	72	-	-	-	100
55+	M	1	32	67	1	1	-	100
	F	2	43	55	-	-	-	100
TOTAL	M	-	18	70	3	8	1	100
	F	1	19	73	2	6	-	100

1. Sometimes the figures do not add up to exactly 100 because of rounding of errors.

The proportion of males and females with five years or less of education shows a steady decline from the highest to the lower age groups, while during the period since the last World War, the number of people with some form of secondary education increased markedly, from almost nil to about 20 out of every 100 people enumerated of 20 to 24 years of age. The proportions in the age group 15 to 19 seem to imply a recent change in this trend but this is caused by a number of students who are still attending secondary school (see Table 8.1). During the rise in the educational level of the population males always have been ahead of females, the difference being mainly of importance where it concerned the secondary education. A small number of people, nearly all males, have obtained a degree or diploma by studies in universities and other institutes overseas*.

* This number is likely to grow, according to government and church records of students who attain post-secondary education.

Differences between the Islands

The educational level of the population of the islands is only partly a reflection of their school situation and school attendance in the past. Most of the islands have been affected by migration on a considerable scale and as a consequence many people do not live on the islands where they had their education. This is especially true for males and females who have some kind of secondary education. More than 50% of the indigenous population of 15 years and over who have attained Forms I and II were enumerated in Funafuti, while this percentage was about 60% for the people with at least Form III. These figures are not really surprising when we take account of the distribution of employment opportunities in Tuvalu.

Comments on Census Questions

The two questions which were asked by the enumerators seem to be sufficient to derive a series of basic statistics about the educational situation in the country. However it is clear that apparently considerable numbers of children have been wrongly classified. In order to improve the reliability of answers and coding it is recommended that a thorough check is made with the age of the respondent while the enumerators are still in the field. As this census was held in May, in the middle of the school year, the description 'highest class completed' could cause confusion for those still attending. It is recommended that when the census date is not between two school years the 'highest class completed' be supplemented by 'class attended now' for the children still at school.

Summary

About 95% of the children between the ages of 6 and 13 were attending school, while the percentages for those of 14 years old were markedly lower in spite of the fact that school attendance is compulsory at this age. The most surprising finding for secondary education was the much higher attendance rates for females than for males in Forms I to IV. The majority of the population had 6 or more years of primary school while the increasing numbers of secondary school leavers indicate a further rise in the educational level of the population.

Section 3: Ethnic Components

Introduction

The ethnic origin of all persons enumerated in the census has been recorded (Question M). A comparison of the distribution of the population by ethnic origin in 1973 and 1979 could not be made because of problems concerning the reclassification of ethnicity between the two censuses (see Chapter 2). In Basic Table 4 a breakdown is given of the ethnic components by sex and five-year age groups for the population of all the islands of Tuvalu.

Ethnic Origin of the Population

In 1979, 645 persons (8.8% of the total population) were enumerated who were of non- or partly non-Tuvaluan origin. The close historical ties between Tuvalu and Kiribati are illustrated by the fact that more than 50% of these persons had parents of 'Tuvaluan/I-Kiribati' origin. A very high proportion of the male component especially was below 15 years of age. The ethnic component with I-Kiribati or partly I-Kiribati (not Tuvaluan)

parents mostly consisted of females in the age groups 20 to 39. Presumably the majority of these women were married to Tuvaluan men living in the Gilberts who brought them to Tuvalu after Separation. The age and sex structure of the population with 'Tuvaluan/Other' origin closely resembled that of the total population, while the small number of people originating from other countries in the Pacific were mainly of the young working age group (age 20 to 34). Finally, 12% of the non- and partly non-Tuvaluan population was of 'Non-Pacific', mainly 'European', origin. The high proportion of young children and people in the age group 25 to 39 reflects the high frequency of young families in this population group.

Distribution on the Islands

People of non- or partly non-Tuvaluan origin were enumerated on all the islands of Tuvalu, but their numbers varied considerably. As could be expected, a great share of them was enumerated on Funafuti, where they made up 12% of the total population. About 75% on the average of the ethnic components 'Tuvaluan/Other', 'Other Pacific' and 'European' lived on the main island, which could be seen as an indication of their strong ties with capital-bound activities.

On the island of Nui 19% of the population was of 'I-Kiribati' or 'Tuvaluan/I-Kiribati' origin. This very high proportion can probably be explained by the historical, special relationship between the population of Nui and Kiribati originating from the settlement of a number of Gilbertese people on the island. The Gilbertese language is still widely used on Nui. With the exception of Vaitupu, the non- and partly non-Tuvaluan ethnic components form only very limited proportions of the populations of the remaining islands.

ECONOMIC CHARACTERISTICS

Geoffrey Bertram

Labour Force and Employment

The 1979 Census recorded 5,421 indigenous Tuvaluans aged 15 years or over, of whom 478 were normally resident outside Tuvalu (mostly on Nauru) and 4,943 were normally resident in Tuvalu. In addition to this de jure labour force reported in the Census, separate enquiries have established that there were 255 male Tuvaluans employed overseas as seamen in May 1979, giving a total of 5,676 Tuvaluans of working age* (here defined as fifteen and over). The distribution of these people of working age among various categories of activity is given in Basic Table 28.

Table 9.1 provides a breakdown of this de jure labour force among four general categories of activity. Village life and home duties emerge as the dominant activity, occupying 44% of males and 76% of females of working age. Cash employment in Tuvalu accounts for 25% of males and 8% of females, and cash employment outside Tuvalu accounts for 21% of males and 1% of females recorded in the table.

Table 9.1 De Jure Indigenous Population 15 Years and Over,
by Type of Activity

	Male		Female		Total	
	No.	%	No.	%	No.	%
Village life and home duties	1,200	44.2	2,256	76.2	3,456	60.9
Cash employment in Tuvalu	671	24.7	231	7.8	902	15.9
Cash employment outside Tuvalu	570 ¹	21.0	21	0.7	591	10.4
Other ²	274	10.1	453	15.3	727	12.8
TOTAL	2,715 ¹	100.0	2,961	100.0	5,676	100.0

1. Including 255 seamen employed overseas but not included in census.

2. Including unemployed, and those engaged in home duties outside Tuvalu.

* This figure is a minimum for the de jure indigenous labour force, since it excludes most of the Tuvaluans living in Fiji, Samoa, Australia, New Zealand and Kiribati; only those who were in Tuvalu at Census time were recorded. At the time of the 1973 Census an attempt was made to locate all Ellice Islanders living outside the GEIC and Nauru; the result was 514 individuals (of all age groups) of whom 153 were in Kioa (Fiji) and 129 were in Samoa (Census 1973, Provisional report).

In general terms, thus, the male population of working age comprised 44% village workers, 46% cash workers, and 10% dependents and unemployed. The female population of working age comprised 76% village workers, 9% cash workers, and 15% dependents and unemployed. If those Tuvaluans employed overseas but omitted from Table 9.1 were taken into account, the proportion in cash employment would be raised somewhat.

In interpreting these data, it needs to be borne in mind that the village economy and the cash economy are by no means separate entities. Movement between the two is easy in Tuvalu, and the village economy itself includes an important cash-earning component in the production of copra from family lands. As is discussed below, the division of labour in the Tuvalu economy takes the form of specialisation within the family, rather than specialisation by families as economic units.

The economic activities of indigenous residents of Tuvalu are analysed in Table 9.2, which compares the results of the 1979 Census with those of the 1973 Census. In this table, 'home duties' has been included with 'not economically active' in order to achieve comparability with the 1973 Census tables, in which these two categories cannot be separated*.

Table 9.2 Resident Indigenous Population aged 15 Years and Over, by Activity: 1973 and 1979.

		1973	1979	Difference
Active in village life	M	936	1,197	+ 261
	F	1,376	1,749	+ 373
	T	2,312	2,946	+ 634
Employed in Cash Economy	M	368	671	+ 303
	F	73	231	+ 158
	T	441	902	+ 461
Unemployed	M	8	84	+ 76
	F	-	78	+ 78
	T	8	162	+ 154
Total economically active or seeking work (excluding those in home duties)	M	1,312	1,952	+ 640
	F	1,449	2,058	+ 609
	T	2,761	4,010	+1,249
In home duties and those not economically active	M	212	181	- 31
	F	578	752	+ 174
	T	790	933	+ 143
Total resident indigenous population aged 15 years and over	M	1,524	2,133	+ 609
	F	2,027	2,810	+ 783
	T	3,551	4,943	+1,392

Between 1973 and 1979 the resident population aged fifteen and over increased by 1,392. Of this total increase 634 (46%) were absorbed into productive activity in the village sector, 461 (33%) were absorbed into cash employment, 154 (11%) were added to the unemployed, and 143 (10%) were in home duties or dependents. Thus although the share of the village sector

* As is noted below, the figures are affected by a tendency of women of Funafuti to switch from 'village life' to 'home duties' in describing their occupations in 1973 and 1979 respectively. It is not clear whether this corresponds to any actual change in their occupational status.

in total employment fell from 65% to 60%, this sector remained the leading employer of new recruits to the labour force; and the inclusion of 'home duties' along with 'active in village life' would strengthen this conclusion. Meanwhile employment in the cash economy within Tuvalu roughly doubled between 1973 and 1979, absorbing about one-third of the net additions to the labour force over the period.

Unemployment (that is, people seeking access to work in the cash economy) was the third largest 'absorber' of additions to the labour force, although in practice many of the 'unemployed' would have remained active in the village sector while seeking cash work.

The rising proportion of the resident labour force employed in the cash economy represents an acceleration of a trend evident since the Second World War. The 1947 Census reported 141 males and 12 females in cash employment - about 6% of the population aged 15 and over. By 1973 there were 368 males and 73 females - or 12.4%; and by 1979 this had risen to 671 males and 231 females - 18.2%. Most of this increase was made possible by the rapid expansion of the Government sector in the period leading up to independence of Tuvalu from the former Gilbert and Ellice Islands Colony. Outside the Government, few activities in Tuvalu's economy are organised on a cash-wage basis and there is no apparent tendency for these to increase (see below).

Rates of female participation in the cash economy remain low, despite a considerable increase from 3.6% in 1973 to 8.2% in 1979.

Table 9.3, also based upon Basic Table 23, shows how the expansion of employment in the cash economy has been distributed among the islands of Tuvalu between 1973 and 1979. During the five years, an additional 461 cash-earning jobs were established, of which 458 were in Funafuti and Vaitupu. The net increase in cash employment in the other seven islands taken together was 3. Among males, actual cash employment outside Funafuti and Vaitupu fell by five, while for females it increased by eight. The general conclusion is that the expansion of cash employment was confined entirely to the two islands of Funafuti and Vaitupu, with the cash sector stagnant on all other islands. The result was that economic activity of this kind was progressively concentrated. In 1973, 70% of total cash employment was in Funafuti and Vaitupu, while by 1979 this had risen to 85%.

By the same token, the importance of the village economy on islands other than Funafuti and Vaitupu was considerably increased. Table 9.4 shows the numbers of people 'active in village life' by island in 1973 and 1979. An additional 261 males and 373 females were recorded in 1979 as compared with 1973, and of the 261 increase in male activity in the sector, 142 (over half) was in islands other than Funafuti and Vaitupu. It is striking that alongside the rapid expansion of cash employment in Funafuti there took place also a rapid expansion in the number of males reported active in village life on that island - sufficient in fact to raise the proportion of the Funafuti male labour force engaged in this sector from 13% in 1973 to 20% in 1979. Probably a considerable number of these would have been operating on the fringes of the growing cash economy, or waiting to be recruited into the cash sector.

The Funafuti figures for female participation in village life reflect a sharp increase in the number of women describing themselves as engaged in 'home duties'. The distinction between this and 'active in village life' is not at all clear, and comparison of the 1973 and 1979 results strongly suggests that many women on Funafuti who in 1973 described themselves in the latter category, switched to the former in 1979; this accounts for the decline in the number of females in the Funafuti village sector in Table 9.4.

Table 9.3 Resident Indigenous Population aged 15 Years and Over,
Employed in the Cash Economy, by Island, 1973 and 1979

Island	1973	1979	Change
a) MALES			
Nanumea	21	26	+ 5
Nanumaga	11	9	- 2
Niutao	24	14	- 10
Nui	16	16	0
Vaitupu	21	88	+ 67
Nukufetau	19	18	- 1
Funafuti	246	487	+241
Nukulaelae	8	11	+ 3
Niulakita	2	2	0
Total males	368	671	+303
b) FEMALES			
Nanumea	8	8	0
Nanumaga	4	6	+ 2
Niutao	7	7	0
Nui	4	6	+ 2
Vaitupu	12	28	+ 16
Nukufetau	6	6	0
Funafuti	28	162	+134
Nukulaelae	4	7	+ 3
Niulakita	0	1	+ 1
Total females	73	231	+158
c) TOTAL, MALE AND FEMALE			
Nanumea	29	34	+ 5
Nanumaga	15	15	0
Niutao	31	21	- 10
Nui	20	22	+ 2
Vaitupu	33	116	+ 83
Nukufetau	25	24	- 1
Funafuti	274	649	+375
Nukulaelae	12	18	+ 6
Niulakita	2	3	+ 1
TOTAL	441	902	+461

Table 9.4 Resident Indigenous Population aged 15 Years and Over,
'Active in Village Life', by Islands, 1973 and 1979¹

Island	1973	1979	Change
a) MALES			
Nanumea	170	189	+ 19
Nanumaga	107	138	+ 31
Niutao	148	177	+ 29
Nui	114	151	+ 37
Vaitupu	164	175	+ 11
Nukufetau	115	114	- 1
Funafuti	41	149	+108
Nukulaelae	63	85	+ 22
Niulakita	14	19	+ 5
Total males	936	1,197	+261
b) FEMALES			
Nanumea	140	292	+152
Nanumaga	178	200	+ 22
Niutao	250	305	+ 55
Nui	167	220	+ 53
Vaitupu	228	289	+ 61
Nukufetau	173	244	+ 71
Funafuti	176	63	-113
Nukulaelae	62	122	+ 60
Niulakita	2	14	+ 12
Total females	1,376	1,749	+373
c) TOTAL, MALES AND FEMALES			
Nanumea	310	481	+171
Nanumaga	285	338	+ 53
Niutao	398	482	+ 84
Nui	281	371	+ 90
Vaitupu	392	464	+ 72
Nukufetau	288	358	+ 70
Funafuti	217	212	- 5
Nukulaelae	125	207	+ 82
Niulakita	16	33	+ 17
TOTAL	2,312	2,946	+634

1. 'Home duties' excluded.

Basic Table 24 provides information on the relationship between age and type of activity, for Funafuti and the rest of Tuvalu. Table 9.5 presents some percentages calculated from this data, which bring out four features of the employment situation in Tuvalu:

- a) The relatively younger composition of the labour force in Funafuti compared with the rest: 76% of males and females aged 15 and over on Funafuti are between the ages of 15 and 44, compared with 62% of males and 67% of females on the other islands. This presumably reflects the impact of in-migration to Funafuti of people in their twenties and thirties seeking employment in the cash economy.
- b) The greater weight of younger age groups in cash employment in Funafuti as compared to the rest: 64% of males and 85% of females employed in this sector in Funafuti were under 35, compared with 45% of males and 77% of females elsewhere. This presumably reflects the recent rapid growth of this sector in Funafuti, in contrast to its relatively stagnant character on the outer islands. The age composition of cash employment for females is very much more youth-dominated than that for males both in Funafuti and elsewhere, due probably to different career structures (as women marry and move from cash employment to home duties).

Table 9.5 Age Composition of Indigenous Population Involved in Selected Activities, 1979

Age Group	Percentage Share of Persons in Activities Shown							
	Total Pop. aged 15 and over		Employed in Cash Economy		Active in Village Sector ¹		Unemployed	
	Funafuti	Other	Funafuti	Other	Funafuti	Other	Funafuti	Other
a) MALES								
15-24	38	37	37	17	43	40	31	18
25-34	24	14	27	28	13	12	44	36
35-44	14	11	18	29	8	9	2	18
45-54	12	16	12	20	14	16	16	20
55+	12	22	6	6	22	23	7	8
Total	100	100	100	100	100	100	100	100
b) FEMALES								
15-24	36	32	47	34	32	30	42	91
25-34	26	20	38	43	21	22	28	9
35-44	14	15	11	15	16	16	15	-
45-54	13	12	4	4	17	14	12	-
55+	11	21	-	4	14	18	3	-
Total	100	100	100	100	100	100	100	100

1. Including 'home duties'.

- c) The dominant role of young (under 25) and old (55 and over) males in the village sector labour force: 65% of male workers in this sector in Funafuti, and 63% on the other islands, were in these age categories. The pattern is much less marked for females. The pattern is consistent with a male career cycle beginning in village life, moving into

cash employment in Tuvalu or overseas during the main earning years (between mid-twenties and late forties) and then returning to village life.

- d) The predominance of younger age groups among the unemployed, except for a bulge among males aged 45-54. The former pattern is to be expected as young persons seek recruitment into cash employment; the middle-aged bulge may consist of returning migrant workers. The numbers involved, however, are too small to enable firm conclusions to be drawn; and the unemployment data themselves have to be interpreted with caution.

More detail on the composition of employment in the cash economy is provided in Basic Tables 25, 26 and 27. Basic Table 26 shows cash employment by age group and industry for the 902 indigenous persons employed (see Table 9.1 above) and 34 persons of non-Pacific origin. For both groups, the bulk of cash employment is in services and construction. Sixty-four percent of total cash employment is in the sectors 'utilities', 'commerce', 'transport', 'companies' and 'community services'. A further 25% is in construction. Directly productive activities (agriculture, fishing, mining and manufacturing) account for no more than 11% altogether, of which 6% are in the printing industry, 3% in agricultural services, and 2% in fishing. The dominance of tertiary activities is greatest in the outer islands (75% in utilities, commerce, transport, companies, administration and services compared with 63% in Funafuti).

This employment structure is summarised in Table 9.6. The striking feature of these figures, borne out by the detailed information in Basic Table 23, is that none of the major market-oriented activities of the Tuvalu economy (copra production, fishing, handicrafts production) is a major provider of cash employment. All these activities remain organised on non-capitalist lines within the village economy. The individual private entrepreneur and the private firm remain rarities in Tuvalu, with the great bulk of cash employment being provided by the Government and the cooperative sectors. Only in construction, and to a limited extent in fishing, are there any signs of private employers emerging; in the former case, the government and non-Tuvaluan firms still account for most of the employment offered.

The virtual absence of private entrepreneurs is evident from Basic Table 23, which lists only three locally-resident indigenous employers, all of them on Funafuti. In addition there were ten persons self-employed (six of them female), also all on Funafuti. The 1973 Census recorded one female employer (on Niutao) and three self-employed (one female on Nui; one female and one male on Nukufetau)*. These figures are all too small to have much significance. If any trend is indicated, it is the disappearance of individual enterprises outside Funafuti, accompanied by their very limited appearance in the Funafuti economy (mainly as cinema operators and store-keepers) with a very small group of employers in fishing and construction.

Of the 936 jobs covered by Basic Table 25, those in printing, electricity, communications, administration, sanitation, education, health and libraries can all be attributed to Government - a total of 403. In addition the Government is the main employer in agricultural services (25 jobs),** hotels and bars (13 jobs), water transport (31 jobs) and banks (7 jobs) which would bring Government employment up to over half the total, without

* 1973 Census, Table 23, pp. 139-140.

** Strictly speaking, there are no banks in Tuvalu; these workers would have been either working as Treasury cashiers in the Government (possibly three persons) or cashiers elsewhere, possibly in cooperative stores. Hence the inclusion of this group as 'mainly employed by Government' may not be justified.

counting Government construction. There is no doubt, thus, that Government is the country's dominant employer. Cooperative enterprises account for most of the wholesale and retail trade employment (87 jobs) and land transport (14 jobs), that is for possibly 10% of total employment, together with some of the employment in construction. These figures are only rough estimates; the census did not include any question identifying employers. Other independent sources, however, indicate similar orders of magnitude. A set of estimates constructed for 1976 (Knapman *et al.*, 1976) showed the Government and the Philatelic Bureau employing 330 persons, the cooperative societies 83, and two private construction companies (the larger one owned by a non-Tuvaluan) 65 between them. The 1979 Civil List showed 285 established employees of Government (compared with 214 in 1976). Adding non-established staff and the employees of the Philatelic Bureau would again result in a figure somewhat over 400.

Table 9.6 Employment in the Cash Economy, by Sector, 1979

Sector	Resident Indigenous Population			Non-Pacific Islanders	Total
	Funafuti	Other Tuvalu	Total Indigenous		
a) NUMBERS EMPLOYED					
Agriculture and fishing	9	29	38	4	42
Mining ¹	1	-	1	-	1
Manufacturing	62	-	62	-	62
Utilities	13	1	14	-	14
Construction	191	33	224	5	229
Commerce	65	33	98	2	100
Transport	89	18	107	4	111
Companies (banking etc.)	11	-	11	2	13
Government administration	115	62	177	5	182
Community services (health, education, missions, etc.)	70	63	133	11	144
Personal services	23	14	37	-	37
Unspecified	-	-	-	1	1
Totals	649	253	902	34	936
b) PERCENTAGES					
Agriculture and fishing	1.4	11.5	4.2	11.8	4.5
Mining ¹	0.2	-	0.1	-	0.1
Manufacturing	9.6	-	6.9	-	6.6
Utilities	2.0	0.4	1.6	-	1.5
Construction	29.4	13.0	24.8	14.7	24.5
Commerce	10.0	13.0	10.9	5.9	10.7
Transport	13.7	7.1	11.9	11.8	11.9
Companies (banking etc.)	1.7	-	1.2	5.9	1.4
Government administration	17.7	24.5	19.6	14.7	19.4
Community services	10.8	24.9	14.7	32.4	15.4
Personal services	3.5	5.5	4.1	-	4.0
Unspecified	-	-	-	2.9	0.1
Totals	100.0	100.0	100.0	100.0	100.0

1. One phosphate miner, almost certainly employed on Banaba or Nauru, has been recorded as a Funafuti resident in the Census. There is no phosphate mining in Funafuti.

Basic Tables 26 and 27 provide detailed information on the occupational composition of the population employed in the cash economy. These figures are summarised in Table 9.7 which brings out the wide occupational spread of the indigenous population and the specialised role played by foreigners in the labour force.

Table 9.7 Occupational Classification of Residents Employed in the Cash Economy
(percentages in brackets)

Occupational Category	Indigenous Population						Non-Pacific Islanders		Total	
	Funafuti		Other Tuvalu		Total Tuvalu					
Professional-technical	86	(13)	76	(30)	162	(18)	22	(65)	184	(20)
Administrative-managerial	19	(3)	5	(2)	24	(3)	2	(6)	26	(3)
Clerical and related	142	(22)	30	(12)	172	(19)	1	(3)	173	(18)
Sales workers	44	(7)	33	(13)	77	(9)	2	(6)	79	(8)
Service workers	61	(9)	24	(10)	85	(9)	-		85	(9)
Agriculture & fishing	6	(1)	24	(10)	30	(3)	4	(12)	34	(4)
Production workers	291	(45)	61	(24)	352	(39)	3	(9)	355	(38)
Totals	649	(100)	253	(100)	902	(100)	34	(100)	936	(100)

Of the 34 non-Pacific islanders employed, 27 (over three-quarters) were in skilled white-collar jobs*. Most of these were in the 'professional and technical' category, including four engineers, seven teachers, two electrical technicians and two ministers of religion. Indigenous Tuvaluans occupy positions throughout the occupational scale, outnumbering or equalling foreigners in all except four of the 61 occupations shown in Basic Table 26. (The four professions in which foreigners predominate are civil engineers, accountants, economists and ministers of religion.)

Unemployment

It has already been seen (Table 9.2 above) that the number of persons reported unemployed in Tuvalu rose from eight in the 1973 Census to 162 in the 1979 Census. Table 9.8, derived from Basic Table 24, shows that of these 162 persons unemployed in 1979, 112 (69%) were aged between 15 and 35, indicating that 'unemployment' is most prevalent among the younger sections of the labour force. Coupled with the evidence of rapid expansion of cash employment in Funafuti and Vaitupu, this tends to indicate that unemployment has emerged in Tuvalu as a result of an excess of new would-be recruits seeking positions in cash employment, rather than as the result of any laying-off of persons previously employed within the local economy.

Of the 162 reported unemployed, 126 (78%) were classed as experienced and 36 (22%) were inexperienced.

* Of the four foreigners shown in 'Agriculture and fishing', three were agricultural extension officers provided by the British Government.

These unemployment figures have to be treated with caution. They are derived from census Question S which required respondents to select only one of a set of 12 economic activities, not all of which were mutually exclusive. Enumerators reported considerable difficulty in obtaining clear responses to this question, and problems at the final coding stage were considerable (which suggests that field coding by enumerators on the spot may also have been shaky). Only 100 persons were unambiguously recorded as 'seeking work' on the census questionnaires. Another 40 persons gave two responses rather than one, with 'seeking work' as one of these.

Table 9.8 Reported Unemployed, Indigenous, by Age Group

Age Group	Funafuti		Other Islands		Total	
	M	F	M	F	M	F
a) WITH PREVIOUS EMPLOYMENT EXPERIENCE						
15-24	4	14	3	5	6	19
25-34	18	18	14	1	32	19
35-44	1	10	7	0	8	10
45-54	7	8	8	0	16	8
55+	3	2	3	0	6	2
Total	33	52	35	6	68	58
b) WITHOUT PREVIOUS EMPLOYMENT EXPERIENCE						
15-24	10	14	4	5	14	19
25-34	2	1	0	0	2	1
35-44	0	0	0	0	0	0
45-54	0	0	0	0	0	0
55+	0	0	0	0	0	0
Total	12	15	4	5	16	20

At the coding stage many of the unambiguous responses as well as many ambiguous responses were rejected as inaccurate, while a considerable number of other persons who had not reported themselves as 'seeking work' were so coded. The margin of error in the figures is therefore very wide, and the meaning of 'unemployment' as recorded by the 1979 Census is not at all clear.

In practice, the census questionnaire had a built-in bias towards recording as unemployed those persons who reported previous experience in cash employment but did not report themselves currently employed in the cash economy. The category of 'experienced unemployed' thus includes a considerable number of persons who reported themselves 'active in village life' but who also gave information on previous experience in cash employment.

On the other hand, the questionnaire tended to exclude from 'unemployed' status those persons who declared themselves to be 'seeking work' but who reported no previous employment experience.

Summing up, the figures on 'unemployment' in the 1979 Census should be interpreted more as a rough guide to the numbers and background of persons readily available for recruitment into cash employment, rather than as an indicator of economic inactivity. The majority of those reported as unemployed were almost certainly active to some extent in village productive activity, and would have been supported from the resources of their

families. The built-in bias of the questionnaire contributes to the preponderance of 'experienced' persons among the unemployed.

More detail on the previous occupations of the 126 'experienced unemployed' are provided in Basic Table 27B. Of 58 females included therein, 20 had been nurses, 12 sales workers, 7 cooks or domestic servants, and 5 typists. Of the 68 males, 51 had previously been 'production workers' (mainly construction workers, seamen and drivers) and only 10 had experience in 'professional and technical' occupations. The Census does not, therefore, indicate any large-scale open unemployment of highly-qualified Tuvaluans, despite the influx of former civil servants from Kiribati following independence.

The Village Economy

In an earlier section it was indicated that of 4,943 resident indigenous Tuvaluans aged 15 years and over, 902 were employed in the cash economy and 162 were 'unemployed' and seeking jobs in the cash economy. The remaining 3,879 were living in the village economy: 3,456 of them active in 'home duties' and village production, and 423 as dependents. The distribution of these people among the various categories identified in the Census is shown in Table 9.9.

Table 9.9 Resident Indigenous Population aged 15 and Over in the Village Sector, by Economic Category

Category	Males	Females	Total	Percentage
Active in village life	1,197	1,749	2,946	75.9
Home duties	3	507	510	13.1
Visitors	16	3	19	0.5
Retired	55	116	171	4.4
Disabled	11	12	23	0.6
Inmates	15	12	27	0.7
Students	66	100	166	4.3
Resting	15	2	17	0.4
Total	1,378	2,501	3,879	100.0

The classification of individuals, however, is not the most fruitful way of analysing the village economy, since the basic economic unit in that economy is not the individual but the household, in which all members will normally play some part in the productive activity of the collective enterprise. Thus many persons recorded as 'resting', 'retired', 'students' and so on will be intermittently active in the village economy, as will most of the 'unemployed' and those 'active in the cash economy'.

The key characteristic of Tuvaluan households, as revealed in Basic Tables 31 and 34, is non-specialisation. Participation in the cash economy by individuals, which accounts for only a minority of the adult labour force, is found in all but 61 of the 1,079 households in Tuvalu. That is to say, no fewer than 94% of households have at least one adult member in receipt of cash income from wages or own business. Only 6% of households have no resident member earning cash income, and many of these receive remitted cash from members working overseas. Thus hardly any households are confined entirely to the traditional village economy; most straddle the divide between traditional and cash economies.

A note of warning is in order concerning the figures in Basic Table 31, however. Assuming that all households are separate from each other (so that there is no double-counting of individuals in Basic Table 31), the household results indicate that a minimum of 2,794 individuals were 'in receipt of cash income from wages or their own business'. This figure should be compared with the 902 persons reported as 'employed in the cash economy' in Basic Table 23. It is clear that a great deal of the cash-earning activity reported in Basic Table 31 was of a casual nature, with only a minority of the cash-earning adults recorded there having recorded cash employment as their main activity on the individual census forms.

This integration of cash and village sectors is reinforced by the fact that households also sell part of their production from family lands and fishing for cash. Table 9.10 shows the diversity of sources of cash income for households in Tuvalu, and the very small number for which the census recorded no cash income. Because of erroneous instructions given to enumerators in the 1979 Census, the figures in Table 9.10 understate the number of households actually obtaining cash from the sale of produce. (Enumerators were instructed not to record sales of copra, the main cash crop, as 'sales of produce'; the consequent omission of a major source of cash was only partially remedied at a later stage by coding as produce-sellers all households which reported members active in copra-gathering during census week. Most of the 23 households for which no cash income was recorded probably make some sales of produce in fact.)

Table 9.10 Sources of Cash Income of Indigenous Households, by Island

Island	Number of Households Reporting Cash Income From:					Totals
	Remittances Only	Local Cash Employment only ¹	Sale of Produce only	Two or more Sources	No. Source of Cash	
Nanumea	4	0	38	95	3	140
Nanumaga	1	2	28	70	2	103
Niutao	6	2	31	89	3	131
Nui	6	5	14	61	1	87
Vaitupu	5	20	25	115	3	168
Nukufetau	10	2	15	77	3	107
Funafuti	7	159	3	107	8	284
Nukulaelae	2	1	3	44	0	50
Niulakita	0	2	4	3	0	9
Totals	41	193	161	661	23	1,079

1. Wages, pensions and earnings from business activities.

61% of Tuvaluan households in 1979 reported two or more sources of cash income. If Funafuti, with its 159 specialised wage-and-profit-earning households, is excluded, this proportion rises to 63%. Households, in other words, usually obtain cash from a variety of sources, reflecting the allocation of their members' time among village production for sale, local wage employment, and employment overseas. Only a minority of households are dependent on a single source of cash, and most of these could probably obtain access to more sources of cash if they so desired.

An important implication of the relatively unspecialised character of cash-earning activities of households is the flexibility of the village sector, which enables it to adjust to changing opportunities by reallocating the labour power available to households. Most households have the capacity to allocate members to any of the three sources of cash income as appropriate, or alternatively to absorb them into non-cash-oriented subsistence production activity. As was pointed out earlier, the ability of the non-cash economy to absorb more labour was clearly demonstrated between 1973 and 1979, when 1,392 persons were added to the resident population aged 15 years and over. Only 615 of these additions to the working-age population obtained cash employment or became 'unemployed'; the remaining 777 were absorbed into the non-cash village economy, and it is probably the case that many of the reported 'unemployed' were in fact also active in non-cash production while seeking cash employment.

The household questionnaire sought information on the participation of household members in 17 'traditional activities', and figures based upon responses to this question are in Basic Tables 32 and 33. In Table 9.11 are figures showing the percentages of households active in various traditional activities, broken down by size of household. Seven activities were undertaken by 75% or more of Tuvalu households: livestock-rearing (95%), firewood-gathering (91%), reef-fishing (81%), seafood-collecting (88%), mat-making (78%), pulaka (taro) cultivation (77%) and ocean fishing (77%). Of the seventeen activities, only house-building was undertaken by less than half of all households.

Table 9.11 Percentage of Resident Indigenous Households Engaged in Selected Traditional Activities, by Size of Household

	Size of Household						All H/holds
	1-2	3-4	5-6	7-8	9-10	11+	
No. of H/holds	88	229	285	242	122	113	1,079
Fishing:							
Ocean	47	66	79	89	87	85	77
Lagoon	60	59	68	76	68	81	69
Reef	65	73	84	83	87	87	81
Collecting	58	72	78	84	80	85	78
Lands:							
Toddy	43	59	74	82	89	85	73
Pulaka	55	76	78	82	82	73	77
Copra	50	65	68	70	70	54	65
Livestock	76	92	97	99	98	99	95
House:							
Toddy Syrup	45	60	73	82	83	81	72
Fish Smoking	34	53	58	64	64	59	57
Firewood gathering	73	90	91	95	93	95	91
Handicrafts:							
Mats	43	78	79	87	85	79	78
Blankets	31	56	55	63	59	58	56
String	32	43	47	61	61	55	51
Thatch	45	67	67	72	68	59	66
Housebuilding	20	30	25	26	27	32	27
No Traditional Activity:	5	2	0	0	0	0	1

There is, however, a clear relationship between the size of households and number of traditional activities undertaken by household members. Not

surprisingly, the smallest households display the lowest participation rate in all the activities listed, reflecting the fact that their limited labour resources force them to specialise in relatively few activities. Participation rates rise with size of household up to the 7-10 member range, and then fall off for larger households - suggesting that beyond about nine members per household, there is an increasing tendency for household members to be allocated to cash employment rather than traditional activities, giving the household an income which reduces somewhat the need for traditional activities.

Table 9.11 confirms also the point made earlier, that specialisation in the Tuvalu economy occurs within households, rather than among households. The typical household has members active over a wide range of activities. Less than one percent of households reported no participation in traditional activity; all except one of these were households of four persons or less - that is, households which would have had only one or two active adult members.

The pattern of participation in traditional activities by island is shown in Table 9.12.

Table 9.12 Percentages of Resident Indigenous Households Engaged in Selected Traditional Activities, by Island

Island	Nanu- mea	Nanu- maga	Niu- tao	Nui	Vai- tupu	Nuku- fetau	Funa- futi	Nuku- laelae	Niu- lakita	Tuvalu
Fishing:										
Ocean	79	81	70	85	71	79	77	90	67	77
Lagoon	90	46	0	87	79	84	79	90	0	69
Reef	89	95	55	95	90	84	70	90	78	81
Collecting	86	95	82	92	73	79	60	92	78	78
Lands:										
Toddy	78	83	70	87	71	79	61	90	67	73
Pulaka	90	97	90	91	91	94	36	92	0	77
Copra	94	95	92	89	82	79	0	90	78	65
Livestock	99	100	99	98	95	95	89	98	78	95
House:										
Toddy syrup	77	82	72	87	74	82	52	94	78	72
Fish salting	86	89	43	43	49	82	32	96	11	57
Firewood gathering	99	96	96	99	94	93	76	98	78	91
Handicrafts:										
Mats	95	95	84	92	91	74	48	94	78	78
Baskets	91	93	51	30	76	31	29	84	33	56
String	71	84	47	66	61	51	12	90	78	51
Thatch	95	95	75	92	91	63	9	94	78	66
Building	60	2	2	0	60	36	20	14	0	27
No Traditional Activity:	0	0	0	0	1	2	1	0	22	1

Several of the most striking differences to emerge are related directly to particular features of individual islands; thus for example Niutao and Niulakita, which have no lagoons, recorded no lagoon fishing; Niulakita, inhabited on a short-term basis by temporary copra workers from Niutao, recorded no pulaka production (pulaka takes seven years or more to mature); and Funafuti, still showing the after-effects of the 1972 hurricane, recorded no activity whatever in copra gathering. Funafuti stands out also for the fact that only about one-third of households reported members active

in the production of the staple crop, pulaka, and this island had the lowest overall rates of participation in seafood collecting, toddy production and syrup-making, fish-salting, mat-making, basket, string and thatch-making. Apart from toddy (affected, in common with copra, by the 1972 hurricane) these low figures for Funafuti provide an indicator of the replacement of traditional consumption patterns by imported ones, in matters ranging from roofing materials to staple diet.

Possibly the most striking contrast among islands is in the column for house-building. Very high levels of construction activity are shown for Nanumea and Vaitupu, in both of which 60% of households had members active in this field. Apart from Nukufetau (36%) all other islands recorded 20% or less. In Funafuti this may reflect the displacement of traditional modes of construction by the commercially-organised construction companies.

Included on the household questionnaire form was a question concerning ownership of ten selected items loosely described as 'capital goods': radios, guitars, cameras, motorcycles, bicycles, outboard motors, canoes, fishing nets, sewing machines and refrigerators. Eight of these are manufactured goods which would have to have been acquired by cash purchase of imported items. The other two (canoes and fishing nets) are locally-produced, mainly in the non-cash sector of the economy. Basic Tables 35, 36 and 37 present data based upon responses to this question.

In interpreting these figures, some caution is in order. To a certain extent, they serve as indicators of the degree to which households have had access to spare cash and have used it to invest in capital goods or consumer durables. Other major uses of discretionary cash income, such as overseas travel, education, social drinking, and consumption of imported foodstuffs, were not touched upon by the Census.

Of the ten goods, five are consumer durables rather than capital goods: radio, guitar, camera, motorcycle and refrigerator. Although there may be cases where these items perform productive functions in the local economy (such as the manufacture of ice-cream for a neighbourhood or the use of motorcycles for transport purposes), for the most part they can be regarded as straightforward incentive goods, for the purpose of acquiring which households will have to obtain cash from some source or other.

The remaining five goods are more strictly capital goods, the possession of which contributes directly to household productivity. Bicycles are capable of fulfilling a variety of transport roles in island conditions; sewing machines provide the means for easy domestic manufacture of clothing and furnishings; and the other three items relate to the capitalisation of fishing. Not all of these capital goods represent cash purchases by households; both canoes and nets may be manufactured by the household itself, or obtained by non-cash exchange.

Table 9.13 shows the overall average level of ownership of the ten goods, by island, while Table 9.14 shows the percentage of households possessing one or more of each item. It is noteworthy that of the five 'consumer durable' items, only radios are owned by a large proportion of households - 62% - while the other four are found in only between 10% and 20% of households. This suggests that a good deal of scope remains for these items to function as 'incentive goods' for which cash will be sought.

Of the five 'capital goods', in contrast, only one (power boats/outboard motors) occurs in less than 40% of households. Fishing nets are owned by 41% of households, bicycles by 46%, canoes by 58% and sewing machines by 71%. Adding in items awaiting repair would raise all of these proportions.

Expensive foreign-produced items, which include all except two of the goods listed here, are often brought back to Tuvalu by returning migrant workers. Tuvaluan households in Nauru and other overseas locations are commonly overseas extensions of households in Tuvalu, and will in many cases

be building up stocks of such goods for future transfer back to add to the possessions of the Tuvalu household. The figures for Nauru-resident Tuvaluans in Table 9.13 bear out such a pattern, with significantly higher rates of ownership of the eight foreign-made items than is recorded for households within Tuvalu.

Table 9.13 Average Levels of Ownership by Island, per Household
(Only Goods in Working Order)

Island	Nanu- mea	Nanu- maga	Niu- tao	Nui	Vai- tupu	Nuku- fetau	Funa- futi	Nuku- laelae	Niu- lakita	Nauru
Radio	0.60	0.42	0.50	0.66	0.93	0.84	1.12	1.00	0.11	1.19
Guitar	0.20	0.17	0.15	0.09	0.24	0.22	0.24	0.38	0.00	0.16
Camera	0.09	0.04	0.03	0.06	0.18	0.07	0.40	0.12	0.00	0.48
Motorbicycle	0.07	0.01	0.01	0.03	0.22	0.00	0.31	0.00	0.00	0.43
Bicycle	0.66	0.89	0.91	0.53	0.83	0.24	0.22	0.38	0.00	0.69
Power Boat	0.15	0.01	0.00	0.02	0.08	0.14	0.32	0.10	0.00	0.46
Canoe	1.24	0.80	0.89	0.95	0.65	1.05	0.47	1.92	0.00	0.25
Fishing Net	1.01	0.29	0.22	0.44	0.70	0.69	0.59	0.96	0.22	0.40
Sewing Machine	0.89	0.91	0.92	0.84	0.84	0.74	0.85	0.64	0.44	0.87
Refrigerator/ freezer	0.06	0.02	0.03	0.02	0.07	0.05	0.43	0.08	0.00	1.03

Table 9.14 Percentage of Households Owning Items in Working
Condition, 1979

Island	Nanu- mea	Nanu- maga	Niu- tao	Nui	Vai- tupu	Nuku- fetau	Funa- futi	Nuku- laelae	Niu- lakita	Tuvalu
Radio	51	39	46	56	73	61	80	72	11	62
Guitar	16	15	12	9	21	18	21	32	0	18
Camera	9	4	3	6	14	7	34	10	0	14
Motorcycle	6	1	1	3	20	0	29	0	0	12
Bicycle	54	76	76	41	64	21	21	36	0	46
Power Boat	14	1	0	2	7	14	27	10	0	12
Canoe	74	59	63	64	49	76	41	84	0	58
Fishing Net	54	25	18	33	46	41	43	54	22	41
Sewing Machine	72	72	77	77	66	63	71	54	56	71
Refrigerator/ freezer	6	6	3	2	6	5	35	8	0	13

As expected, Funafuti shows generally high rates of ownership of imported durable goods - notably radios, cameras, motorcycles and refrigerators. The fact that only one-fifth of Funafuti households owned bicycles while nearly one-third owned motorcycles points out a dramatic contrast between the transport sector in Funafuti and the other islands. Funafuti has also the highest level of mechanisation of the fishing sector, if figures on outboard motors are any indication. (The three northern islands Nanumaga, Niutao and Nui reported only three such motors altogether.) Correspondingly, Funafuti displays the lowest rate of ownership of canoes (the main item of equipment for traditional fishing in ocean or lagoon).

The very widespread ownership by Tuvaluan households of goods characteristic of the 'modern' economy once again reflects the close overlap between the cash economy and the traditional village system, and the integrated nature of household participation in both.

Some Comments on the Census Questionnaire

The sections of the 1979 Tuvalu census forms concerning economic characteristics are the right-hand side of the individual questionnaire, and the bottom half of the household card (see sample Questionnaire Forms at end of Chapter 14). In several respects the design of these questions proved unsatisfactory in practice, and before proceeding to discuss the economic data from the Basic Tables it is worth drawing attention to a few of the main difficulties which had to be overcome in preparing these tables.

The two most important difficulties were the pre-coded design of some questions, and the ambiguous or unclear wording of several. The questions on place of normal residence and economic activity were printed in pre-coded form, with enumerators required to carry out coding in the field as the questions were being answered. Unfortunately these questions had not been sufficiently clearly designed for field coding to be straight-forward. As a result, some of the information offered by respondents will have been suppressed or distorted. Of most concern here is the section on 'activity this week' (Question S) which required the enumerator to record only one out of 12 choices which were not mutually exclusive, and not all of which had clear meanings (this is particularly evident, for example, in the distinction between 'village life' and 'home duties' in the case of female respondents, and in the case of category 12 'seeking work').

The subsequent sections T - X, on occupation, industry and training, were unfortunately made subordinate to Section S, with enumerators instructed to collect information on occupation, training and experience only from those respondents reporting themselves as having been active in the cash economy during census week (categories 9 - 12 in Section S). Information on these matters is therefore incomplete, since any person who possessed experience and/or training, but who was not active in the cash economy during the week of the census, was not asked for answers to Sections T - X. As a result, the census fails to provide full data on the pool of skills and experience possessed by the population of Tuvalu, and its usefulness for manpower planning is thereby impaired.

These problems could be avoided in future censuses either by asking an open-ended question on usual occupation, employment experience and qualifications, or by using a more tightly-precoded question on 'activity this week', or both.

Turning to the household sheet, some problems of questionnaire design are again evident. Failure to distinguish between power boats and outboard motors results in a gap in the data on the capitalisation of the fishing sector. (The figures in Basic Tables 35-37 for 'power boats' are in fact numbers of outboard motors.)

In the section on 'cash input' it was possible to obtain clear information on the number of household members contributing cash from wages, own businesses, and pensions; but the information on income from sales of produce is of low quality. Production of produce for sale is a collective as much as an individual undertaking, and it was not appropriate to ask, as the census did, how many individuals were involved in this activity. This difficulty was aggravated by an erroneous instruction to enumerators to exclude information on copra sales.

CHAPTER 10

DISTRIBUTION OF LANDS

Anne and Keith Chambers

Introduction

The Tuvalu system of private land tenure distinguishes between holdings to which a single individual has the rights of occupancy and use (vaevae or divided tenure) and those to which two or more persons share these rights (kaitasi, shared or joint tenure). Official land registers kept on each island record the name of each land parcel, its approximate size and quality, its legal tenure status and its primary owner or owners. Since individual island Land Codes stipulate that owners must make adequate, customary provision for their children in terms of land inheritance, most parcels legally registered as belonging to a single person become shared land within a generation unless the owner dies without more than one natural or adopted child. Similarly, land willed to individuals usually comes to be owned by a group of descendants in time. When this group decides legally to redivide its joint estate, the parcels are registered as individually owned again and the cycle is set up to repeat itself. Most individuals have rights in a number of parcels, each relatively small in size, which tend to be scattered over the island or atoll, thus giving access to the fullest possible spectrum of resources.

The shared nature of land rights in Tuvalu, together with extensive inter-marriage between individuals from different home islands, results in complex patterns of distribution for land rights. As this chapter will describe, Tuvaluans commonly have rights to land on other islands as well as on their home island; a few also claim land rights outside Tuvalu itself.

The Census Data on Land Distribution

The data analysed here were obtained by asking each person 15 years of age or older where he or she owned (or expected to own) lands. Respondents were first asked to state whether or not land was owned on their home island, and were then asked to list the names of all other places where they claimed land rights. This information was tabulated separately for each Tuvalu island (except Niulakita), for Kiribati and for a composite category termed 'outside'. Two tables were then produced: Basic Table 21 lists the number of places where land is claimed by each Tuvalu home island population, by Kiribati citizens and by resident indigenous outsiders; Basic Table 22 enumerates the land claims for each location by the home islands of the claimants.

The information available from these sources relates specifically to land claims. There is no way of ascertaining whether a person's claim to land on another island would be recognised by his or her kin there or whether it could be realised by the individual and/or his descendants. There is also no information provided on the relative sizes of the land parcels claimed, the extent to which the claims involve divided or shared tenure, or the productivity of the land involved. Thus it is not possible to generalise from these data about the amount of land available to each home island population, the extent to which a home island group is land-poor or land-wealthy, or the demands that potentially may be made on the resources base of a given land.

Despite these limitations, the census information can be used to answer a number of significant questions. These include:

- Do all Tuvaluans claim land rights on their home islands?
- Do patterns of land claims away from home island vary greatly

for males and females?

- Are there any marked differences in the extent to which home island populations claim land elsewhere in Tuvalu?
- Where do the external land claims tend to be located for each home island population?

The remainder of this chapter will examine some answers to these questions. It will also describe some of the social, historical and demographic characteristics that are likely to have precipitated the contemporary differences that exist in land claim distribution.

Home Island Land Claims

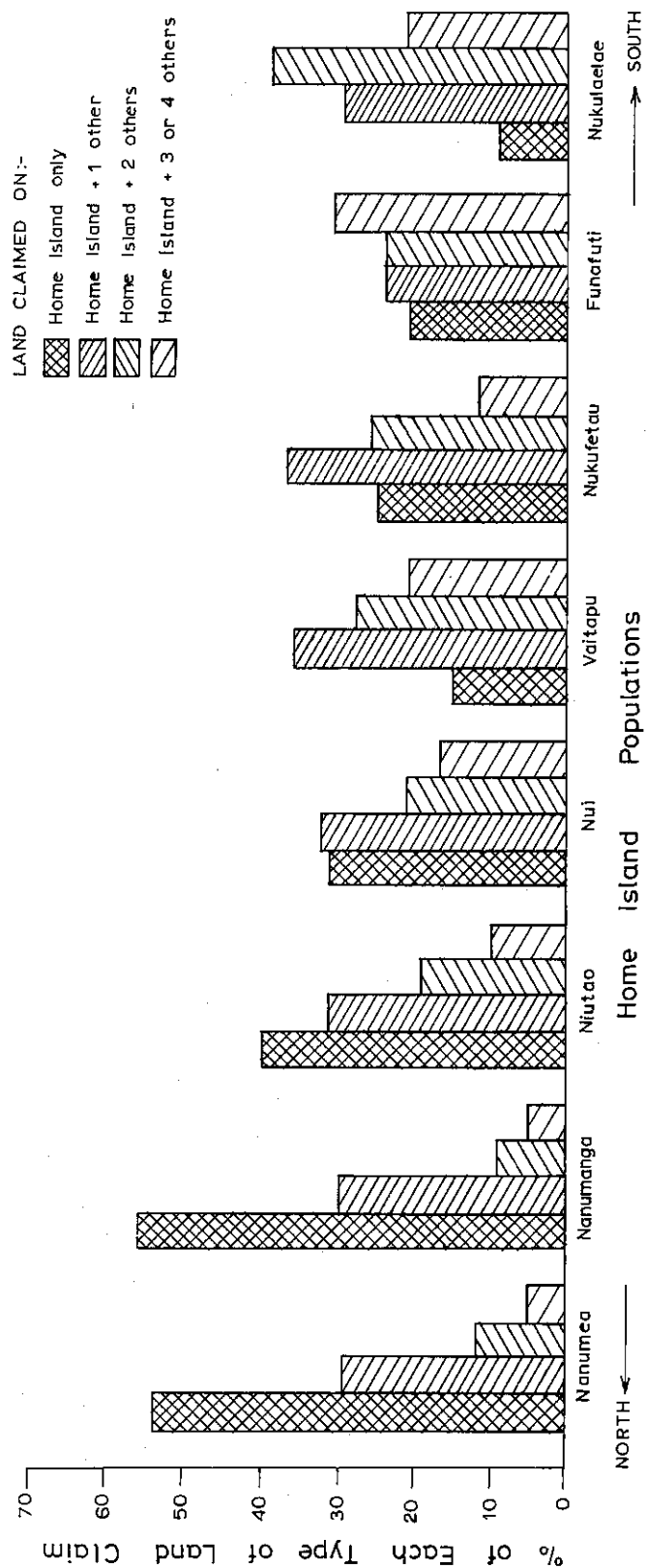
All those queried claimed land rights on their home island (see Table 10.1). These land rights are likely to be one of the most important definitive characteristics on which home island membership is based. They may also involve the claims that are the most secure and/or the parcels that are the most extensive and productive.

Table 10.1 Percentage of Each Sex of Each Home Island Population (aged 15 years and over) Claiming Land at Home and Abroad¹

Home Island	Number of Islands Where Land is Claimed:							Individuals Claiming Island as Home
	None	Home Isl. Only	Home Isl. + 1	Home Isl. + 2	Home Isl. + 3	Home Isl. + 4	Home Isl. + 5 or More	
Nanumea	M -	52	30	12	5	1	-	M 403
	F -	55	28	10	4	2	-	F 510
Nanumaga	M -	58	25	10	8	1	-	M 226
	F -	55	33	8	2	2	-	F 314
Niutao	M -	42	30	16	10	2	-	M 367
	F -	38	32	22	6	2	-	F 452
Nui	M -	30	32	19	13	7	-	M 193
	F -	33	32	22	10	3	-	F 256
Vaitupu	M -	15	38	26	16	4	-	M 292
	F -	12	34	29	18	5	-	F 401
Nukufetau	M -	25	37	26	11	1	-	M 271
	F -	24	37	26	11	2	-	F 358
Funafuti	M -	18	22	24	17	19	-	M 229
	F -	23	25	23	15	14	-	F 272
Nukulaelae	M -	11	29	35	19	5	-	M 116
	F -	7	30	42	18	5	-	F 156
Kiribati	M -	44	44	6	-	6	-	M 18
	F -	41	32	18	8	1	-	F 73
Outside	M -	68	16	16	-	-	-	M 25
	F -	70	25	-	-	5	-	F 20
Mean	M -	35	31	19	11	5	-	M 2140
Percentage	F -	34	32	21	10	4	-	F 2812

1. Figures may not equal 100% due to rounding.

Figure 10.1 North/South Differences in Tuvalu Land Claims



Patterns of Land Claims for Males and Females

No patterned variation is found in the distribution of land claims of males and females. Table 10.1 shows that the percentage of each sex claiming land only at home, as well as the figures for claims on one or more additional islands, is reasonably similar for each home island population. Within Tuvalu, male-female differences within each home community rarely exceed 5%; the highest percentage difference is 8%. In addition, there seems to be random variation between different islands on whether more males or females own land only at home or at a number of locations abroad. This probably results from the right that descendants of both sexes have to share in a parental estate. Any favouring of males probably involves the size or productivity of parcels allotted, not the fact of a land claim itself.

North/South Differences in Tuvalu Land Claims

A striking difference exists in the distribution of land claims between the northern Tuvalu islands and those in the south (see Figure 10.1). In Nanumea and Nanumaga, over half of each island's home population claims land only at home. Niutao's percentage (40%) is similarly high. By contrast, in Vaitupu and Nukulaelae this proportion is as low as 15% and 9% respectively, while in Nukufetau, Funafuti and Nui it is between 21% and 31%. Thus in the north, by and large, it is common for individuals to claim land only at home. In the south, additional land claims abroad are the rule and there are a greater number of persons who claim land on one other island than there are those who do so exclusively at home.

Several factors seem to be causally important as explanations for these differences. These include the size of various home island populations and the resulting impetus to marriage with outsiders, the land available and the density of claims to it, and variations in proximity of the different Tuvalu islands. Before discussing the impact of each of these factors, it must be stressed that none of them can adequately serve as the single explanation. Taken in combination, however, they do much to clarify these differences. Further research on this specific topic could undoubtedly illuminate the influence of these variables and might well add some additional ones.

Marriage between people from different islands usually allows their descendants to claim land on the home island of each parent. Given Tuvalu's relatively strict incest prohibitions, islands with smaller populations are thus likely to show a greater frequency of intermarriage with outsiders and of claims to land abroad. Funafuti and Nukulaelae, both decimated by slave traders in the nineteenth century, still have low populations (see Table 10.2). And on both islands, those claiming the island as home also show a high proportion of land claims abroad. Nanumea and, to a lesser extent, Niutao also conform to the pattern, with high populations and low rates of land claims abroad. Nukufetau and Vaitupu, however, have high rates of outside land claims and moderately large populations and here other explanations must be sought. Similarly, other variables are probably more important for Nui and Nanumaga, islands with low populations but having high and medium levels respectively of exclusive home island claims. A diachronic perspective is clearly needed, since land claims are built up over several generations. Unfortunately, this is not available, since this is the first Tuvalu census to include questions on these topics.

A second determining factor seems likely to be the land area available and the density of claims to it. It seems reasonable to expect that a greater density of claims on an island (i.e. 'land hunger', in a general sense) will increase the tendency for the island's home population to attempt to broaden its potential resource base by increasing its land claims elsewhere. Table 10.2 provides two sets of relevant figures: the

number of claimants per acre (column 6) and the percent of all land claims made by non-home islanders (column 11). Without diachronic data it is impossible to understand how the contemporary situation developed or to know whether current patterns are relatively new or are stable over the recent past. The exceptionally high density of claimants per acre of Niutao does not correlate with a markedly high level of land claims on other islands, though Niutao's rate is higher for this than those of the other northern islands. It may be that Niutao's large population has reduced the need for marriage to outsiders and thus the community has not developed a substantial basis for land claims abroad. In any case, the figures for the other islands do not show any neat correlation in regard to density of land claims either. However, this lack of correspondence may result from a too-narrow and too land-oriented method of calculating the resource base rather than an incorrect hypothesis. Clearly, attitudes to outside land claims have much to do with islanders' perceptions of the adequacy of their resources and it is likely that marine resources, access to cash and cultural assets all are taken into account as well as land acreage.

Table 10.2 Number and Type of Land Claims on Islands in and Outside Tuvalu

Island	Area (Acres)	People over 15 claiming land on each island			Claimants per acre	People over 15 claiming island as home island			No. of claims by non-home islanders	Non-home islanders' claims as percent of total
		M	F	T		M	F	T		
Nanumea	956	683	829	1512	1.58	403	510	913	599	39.6%
Nanumaga	687	461	608	1069	1.55	226	314	540	529	49.5%
Niutao	625	786	997	1783	2.85	367	452	819	964	54.1%
Nui	699	541	693	1234	1.76	193	256	449	785	63.6%
Vaitupu	1385	818	1018	1836	1.33	292	401	693	1143	62.3%
Nukufetau	738	513	659	1172	1.59	271	358	629	543	46.3%
Funafuti	689	429	557	986	1.43	229	272	501	485	49.2%
Nukulaelae	449	210	286	496	1.10	116	156	272	224	45.2%
Kiribati	-	148	292	440	-	18	73	91	349	-
Outside	-	115	147	262	-	25	20	45	217	-

Finally, geographic proximity would seem to be important in patterning land claims. Persons living on islands near the centre of the Tuvalu chain are likely to be in closer contact with those in other communities, having a greater chance to become familiar with marriageable outsiders, to form adoptive bonds, to maintain close relationships with family members on other islands, and also actively to maintain their claims to non-home island land directly or indirectly. Figures in Table 10.2 bear out this hypothesis (column 11). Regardless of other factors, the proportion of land claims by outsiders is markedly higher in the central islands (Nui, Vaitupu and to a lesser extent Niutao) while the two most remote islands (Nanumea and Nukulaelae) have the lowest proportion. Data in Basic Table 22 also show a similar geographic bias in regard to the clustering of islander land claims on adjacent or nearby islands. For example:

Nanumagans tend most often to claim land on Nanumea and Niutao.

Nuians tend most often to claim land on Vaitupu and Niutao.

Vaitupians tend most often to claim land on Nukufetau and Funafuti.

Nukulaelae people tend most often to claim land on Funafuti and Nukufetau.

Nanumean and Niutaoan claim patterns (favouring Niutao and Funafuti, and Vaitupu and Nanumea respectively) are exceptions that may best be explained by patterns of alliance dating to the nineteenth century or before.

Comment on Census Questions

As described above, the data analysed here were derived from two relatively straightforward questions (cf. Individual Sheet Questions O and P) asked of adult respondents about where they claimed land rights. These two questions seem to have been useful in providing comprehensive information on a fundamental aspect of Tuvalu society: the interlocking nature of land claims within Tuvalu. To our knowledge, this has not yet been investigated by either the administration or academic researchers. Though the potential usefulness and practical application of these data is limited by the fact that they relate only to claims, clear regional and inter-island differences do show up and this evidence of variation within Tuvalu is valuable. Whether these differences represent firm trends that will persist over time is an interesting question that can only be answered if the two queries are repeated in future censuses. Although further information on the ability of respondents to realise their claims, as well as on the actual frequency with which they do so, would of course be desirable, the census would not seem to provide the proper context for seeking this information. Thus we recommend that Questions O and P be retained in their present form in at least the next census.

Conclusion

In so far as land claims are based on the most important Tuvalu social relationships (shared kinship and descent), the interlocking nature of the nation's land claims can be appreciated as one of the forces strengthening national unity. Though there is close personal identification and loyalty between an individual and his or her home island community, the existence of land claims in other places (and thus corresponding social relationships there) can serve as a moderating influence against excessive insularity.

CHAPTER 11

HOUSEHOLD COMPOSITION

Anne and Keith Chambers

Introduction

Nuclear family relationships, those between persons related as parents and children, are important in household composition in Tuvalu. However, in keeping with the cultural emphasis on extended kinship ties, private households often contain more than a single family unit. These extended family households sometimes include grandparents or other elderly kin, since the traditional obligation to care for these people is taken seriously. They may also include several other related individuals or clusters of relatives. Complex household arrangements are particularly common (and necessary) when an economically important family member, such as the husband/father, is absent overseas. While most persons associate themselves as primary members of one particular household, they may reside elsewhere from time to time in response to life crisis celebrations, work projects, household tensions or personal needs for variety. Movement of personnel among Tuvalu households is one of the basic features of island life.

The Census Data on Household Composition

In the course of the census, all occupied households in Tuvalu were enumerated and their memberships were ascertained, with the total number of members being tallied on the household sheet (bottom right). Households were distinguished as 'private' or 'collective' on the basis of the relationships among their members, private households being characterized by personal relationships and collective households (school dormitories, hospital wards, the hotel and jail) by institutional ones. The information on the family units within private households was obtained by asking the relationship of each individual to the head of the household in which he or she resided (Question C on the individual sheet). The number of family units within each household was later computed by the enumerator. The procedure used was apparently identical to that described in the 1968 Census, where the youngest family unit consisting of parents and children in the household was taken as the starting point. Additional family units were then identified and the total number of these was entered on the household schedule (bottom right). The data were tabulated to provide information on the number of private and collective households on each island, the number of members they included, and the number of family units they contained.

These procedures are relatively straightforward and are essentially identical with those used in previous censuses in Tuvalu. They thus seem capable of providing basic information comparable with that obtained in the past. Nonetheless, there are several methodological problems which could make this information difficult or impossible to interpret in any meaningful manner, especially when diachronic comparisons are involved. The most serious problem area concerns the use of the category 'family unit', which has no standard meaning or fixed social relevance. It can refer to a single individual or to an entire nuclear family, depending on the context. Other problems of interpretation stem from some characteristics of Tuvalu culture: the use of a generational kinship terminology (explained below) and the practice of fostering children without going through official adoption formalities.

The ostensible goal behind assessing household composition in terms of the number of family units households contained would seem to be to ascertain whether people live in nuclear or extended family contexts. One

assumption implicit in the single- versus multiple-family unit distinction is that multiple-family unit households show evidence of greater extended family cohesion, since people live intimately and pool resources with kin outside their own nuclear families. Another assumption is that data about the prevalence of single- or multiple-family unit residence indicates something definitive about social relationships in Tuvalu. Unfortunately, because the term 'family unit' is not applied in a standard manner to a fixed group of people characterized by similar relationships, but is instead defined by context, it is impossible to draw any practical, socially relevant conclusions from the data available. The category of single-family unit households, for example, includes large nuclear families, a single parent and child, as well as individuals who live alone. There is an even greater range of variation possible in the relationships involved in multiple-family unit households.

The generational kinship terminology of Tuvalu applies many of the same terms to persons related in a collateral way (for example, as cousin, uncle) as to those in lineal relationships. For example, one's own children and those of one's siblings are all termed tama (child); one's own parents and their siblings as maatua (mother), tamana (father) or maatua (parents); one's grandparents and their siblings tupuna (grandparent). Individuals can of course distinguish lexically between these relatives if asked to do so, specifying the exact relationship (such as taina o toku tamana, 'brother of my father'), but in daily practice, general kin terms based on generational relationships are sufficient. Since the distinction between lineal kin relationships and collateral ones is used in assessing the family unit structure of Tuvalu households, this point is crucial to the interpretation of the results, particularly to the analysis of change in household composition over time. If the family unit composition of households has been found to differ between the 1973 and 1979 censuses, for example, this could imply either that real social change has occurred or simply that there have been changes over time in the way that data has been collected or processed. This problem is not unique to the Tuvalu census, of course, but its potential effects should be borne in mind by anyone making use of the household composition information.

Classification of intra-household relationships involving fostered children are problematic for similar reasons. Children may live with adults other than their parents for a variety of reasons, often without formal adoption or the intent to proceed with adoption in the future. Usually there is a close kin tie binding the child to some adult member of the household, though this tie may not be with the household head. The interpretive problems potentially caused by differences in classifying fostered children are clearly of less importance than those stemming from the use of generational kin terms and the issue is raised here mainly to illustrate that the classification of intra-household relationships for census purposes is not the straightforward matter it is often assumed to be.

Distribution of Collective and Private Households in Tuvalu, 1963-1979

Table 11.1 lists the number of each type of household on all Tuvalu islands for the 16-year period, 1963-1979. In the last decade, there has been an increase both in the gross numbers of households in Tuvalu and in the relative numbers of collective households (from 0.4% of the total in 1968 to 1.2% of the total in 1979*). The increase in collective house-

* The 1973 figures for collective households on Nanumea, Niutao, Nui and Nukufetau are of questionable accuracy, almost certainly having resulted from the mis-classification of functionally private households in the hospital compound as single collective households.

holds can be seen as stemming from the growth of educational and medical institutions on Funafuti and Vaitupu.

Table 11.1 Private (P) and Collective (C) Households in Tuvalu
1963-1979

Island	1963 ¹			1968			1973			1979		
	No. Households P	C	T	No. Households P	C	T	No. Households P	C	T	No. Households P	C	T
Nanumea	*	*	135	143	-	143	146	1	147	140	-	140
Nanumaga	*	*	86	80	-	80	96	-	96	103	-	103
Niutao	*	*	111	109	-	109	122	1	123	131	-	131
Nui	*	*	72	79	-	79	85	1	86	87	-	87
Vaitupu	*	*	105	117	2	119	128	5	133	175	8	183
Nukufetau	*	*	86	99	-	99	96	1	97	107	-	107
Funafuti	*	*	100	115	1	116	138	2	140	301	5	306
Nukulaelae	*	*	48	51	-	51	47	-	47	50	-	50
Niulakita	*	*	8	9	-	9	10	-	10	9	-	9
Total	*	*	751	802	3	805	868	11	879	1103	13	1116

1. Separate numbers for private and collective households were not available.

Size of Private Households

Average size of indigenous private households in Tuvalu as a whole is 6.4 persons, but only on Niutao does the island mean closely approximate this figure. Households on Nanumea, Nanumaga, Vaitupu and Nukufetau are smaller on average (with about 6 persons each) while on Funafuti, Nukulaelae and Nui they are larger (with about 7 persons each). By and large, islands with smaller than average mean household sizes tend to have more of the smallest households (those with 1 to 4 persons) and, with the exception of Nanumea, fewer of the largest (those numbering 12 or more persons) than is the average for the nation (see Table 11.2).

The factors that determine household size are complex and tend to be idiosyncratic. Personal preferences, demographic differences between families, the numbers of people temporarily absent overseas and housing availability are clearly all relevant. Thus it is not possible to explain the variation in household size that exists within Tuvalu using the data at hand. However, Funafuti's socio-economic attractions (its 'bright lights', employment opportunities and government services), coupled with the difficulty of obtaining housing there, could logically have been expected to result in that island having the most people per household on average in the group, as in fact it does.

Family Unit Composition of Households

Table 11.3 outlines the frequency with which indigenous private households in eight Tuvalu communities (data from Niulakita was not tabulated) were composed of a single family unit or of several family units in 1979. It also shows the percentage of each community's population included in each family unit category. Only indigenous households are included, in order to make the data comparable among all islands.

Table 11.2

Size of Indigenous Private Households¹

Island	Percentage of Island Population Living in Private Indigenous Households Numbering:				Number of Residents in Private Indigenous Households ²	Mean Household Size (persons)
	1-4 Persons	5-7 Persons	8-11 Persons	12 or more Persons		
Nanumea	18	31	34	16	844	6.0
Nanumaga	16	47	31	6	605	5.9
Niutao	12	40	33	15	866	6.6
Nui	11	25	52	11	603	6.9
Vaitupu	17	39	35	9	993	5.9
Nukufetau	15	39	39	6	626	5.9
Funafuti	11	29	36	24	2000	7.0
Nukulaelae	10	31	47	12	347	6.9
All Tuvalu ³	14	35	37	15	6884	6.4

1. Column totals may not equal 100% due to rounding.

2. Non-indigenous persons in indigenous households included: Nanumaga 1, Nui 2, Funafuti 4.

3. Except Niulakita.

Table 11.3 The Composition of Indigenous Private Households, 1979.

Island	Private Indigenous Households with Family Units Numbering:								All Priv. Indigenous H/holds		Total No. of H/holds	Total No. of Persons
	ONE		TWO		THREE		FOUR					
	% of HH	% of pop.	% of HH	% of pop.	% of HH	% of pop.	% of HH	% of pop.	% of HH	% of pop.		
Nanumea	41	23	34	36	19	32	5	10	100	100	140	844
Nanumaga	45	38	43	45	9	11	4	7	100	100	103	605
Niutao	36	26	34	35	24	31	6	8	100	100	131	866
Nui	36	20	38	42	21	28	6	10	100	100	87	603
Vaitupu	40 ¹	23	33	28	16	19	6	9	95	79	168	993
Nukufetau	50	38	42	51	6	8	3	3	100	100	107	626
Funafuti	60 ²	46	29 ³	33	7	11	3	7	98	97	284	2000
Nukulaelae	44	33	38	42	14	16	4	9	100	100	50	347
Niulakita	56	51	33	32	11	18	-	-	100	100	9	65
All Tuvalu	46	33	35	36	14	19	4	8	99	95	1079	6949

1. Island population also includes 7 non-indigenous households of 17 non-indigenous persons.

2. Island population also includes 15 non-indigenous households of 37 non-indigenous persons.

3. Island population also includes 2 non-indigenous households of 6 non-indigenous persons.

An additional 18 non-indigenous persons were enumerated: 11 in the hotel in Funafuti and 7 in indigenous households on islands as follows: Nanumaga 1, Nui 2, Funafuti 4.

Excluding those on Funafuti for the moment, between 36% and 50% of all indigenous Tuvalu households include only a single family unit. Niutao, Nui, Nanumea and Vaitupu show a greater frequency of multiple family unit households than do the other islands. The lack of standardisation in the numbers of people housed in households of the varying family unit-types on different islands warns against using these figures to make further inferences about practical living conditions in the various communities.

In the 16-year period encompassed by Tuvalu's last four censuses, it would appear that there has been a decline in households composed of a single family unit (see Table 11.4). There also seems to have been a commensurate increase in the frequency of households composed of two or more family units. This is generally true of all nine communities*. These trends have neither been uni-directional nor fully consistent between islands over this period. In view of the methodological and interpretive uncertainties discussed above, it is not worthwhile to speculate further about the possible social implications of these figures.

Table 11.4 Changes in the Composition of Indigenous Private Households, 1963-1979¹

Island	Percentage of Indigenous Private Households Having Family Units Numbering:											
	ONE				TWO				THREE OR MORE			
	1963	1968	1973	1979	1963	1968	1973	1979	1963	1968	1973	1979
Nanumea	64	73	74	41	24	22	21	34	12	5	4	24
Nanumaga	64	59	59	45	27	24	31	43	8	17	9	13
Niutao	51	65	54	36	39	29	37	34	10	7	9	30
Nui	68	70	58	36	26	24	34	38	11	7	8	27
Vaitupu	58	60	64	43	26	29	30	35	16	11	5	24
Nukufetau	64	79	85	50	32	19	14	42	4	2	1	9
Funafuti	72	84	75	61	21	15	22	29	7	11	3	10
Nukulaelae	65	72	36	44	27	22	55	38	8	6	9	18
Niulakita	88	100	70	56	13	-	30	33	-	-	-	11
Mean - All Tuvalu ²	71	75	66	47	22	20	28	35	7	5	6	18

1. Figures rounded to nearest percent. Also note that slight differences in the data base do exist for different census years. In 1963 and 1968, data is for private households headed by a Polynesian, thus omitting a few indigenous households on each island (cf. Tables 14). In 1973, tabulations were made for all private households without regard to ethnicity. In 1979, tabulations separated indigenous from non-indigenous households.
2. In 1963 and 1968, the mean figure includes Polynesian-headed households on Banaba and Tarawa as well as in Tuvalu. In 1973 and 1979, it is for Tuvalu only.

* Households with two family units in Niutao show a slight decrease but this is fully compensated for by the rise in three-or-more family unit households on that island.

Some Factors Likely to be Involved in Changes in Household Composition

Household composition is a basic facet of socio-economic life, intimately responsive to changes in population size, fertility, overseas employment opportunities, home island residence patterns, cultural values and many other factors. In so far as the necessary detailed analysis of the primary data on individuals' relationships to their household heads for all the census years involved is impossible, it is also not possible accurately to pinpoint the reasons for the apparent changes recorded. The complexity of the issues involved is highlighted, however, by a comparison* of Tables 11.4 and 11.5, which show that while the frequency of multiple family unit households has increased since 1963, the households themselves tend to house fewer people each. Smaller household size is partially due to a decrease in fertility, a change that results in fewer children per parent. The logical expectation that the more complexly structured households (i.e. more often involving greater number of family units) would be the more populous households is not found.

Table 11.5 Number of Private Households and Their Size
by Island and Census Year

Island	1963		1968		1973			1979		
	Mean	No. HH	Per-sons	Mean	No. HH	Per-sons	Mean	No. HH	Per-sons	Mean
Nanumea	7.2	143	1076	7.5	146	930	6.4	140	844	6.0
Nanumaga	6.4	80	585	7.3	96	587	6.1	103	605	5.9
Niutao	7.2	109	796	7.3	122	891	7.3	131	866	6.6
Nui	7.0	79	569	7.2	85	544	6.4	87	603	6.9
Vaitupu	7.3	117	826	7.1	128	867	6.8	175 ¹	1010 ¹	5.8
Nukufetau	7.7	99	646	6.5	96	618	6.4	107	626	5.9
Funafuti	6.8	115	787	6.8	138	850	6.2	301 ¹	2043 ¹	6.8
Nukulaelae	6.6	51	354	6.9	47	343	7.3	50	347	6.9
Niulakita	5.3	9	54	6.0	10	65	6.5	9	65	7.2
Tuvalu Total	-	802	5693	7.1	868	5695	6.5	1103	7009	6.4

1. Figures for Vaitupu and Funafuti differ slightly from those presented in Table 11.2 because the tabulations here include all private households, not just the indigenous ones.

Comment on Census Questions

Collecting data on the numbers of persons residing in island households, their private or collective natures, the numbers of households within each island community and the relationships among household members is clearly a standard part of censuses, provides useful basic information, and

* In making this comparison, it should be borne in mind that Table 11.4 includes only the indigenous population while Table 11.5 is necessarily based on Tuvalu-wide figures, with no account taken of ethnicity. Fully comparable data were unfortunately not available.

should be continued in the future. This should be done by continuing to distinguish between private and collective households on the household sheet (top right) and also by totalling there the number of household residents (bottom right). Information on the social relationships among household members can best be obtained as at present by asking individuals to state their relationship to the head of the household (Question C on Individual Sheet) since this is the accepted focus for assessing intra-household relationships. In view of Tuvalu's generational kinship terminology, enumerators should be given uniform and careful instructions on the precision with which these relationships need to be stated for census purposes (cf. discussion above on generational kin terms and fosterage). The precision required must derive from prior consideration of the type of data required from the census and the important dimensions of Tuvalu social relationships. The instructions to enumerators should be published so that they are available to anyone wishing to analyse the data. This precaution will help to ensure that comparisons of household composition through time are being made accurately, on truly comparable data.

For reasons detailed above, continuing to tabulate the number of family units in Tuvalu households seems inadvisable. Nonetheless, information on the social composition of island households is clearly vital. We would suggest that data derived from asking individuals their relationship to their household head be tabulated to provide information on the structural types of nuclear and extended family households, since these are socially relevant types of variation and can be analysed meaningfully. To do this, working definitions of nuclear and extended family households would have to be devised (and later published). The significant patterns of variation within each type of household can then be selected (as in Chambers, 1975, p.11, for example). The use of such a system allows nuclear family households composed of parents and children to be distinguished from those including a solo parent and child(ren) and from those consisting of a single individual. Similarly, extended family households with three or four generations could be distinguished from those structured by sibling relationships (for example, two brothers, their respective wives and children) and from those including a nuclear family plus various assortments of additional relatives. These distinctions can provide useful information about the social structure of Tuvalu households and, with diachronic comparison, about changes in social relationships through time. Assessing and tabulating household composition in this manner should probably be done by the census coordinator or an outside consultant, rather than by the enumerator.

CHAPTER 12

CHARACTERISTICS OF DWELLINGS

Anne and Keith Chambers

Introduction

This chapter analyses information drawn from Basic Tables 40, 41 and 42, all of which are concerned with various aspects of the characteristics of Tuvalu dwellings. This is the first time that extensive data on this topic have been collected in Tuvalu. A comprehensive range of house attributes was surveyed, including their design, the basis on which they were occupied, the number of their inhabitants, the living area available to their residents and the sanitation, water, cooking and lighting services available in them. The results are discussed below under four separate headings.

Residential Density

Table 12.1 presents comparative information on the average areas of living/sleeping floor space available per adult in private indigenous households on eight Tuvalu islands*. The majority of the Tuvalu population, in the outer islands as well as in Funafuti, is shown to live in relatively uncrowded conditions, with more than 60 sq. ft. of living/sleeping space per adult. The most crowded conditions exist on Niutao (where 14% of adults have less than 40 sq. ft. available to them) and on Funafuti (where 11% are in this condition). It is noteworthy, however, that only on Niutao is there a consistent trend to denser living conditions and even here considerable numbers of people live in relatively spacious circumstances. At the other extreme, Nukufetau and Nui stand out as having a very small proportion of their adult population living in less than 60 sq. ft. each. Houses of non-traditional design do not tend to correlate with any particular residential density per adult.

Occupancy Status of Private Households in Tuvalu

The majority of private houses in Tuvalu are owned by their occupants. Most houses are located on land belonging to the house owners, while some have been built on land belonging to someone outside the households. Houses may also be 'borrowed' (defined as belonging to a non-occupant but used without payment) or rented. Census enumerators used these four categories of 'occupancy status' to define the basis on which houses were occupied.

As can be seen in Table 12.2, there is extensive variation between islands in regard to the occupancy status of houses. Nukulaelae and Niutao stand out as communities in which particularly high proportions of houses (78% and 71% respectively) are sited on land owned by a household member. This same tendency is also seen on Nukufetau, though it is less marked there. By contrast, on Nanumaga and, to a lesser extent, on Nui the majority of houses are occupier-owned but constructed on someone else's

* Data from Niulakita were inaccurate and thus were not tabulated. With this exception, the figures are considered to be relatively accurate. Census supervisors on each island used a measuring tape and recorded the dimensions of houses to the nearest half foot.

land. Approximately equal numbers of occupier-owned Nanumean and Vaitupuan households are located on own and others' land. Residence in a borrowed house is the norm on Niulakita and is also more common in Vaitupu and Funafuti than it is in the other outer islands. Funafuti is the only island where large numbers of houses are rented by their occupants.

Table 12.1 Living/Sleeping Floor Space per Adult in Private Indigenous Traditional Design (TD) and Non-Traditional Design (NTD) Households

Island	Percentage of Island Population with Living/Sleeping Floor Space per Adult of:												No. of Indig. Persons ³
	<40 sq. ft.			40-59 sq. ft.			60-99 sq. ft.			100+ sq. ft.			
	TD	NTD	T	TD	NTD	T	TD	NTD	T	TD	NTD	T	
Nanumea	2	2	4	29	1	30	38	1	39	25	3	28	844
Nanumaga	4	-	4	21	1	22	49	1	50	22	2	24	604
Niutao	14	-	14	24	-	24	37	1	38	25	-	25	866
Nui	-	-	-	4	5	9	41	11	52	34	5	39	601
Vaitupu	5	-	5	11	2	13	20	11	31	27	24	51	993
Nukufetau	-	-	-	2	-	2	45	3	48	46	4	50	626
Funafuti	2	9	11	2	16	18	1	33	34	1	37	38	1996
Nukulaelae	7	-	7	17	-	17	35	8	43	20	12	32	347
Tuvalu Mean ²	4	3	7	12	6	18	26	13	39	20	16	36	6877

1. Columns may not equal 100% due to rounding.

2. Niulakita is excluded.

3. 7 non-indigenous persons in indigenous households are excluded (Nanumaga 1; Nui 2; Funafuti 4).

Table 12.2 Occupancy of Private Houses of Indigenous People¹

Island	Percentage of Private Houses (Indigenous) Where:				Number of Private Households (Indigenous)
	Own House is on Own Land	Own House is on Other's Land	House is Borrowed	House is Rented	
Nanumea	50	44	4	1	140
Nanumaga	11	84	2	3	103
Niutao	71	24	2	3	131
Nui	32	59	1	8	87
Vaitupu	44	40	12	4	168
Nukufetau	56	39	1	4	107
Funafuti	39	15	11	34	284
Nukulaelae	78	10	6	6	50
Niulakita	-	-	78	22	9
Tuvalu Mean	45	36	7	12	1079

1. Totals may not equal 100% due to rounding.

These differences seem to stem from the particular social histories of each island community. Mission-inspired layout of villages in the nineteenth and early twentieth centuries was based on the division of communities into two or more geographical groupings, with the symmetrical location of these in relation to the church buildings, and involved the construction of individual houses in parallel rows to a standard pattern. In these new 'planned' villages assignment to living sites did not always coincide with traditional land ownership patterns, so that a substantial part of the population lived on land which was owned by another person or group. There has been a tendency back to residence on owned land within some villages over the years and this has probably resulted in the marked differences seen between islands: where the 'planned' village layouts remain most intact (and particularly where these involved residence on non-owned land), the greatest discrepancy between house and land ownership is found. The development of Funafuti as the capital of the group and the widespread house rebuilding programme instituted after the devastation of the island by Hurricane Bebe in 1972 are probably responsible for the higher frequency of rented houses there. The opportunity to relocate during this building period in Funafuti probably explains the infrequency with which owner-occupied houses are located on someone else's land there. Most houses on Niulakita, populated on a rotating basis by Nuitao people, predictably are borrowed.

Distribution of Traditional and Non-Traditional House Designs

The islands of Tuvalu can be divided into three groups on the basis of the frequency with which traditional house designs predominate in each community (see Table 12.3). In the northern islands, Nanumea, Nanumaga and Niutao, as well as in Nukufetau, villages are overwhelmingly composed of 'traditional styles' houses, defined as those built so that air can pass freely through them rather than with the solid walls that characterise the non-traditional category of house design. Most of these traditional houses have coral pebble floors and thatched roofs, with sides made either of adjustable, woven screens (pola) or coconut midribs (lafo). Traditional styled houses on these four islands comprise from 94% to 99% of all houses. In a second cluster, consisting of Nukulaelae, Niulakita and Nui, between 76% and 80% of the houses are of a traditional style. Finally there are Vaitupu and Funafuti, with only 62% and 7% respectively of their houses styled traditionally. The reasons for the greater prevalence of non-traditional style houses on Nui is unknown to the authors. On Vaitupu and Funafuti, however, governmental housing schemes have clearly been responsible for the larger numbers of non-traditional houses there.

Table 12.3 Distribution of Traditional and Non-Traditional House Design in Tuvalu

Island	Percentage of Households (private indigenous) on each island		
	Traditional	Non-Traditional	Total Number
Nanumea	94	6	140
Nanumaga	96	4	103
Niutao	99	1	131
Nui	80	20	87
Vaitupu	62	38	168
Nukufetau	94	6	107
Funafuti	7	93	284
Nukulaelae	76	24	50
Niulakita	78	22	9
Total	65	35	1079

As Table 12.4 shows, in Tuvalu there is no firm correlation between the style of a house and the ownership of the land on which the house is sited or ownership only of the house itself. On all islands some non-traditional houses are located on land owned by someone else. Although in most islands people do seem to prefer to site these houses on land that they also own themselves, this tendency is reversed on Nui. On Nukufetau and Vaitupu the frequency with which non-traditional houses are located on self- and other-owned land is identical. The style of 'borrowed' houses is highly variable, although in both Funafuti and Vaitupu these tend to be of a non-traditional design and may be occupied mainly by government employees. Rented houses in outer islands generally are of traditional design. In Funafuti, the opposite prevails, with most rented houses being non-traditional in style. The census data also indicate that while metal is very seldom used to roof traditional-style houses, thatch is a fairly common roofing material for houses built in a non-traditional design.

Table 12.4 Relationship Between House Design and Ownership Status¹

Island	Ownership Status: as Percentage of Households (private indigenous) on Each Island																Total No. of House- holds
	Own House on Own Land				Own House on Other's Land				House Borrowed				House Rented				
	Trad.		Non- Trad.		Trad.		Non- Trad.		Trad.		Non- Trad.		Trad.		Non- Trad.		
	T ²	M ²	T	M	T	M	T	M	T	M	T	M	T	M	T	M	
Nanumea	48	0	0	2	44	0	0	*	2	0	2	2	2	0	0	0	140
Nanumaga	9	0	0	2	83	0	1	0	2	0	0	0	2	0	0	1	103
Niutao	70	0	1	0	24	0	0	0	2	0	0	0	3	0	0	0	131
Nui	29	0	2	1	48	0	10	0	0	0	1	0	3	0	2	2	87
Vaitupu	30	*	4	10	26	0	12	2	3	*	5	3	2	0	0	2	168
Nukufetau	54	0	1	1	37	0	1	1	0	0	0	1	3	0	0	1	107
Funafuti	2	1	2	34	1	1	0	13	1	1	*	10	0	0	0	34	284
Nukulaelae	58	0	14	6	10	0	0	0	4	0	0	2	4	0	0	2	50
Niulakita	0	0	0	0	0	0	0	0	78	0	0	0	0	0	0	2	9
Tuvalu - wide mean	31	*	2	12	29	*	3	4	2	*	1	3	2	0	*	10	1079

1. Totals may not equal 100% due to rounding

2. Roof: T = Thatch M = Metal

* less than 1%

Services Available to Private Houses

Basic Table 42 (not abstracted here) correlates the services that are available to private indigenous households on the various Tuvalu islands with their occupancy status: whether the houses are owner-occupied, borrowed or rented. It is apparent that occupancy status has little relationship to the services available. Important variation in services does show up when the various island communities are contrasted, however, and can be partially related to ecological, economic and cultural differences between the islands. Another source of variation is that dependent on differential services to outer island and capital island residents, and to government employees of different grades of employment. Information is analysed here for four types of services: sanitation, drinking water, cooking and lighting.

Sanitation

Nearly half of Tuvalu's households report having no access to any sanitary facilities, whether a flush toilet, water-seal toilet or reef latrine. However, island communities differ considerably in terms of the type and availability of their sanitary facilities and only on Niutao does virtually the whole population lack some type of toilet facility. (It should also be noted that about two-thirds of Vaitupu, Nukufetau and Nukulaelae households show a similar deficiency.) Nanumea stands out as the only Tuvalu island relying mainly on reef latrines (93% of all private households there have access to one) though use of them is also fairly common on Nui (47%). Water seal toilets are found on all islands except Niulakita, but their use is dominant only on Nanumaga (where 87% of households have access to one), though about a third of households on Nukufetau, Funafuti and Nukulaelae also use them. Due to the possibility of contamination of the ground water supply with sewage it is fortunate that most of the islands reporting heavy use of water seal toilets also report that wells do not provide the source of drinking water. The exception to this pattern is Nukufetau, which depends both on water-seal toilets and on wells for drinking water. Flush toilets are common only in Funafuti (and are most frequent there in rented houses), though a few exist on Nanumea and Vaitupu and there is one each on Nukufetau and Nukulaelae.

Drinking Water

The sources of drinking water available in Tuvalu include private rainwater storage tanks, deliveries by tanker truck, running water from a household tap (confusingly termed 'cistern' in Basic Table 42), communal cisterns and wells. On all outer islands the most important source of drinking water is communal cisterns from which household members carry water home by the bucket. These cisterns depend on run-off from large public buildings with metal roofs (such as churches, meeting halls, and schools) and are usually centrally located within each village. Water allocations are controlled, with cisterns open regularly for limited periods of time. Many outer island households rely on other sources of drinking water as well. In the northern islands of Nanumea, Niutao, Nui and Vaitupu (though interestingly not on Nanumaga, according to census data) wells are in common use. This is not the practice in the far south, perhaps because of greater and more dependable rainfall there. A small number of households on all islands have running water within the household. Presumably these are mainly pastors' and senior public employees' houses. More modest types of private rainwater storage, probably 44 gallon drums or other small water tanks, predominate on Nanumea and Nanumaga (where slightly more than a third of houses have access to them) and on Funafuti (where the frequency is double that). Periodic shortages of rainfall, common in the northern islands, probably increase the need for these supplementary sources of drinking water. Predictably, deliveries of drinking water by tanker truck occur only in Funafuti, where 38% of houses are thus serviced when necessary because of lack of rainfall.

Cooking

Nearly all Tuvalu households appear to use firewood for cooking fuel. One hundred percent frequency is found on all outer islands except Nukulaelae but this drops to 94% for the group as a whole, presumably because of the inclusion of government houses on Funafuti and Vaitupu. (Even on Funafuti, 80% of private indigenous households have access to firewood.) The use of electricity and gas for cooking is negligible (only 1% of all households) and is only available in Funafuti (electricity and gas) and Vaitupu (gas). On the outer islands, households supplement their firewood by using 'oil stoves' (actually gravity feed kerosene stoves)

and primuses (pump-pressurized kerosene stoves). Overall, oil stoves are the most common in Tuvalu (31% of households) but on a few islands (Nanumea, Nanumaga and Nui) primuses predominate. There is wide variation in household access to both types of supplementary kerosene stoves, from a high of 91% on Nanumaga to a low of 31% on Niutao. However, it is impossible to know to what extent ownership of both types of stove by a single household serves to reduce the actual access frequencies within each community. This problem could be avoided in future by tabulating only the most modern type of each service used by each household.

Lighting

Electricity is used to light private households only on Vaitupu and Funafuti, and altogether only 7% of households in Tuvalu are lit by this means. By contrast, hurricane lamps are in practically universal use (83% of all Tuvalu households have access to them, with the percentage increasing for outer islands). Tuvalu households also use pressure kerosene lamps (66% overall) and bottle lamps* (13% overall) as lighting supplements. In general, islands that use bottle lamps extensively report fewer pressure lamps available. Nanumea is the only island making substantial use of bottle lamps, although on Nui they are also more common than on average. Bottle lamp usage is negligible on Nanumaga, Vaitupu, Funafuti and Niulakita. Households on Nanumaga, Nui and Nukulaelae have particularly extensive access to pressure lamps.

Comment on Census Questions

A significant part of the information required on the household sheet of the census concerned housing characteristics. Enumerators and respondents alike needed to devote a substantial amount of thought and effort to completing this section accurately. In view of this, it is necessary to consider whether this innovative section should be included in future censuses.

Arguing positively for this section's inclusion is the fact that these data provide useful indexes of the rate of 'westernization' in Tuvalu, of different levels of amenities existing in the capital and outer islands, of differences that exist in life styles and presumably preferences in different communities. A survey of characteristics such as house style, building materials, occupancy status and level of services is most useful when it is done for the complete population on a standardized basis, as was done in the census.

On the other hand, it is true that although the data collected do point out some interesting intra-Tuvalu differences, they offer no possibility in themselves of fully explaining the reasons for these differences. Explanations for the variations between islands must take account of a variety of complex social, demographic, historical, economic and environmental factors and will require more intensive documentation than that provided by the census data alone. This limits the practical uses to which the information can be put and at the same time raises doubts about whether the purely descriptive results obtained are worth taking a chance that enumerator and respondent accuracy could be diminished by a larger volume of questions.

* 'Bottle lamps' are home-made lamps consisting of a glass jar with a cloth wick suspended in a small amount of kerosene.

Our appraisal is that if that data on housing characteristics prove useful to government during the intercensal period, or if policy changes based on these data are anticipated, thought should be given to including a housing section on the next census as well. Otherwise, the housing questions could perhaps be repeated each decade for general comparative purposes.

CHAPTER 13

POPULATION PROJECTIONS

Sheila Macrae

Introduction

Population projections by sex and age are required for use in development planning, especially in the fields of health, education and employment. They have to be based on assumptions concerning future trends in fertility, mortality and migration and these, in turn, have to be related to past trends. Any projection is only as good as the assumptions on which it is based. The assumptions below are made at a certain point in time on the basis of available statistical and other evidence, but they still contain a large arbitrary element. The limitations of these projections must therefore be appreciated. While there is no guarantee that the actual course of population growth will fall within the range covered, every effort has been made to relate the assumptions on which they are based to the most probable course of events.

Assumptions Underlying Population Projections

Migration: in all projections, it has been assumed that there will be no large-scale migration.

Fertility: two alternative assumptions have been made:-

- a) that the level and pattern of fertility will remain the same as that found in the 1979 Census (i.e. total fertility rate of 2.8 and age-specific fertility rates as shown in Table 5.6);
- b) that the level of fertility will rise from that found in the 1979 Census to a total fertility rate of 3.5 by the end of the century. It is considered unlikely that the fertility level will fall from what is already a low level for a developing country, but, if interest in family planning is not maintained, it is possible that it could rise.

Mortality: two alternative assumptions have been made:-

- a) that the level of mortality will remain the same as that found in the 1979 Census (i.e. expectation of life at birth of 57 years for males and 60 years for females);
- b) that the level of mortality will fall at a moderate rate approximately equivalent to an annual increase of one-third of a year in the life expectancy at birth, and that the present differences between the levels of childhood and adult mortality will gradually decrease.

Based on these assumptions, four sets of projections have been prepared:

<u>Projection</u>	<u>Fertility</u>	<u>Mortality</u>	<u>Migration</u>
1	constant	constant	zero
2	constant	declining	zero
3	increasing	constant	zero
4	increasing	declining	zero

Further details of these assumptions and of the 'component method' (United Nations, 1965) used to derive the projections can be found in Appendix B.

The projections are for the de jure population* and refer to the end of each calendar year, mainly to facilitate comparison with Kiribati. They are at five year intervals** and by five year age groups***. The projections are given in Tables 13.1, 13.2, 13.3, 13.4 and graphed in Figure 13.1. No one projection can be singled out as being more plausible than the others, as this invests an unwarranted authority in that projection above the others. It can be seen that the lowest projection is that based on the assumption that the levels of fertility and mortality currently prevailing in Tuvalu remain constant. However, this projection differs from the highest projection by a mere 152 persons in 1988. For the purposes of short-term planning, it is therefore of little consequence which projection is utilised. For longer-term planning even the lowest projection indicates that the de jure population of Tuvalu will have increased by one-third to approximately 11,500 by the year 2000. The Government of Tuvalu will therefore have to provide increased facilities in health, education, employment, transportation, etc., merely to provide the increased population with the level of services enjoyed by the present community.

* The de jure population was used in the projections as it is a more 'balanced' population being unaffected by temporary migration. The de facto population can be derived from these figures by deducting the number of persons in each age group equivalent to the proportion of absentees in that age group at the time of the Census (see Basic Table 3) on the basis that these proportions remain constant over time.

** For projections for single calendar years, it is adequate with these small numbers to interpolate linearly between the five year age groups in successive five year periods (e.g. if the number of males aged 20-24 is required for the year 1980, the number aged 20-24 in 1978 is subtracted from the number in the same age group in 1983 and two-fifths of the difference added to the number aged 20-24 in 1978).

*** Interpolation into single years of age (required mainly for the young age groups) can be done using quadratic multipliers, as in the graduation of the age distribution (Carrier and Hobcraft, 1971). Alternatively, a simple, but very approximate, graphical method can be used. The number of people in each five year age group is calculated as a percentage of the total population (either for each sex separately or combined). These percentages are then cumulated to give percentages of persons aged under 5 years, under 10 years, etc., and plotted for the age range required and a curve drawn through or near these points. The cumulated percentages under the intermediate single years of age can then be obtained by reading the graph at the appropriate intervals. The uncumulated percentages and hence the numbers at each single year of age can then be derived.

Table 13.1
Population Projection No. 1
Constant Fertility, Constant Mortality, No Migration

Age Group	1978		1983		1988		1993		1998		2003	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
0-4	488	409	536	517	601	581	617	595	592	572	576	555
5-9	467	398	472	398	518	503	581	566	597	579	572	556
10-14	547	508	462	395	467	395	513	499	575	561	590	575
15-19	553	539	540	503	457	391	461	391	507	495	568	556
20-24	482	473	543	531	530	495	448	385	452	487	497	487
25-29	364	387	471	464	530	521	518	486	438	378	442	378
30-34	255	290	355	379	459	455	517	510	505	476	427	370
35-39	207	235	248	283	344	370	446	444	502	498	490	465
40-44	184	220	200	228	239	275	332	359	430	431	484	484
45-49	186	195	176	212	190	220	228	265	317	346	410	415
50-54	186	172	174	185	164	201	178	208	213	251	297	328
55-59	149	152	169	159	158	171	150	185	162	192	194	232
60-64	100	124	129	134	146	140	137	151	129	164	140	170
65-69	58	88	80	102	103	110	116	115	109	124	103	134
70-74	32	63	40	63	55	73	71	79	81	83	75	89
75-79	18	46	18	36	22	36	31	42	39	46	45	48
80-84	10	20	7	20	7	16	9	16	13	18	16	20
85+	5	10	3	6	2	6	2	5	3	5	4	5
TOTAL	4291	4329	4623	4615	4992	4959	5355	5301	5664	5604	5930	5867
Both Sexes	8620	9238	9951	10656	11268	11797						
Average Annual Growth Rate	1.38%	1.49%	1.37%	1.12%	0.92%							

Table 13.2

Population Projection No. 2
Constant Fertility, Declining Mortality, No Migration

Age Group	1978		1983		1988		1993		1998		2003	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
0-4	488	409	539	518	609	585	628	604	608	585	595	571
5-9	467	398	473	399	524	506	593	572	613	592	595	574
10-14	547	508	463	395	469	396	520	503	589	569	609	589
15-19	553	539	541	503	458	392	465	393	515	499	584	565
20-24	482	473	543	531	532	497	451	387	458	388	509	494
25-29	364	387	472	465	532	523	523	489	444	382	452	384
30-34	255	290	355	379	462	456	522	514	514	482	437	376
35-39	207	235	248	283	347	372	451	448	511	505	504	475
40-44	184	220	200	228	241	276	337	363	440	438	499	496
45-49	186	195	176	212	192	221	232	268	326	353	427	427
50-54	186	172	170	185	167	202	183	212	222	258	313	341
55-59	149	152	170	159	157	173	155	190	171	200	208	245
60-64	100	124	130	135	150	143	140	156	139	173	155	184
65-69	58	88	80	102	106	113	124	121	118	134	119	151
70-74	32	63	41	64	58	75	78	85	93	93	90	105
75-79	18	46	18	37	23	38	34	46	47	54	58	61
80-84	10	20	8	20	8	16	10	17	16	22	22	26
85+	5	10	3	6	2	6	2	5	3	6	5	7
TOTAL	4291	4329	4630	4621	5037	4990	5448	5373	5827	5733	6181	6071
Both Sexes	8620		9251		10027		10821		11560		12252	
Average Annual Growth Rate			1.41%		1.61%		1.49%		1.36%		1.16%	

Table 13.3

Population Projection No. 3
Increasing Fertility, Constant Mortality, No Migration

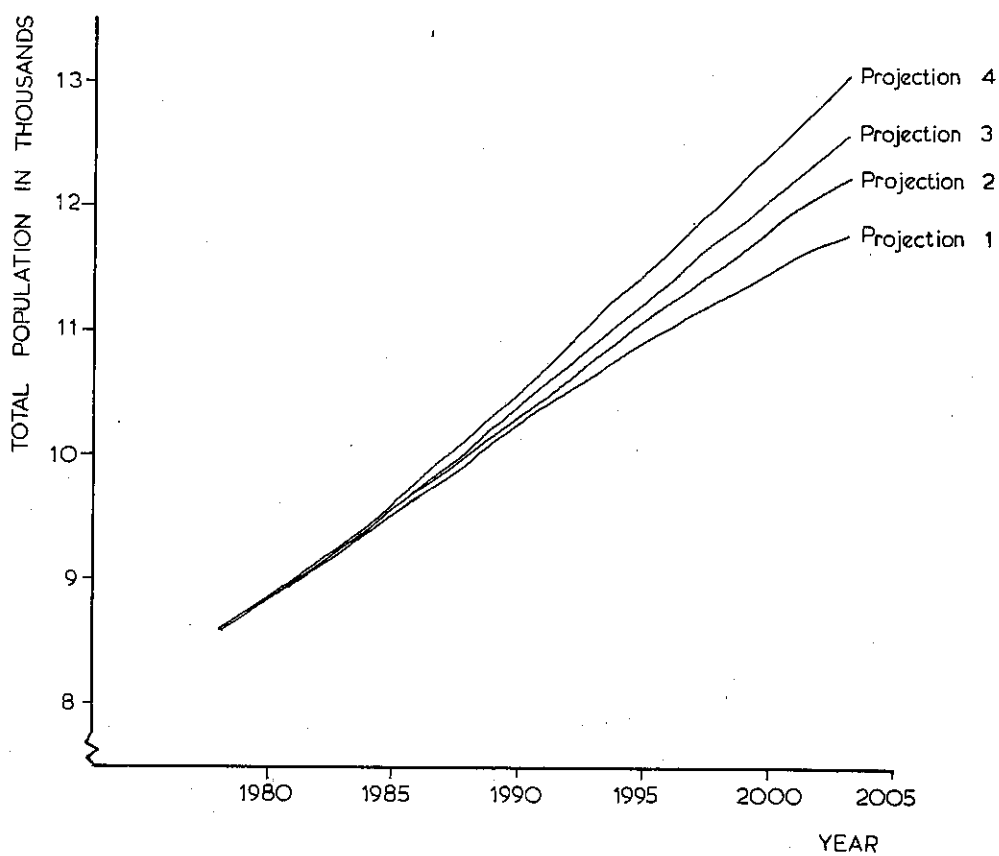
Age Group	1978		1983		1988		1993		1998		2003	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
0-4	488	409	554	534	658	635	702	678	699	675	726	700
5-9	467	398	472	398	536	520	636	617	678	660	676	657
10-14	547	508	462	395	467	395	530	516	629	612	671	655
15-19	553	539	540	503	457	391	461	391	524	511	622	606
20-24	482	473	543	531	530	495	448	385	452	385	514	503
25-29	364	387	471	464	530	521	518	486	438	378	442	378
30-34	255	290	355	379	459	455	517	510	505	476	427	370
35-39	207	235	248	283	344	370	446	444	502	498	490	465
40-44	184	220	200	228	239	275	332	359	430	431	484	484
45-49	186	195	176	212	190	220	228	265	317	346	410	415
50-54	186	172	174	185	164	201	178	208	213	251	297	328
55-59	149	152	169	159	158	171	150	185	162	192	194	232
60-64	100	124	129	134	146	140	137	151	129	164	140	170
65-69	58	88	80	102	103	110	116	115	109	124	103	134
70-74	32	63	40	63	55	73	71	79	81	83	75	89
75-79	18	46	18	36	27	36	31	42	39	46	45	48
80-84	10	20	7	20	7	16	9	16	13	18	16	20
85+	5	10	3	6	2	6	2	5	3	5	4	5
TOTAL	4291	4329	4641	4632	5072	5030	5512	5452	5923	5855	6336	6259
Both Sexes	8620	9273	10102	10964	11778	12595						
Average Annual Growth Rate			1.46%	1.71%	1.64%	1.43%	1.34%					

Table 13.4 Population Projection No. 4
Increasing Fertility, Declining Mortality, No Migration

Age Group	1978		1983		1988		1993		1998		2003	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
0-4	488	409	557	536	665	640	715	687	718	689	750	720
5-9	467	398	473	399	541	523	647	626	698	673	702	676
10-14	547	508	463	395	469	396	537	520	643	622	693	670
15-19	553	539	541	503	458	392	465	393	533	516	638	618
20-24	482	473	543	531	532	497	451	387	458	388	526	511
25-29	364	387	472	465	532	523	523	489	444	382	452	384
30-34	255	290	355	379	462	456	522	514	514	482	437	376
35-39	207	235	248	283	347	372	451	448	511	505	504	475
40-44	184	220	200	228	241	276	337	363	440	438	499	496
45-49	186	195	176	212	192	221	232	268	326	353	427	427
50-54	186	172	170	185	167	202	183	212	222	258	313	341
55-59	149	152	170	159	157	173	155	190	171	200	208	245
60-64	100	124	130	135	150	143	140	156	139	173	155	184
65-69	58	88	80	102	106	113	124	121	118	134	119	151
70-74	32	63	41	64	58	75	78	85	93	93	90	105
75-79	18	46	18	37	23	38	34	46	47	54	58	61
80-84	10	20	8	20	8	16	10	17	16	22	22	26
85+	5	10	3	6	2	6	2	5	3	6	5	7
TOTAL	4291	4329	4648	4639	5110	5062	5606	5527	6094	5988	6598	6473
Both Sexes	8620	9287	10172	11133	12082	13071						
Average Annual Growth Rate	1.49%	1.82%	1.81%	1.64%	1.57%							

Figure 13.1

Projections of Future Population Growth
Based on Different Assumptions Regarding
Fertility, Mortality and Migration



CHAPTER 14

ADMINISTRATIVE REPORT

*Simeona Iosia and
Eric Bailey*

Method and Organisation

Introduction

The last three censuses in the Gilbert and Ellice Islands Colony were at five yearly intervals. Some doubts were expressed about the need for such frequent censuses and it was felt that there could be a reversion to a ten year interval. However, two events caused a change of mind: one was the Separation of the Colony into the two - now independent - countries of Tuvalu and Kiribati, which was accompanied by a substantial movement of population between Kiribati and Tuvalu as well as internal migration of population within Tuvalu, particularly into Funafuti from other islands. The hurricane in 1972 had demolished many houses, particularly on Funafuti, which were subsequently rebuilt. This radical change in the housing situation determined that for the first time a housing census should be a part of the operation.

The Census was taken as at midnight on 27/28th May 1979, approximately five and a half years after the 1973 Census. It was a de facto census of all the people in Tuvalu on census night, including the people on ships in territorial waters. With the permission of the Republic of Nauru, an enumeration of all Tuvaluans on Nauru was made at the same time. This had been the practice in 1963 and 1968, but was omitted in 1973 because a Nauru National Census was expected, although in fact it did not take place at the time planned.

The Questionnaire

The Tuvalu Government invited Mr Eric Bailey, Census Commissioner for Kiribati, and Drs Ko Groenewegen, South Pacific Commission Demographer, to advise on the 1979 Population and Housing Census, and these advisers visited Funafuti between 19th October and 2nd November 1978. In accordance with their recommendations, the Government agreed that the questionnaires, manuals etc. used for the Kiribati Census of 1978 would be appropriate, with some minor modifications, for the Census of Tuvalu.

Most questions in the population census were the same as those asked in 1973, but some additional ones were included. More information was obtained on migration to work centres, a question was asked on land ownership and there was a further demographic question on the vital status of fathers and mothers. The questionnaire given to households aimed to give a broad picture of their involvement in the subsistence and cash economies.

The questionnaire form utilised was selected on the basis of pilot testing in Kiribati, was suitable for hand-sorting and was approved by the Government of Tuvalu.

Supervisors

One supervisor was recruited from each island, with the exception of Niulakita, the least populated island, which was supervised and enumerated by the supervisor and enumerator from Nukulaelae. In general,

supervisors were drawn from the ranks of the retired and unemployed; four of them had served in a similar capacity in the 1973 Census. In an endeavour to overcome the variation in education and experience the supervisors were assembled on Funafuti for a five-week training course commencing on 23rd April 1979. For the first three weeks, they were trained as enumerators and then in their role as census supervisors. This was combined with considerable practice in actual enumeration. For the last two weeks of the course they were trained together with the enumerators. The training comprised approximately 75 hours of instruction and practice for supervisors and 50 hours for enumerators.

Birth Cards

Eight clerks were employed in November 1978 to copy out all the births registered since 1889, the registers for most islands covering the whole period with few gaps. This operation had been tested and utilised in 1973 and had provided about one third of the population with the equivalent of a birth certificate. To maintain the greatly improved quality of age reporting thus achieved, the process was repeated, but on this occasion the birth cards were written in duplicate to avoid the necessity of undertaking full extraction in future censuses. These cards were pre-sorted by the clerks before sending to other islands for re-distribution; any people known to be dead were eliminated and the cards of those people known to be residing on other islands were re-allocated. In 1979 a review of the records of distribution and of enumerators' notes of seeing documentary evidence of birth supported an estimate that 66% of the population were able to produce documentary evidence in which birth cards played a predominant role.

House Numbers

An innovation for 1979 was the numbering of houses. Small aluminium plates were used, each embossed with the words 'Census 1978'* and a five-figure number. They were allocated in blocks to islands and nailed to the principal structure of each household by the supervisors, who measured the superficial floor area of the living/sleeping house or houses at the same time. The plates were therefore unique for each household and provided an additional safeguard against missed houses. The procedure also facilitated the creation of enumeration areas. Supervisors numbered 1324 houses and enumerators added some further houses. Some of the additional numbers were not for houses missed by the supervisors, but for a group of houses classified as one household. Thus there were more numbered houses than households. This numbering was of great value not only in the field, but also during the subsequent processing of the cards and in back reference of queries to the islands. Each questionnaire bore the household number so that throughout processing each card could be immediately identified both geographically and in relation to other members of the household.

Listing Pads

A vital element in this identification was the introduction of 'listing pads'. In the 1973 Census the enumerators had been given rough listing pads on which to jot down details of larger families before

* The number plates were left over from the Kiribati 1978 Census.

attempting to enumerate them. These pads proved so valuable during the check and edit that in 1979 the practice was formalised and in addition to his Record Book, every enumerator had a listing pad on which each person was listed by name, sex, relationship to the head of household and date of birth. These lists were in constant use throughout the processing period and provided independent evidence of the enumerators' intentions when information on the questionnaire was unclear. Once the sorting process had begun and the households had been broken up so that sorting could proceed by sex and age group, the listing pad remained as a record of household composition.

Publicity

During the lead-up period to the Census, news items were published and broadcast from time to time so that it is probable that most people were aware that the Census was in preparation. Special attention was given to informing people of the purpose of the birth cards at the time that these were being distributed, and a few weeks before Census Day the volume of news and interviews was increased with a small attempt at producing posters and pamphlets. The main explanations, however, were given by the supervisors, who explained the purpose of the operation at the time when they were nailing the numbers on to the houses and measuring them.

Enumeration

The Census Commissioner was responsible for the recruitment of 22 enumerators, principally secondary school leavers. Teachers were originally recruited to work as enumerators, but their appointment was turned down because of shipping problems. Enumerators began their first rounds on 14th May 1979 and continued for 11 days, recording full details of all people who had slept in the house on the night before the visit. On 28th May they began the round of second visits to each house to reconcile the information that had been collected previously from the people who had actually slept in the house on Census Night, eliminating those who had died or gone away and adding the newly born and new arrivals. This second visit was to be completed in two days before people forgot exactly who slept in the house on Census Night.

While it was not possible to make a comprehensive cross-check to see if people cancelled on the second visit had been enumerated elsewhere, an effort was made where details of the probable destination were sufficiently precise. Even in these cases, however, there was no assurance that the person was not still in transit on Census Night or had decided to go elsewhere.

At the conclusion of the second round, the supervisors made a check on all questionnaires, and enumerators were not discharged from their duties until this was completed. Where necessary, enumerators were required to return to their areas to obtain missing information or to correct anomalies. On completion of the check, island totals for males and females were telegraphed to Census headquarters. The first raw results were published on 20th July 1979.

Post Enumeration Survey

In order to obtain information on the completeness of enumeration of households and people in households a Post Enumeration Survey (P.E.S.) was carried out. The Island Executive Officers were appointed as P.E.S. enumerators, which meant an extra task for them apart from their normal duties. According to the size of the population, one or two enumeration

areas were randomly selected on every island, the total number being 13 out of the 23 enumeration areas in Tuvalu. However the report of the survey in Nukulaelae never arrived in the Census Office and was subsequently left out of the analysis. The households surveyed numbered 709, i.e. 52% of all households in Tuvalu.

In the enumeration areas included in the P.E.S., one in every four households was surveyed in detail to allow a check of the completeness of persons in households as reported in the Census enumeration. No households and only three persons, all in Funafuti, were found who were not enumerated in the Census enumeration. It was possible to organise a more extensive reconciliation in which, apart from those found in the P.E.S., some other persons were discovered who had been missed or enumerated twice in the census. Because of the very small scale of the Census operation nearly all of the missed persons could be enumerated at a later stage.

The very low proportion of not reported persons in the census, combined with the fact that there were actually more people missed by the P.E.S. itself than by the Census, may have made the Post Enumeration Survey a rather superfluous exercise.

Processing

All the questionnaires and materials from outer islands were collected by the Census Commissioner during his tour to all the islands on 10th June 1979 to check and solve any problems faced by the supervisors and enumerators in the field before the materials were taken to Census headquarters for checking and processing.

The Census headquarters staff at this stage consisted of the Census Commissioner, one processing supervisor, one clerk and eight process clerks, varying from time to time through temporary recruitment to meet particular pressures of work. A series of instruction sheets laid down procedures for four check-and-edit routines to be applied to every questionnaire and for the subsequent sorting procedures. At the conclusion of the checking of each island, every questionnaire was verified by a supervisor. The check and edit began in late June 1979 and verification was completed on 28th September 1979.

The mechanical development of census tabulation for the Gilbert and Ellice Islands was begun in 1963 by I.B.M. Canberra. In 1968 computer processing was undertaken in Honolulu by the Social Science Research Institute of the University of Hawaii and in 1973 by the Geography Department of the University of Canterbury. Hand-sorting for the 1979 Census was introduced primarily because the previous census reports had not been available until more than two years after the census had been taken. While the delays were not specifically attributable to the use of computers, it was believed that by keeping the whole process under local control a more speedy publication could be obtained. There was always a danger of loss or damage to the original questionnaires when transferred to a distant country and although that could be overcome by sending code sheets only, that process would also take time and introduce a new source of error. It was also advantageous that the inevitable problems of data clarification and interpretation could be dealt with as they arose and where the answers were most readily available without the uncertainties of long-distance communication. Hand-sorting gives flexibility in tabulation format, permitting modification to be made after examination of the data, in consultation with those who will make use of it. An important bonus for small countries such as Tuvalu is that hand-sorting is labour-intensive and a large proportion of the money spent is retained in the country.

The system devised was based on sorting the actual questionnaires. This meant that the sorters were working from the answers recorded by

the enumerators and errors which might be introduced by card-punching or coding were eliminated. The only coding undertaken was for 'occupation' and 'industry' and for conversion of date of birth to years of age. This was the first step and at this point a master card was produced by sex and single years of age for each village. Every stage in the sorting process was compared with the master card to eliminate quantitative errors as the sorting proceeded. Qualitative errors were detected by comparison of tables covering the same basic information, when available, and were corrected by back-reference to the original questionnaires. Full verification, other than spot-checks, proved to be too time-consuming to be practical.

Sorting was divided into four 'banks', the first for all persons and based principally on five-year age groups re-sorted by various characteristics. 'Bank 2' was for all persons aged 15 years and over and was based mainly on Home Island and Island of Usual Residence. 'Bank 3' was for the fertility questions for females only and 'Bank 4' for those active in the cash economy, analysing occupation and industry.

'Village by Sex' was the sorting unit and sex had been pre-separated by the use of green questionnaires for males and white for females. The cards themselves had to be small enough for sorting, sufficiently strong to stand up to continuous handling, and flexible in order to facilitate 'fanning' for counting. At the same time it was necessary to include card identification and 25 questions in English/Tuvaluan. The final result was Long Grain SRA 2 card cut to 5.75 inches by 9.5 inches.

The 'sorting bank' was a vertical set of pigeon holes each 6 inches wide, 2 inches high and 8 inches deep, built with 22 shelves and 32 columns. Sorting was guided by interchangeable classification boards on the top and sides, and adjacent shelves were painted in contrasting colours to prevent mis-sorting. However, the sorting staff found the 18 foot long 'Bank' tiring to use and, once they had absorbed the system, devised a method of sorting on the table - securing classification by cross-stacking - which was quicker and, with extra care, as accurate. If hand processing was used again, it would probably not be considered necessary to construct such 'sorting banks'.

The household questionnaire was pink and slightly larger (6.5 inches by 11 inches) and was table-sorted from the beginning. Every card had been hole-punched in the top left-hand corner and the enumerators were supplied with filing tags so that each household sheet and its associated male and female individual sheets were kept together. This household 'pad' was then kept in a polythene bag 9 inches by 14 inches and identified by a yellow stick-on label on which the house number was written.

Hand-sorting began in mid-August and was completed for all questions except occupation and industry and the household economic questions by the end of November 1979. Sorting of the economic questions was delayed because of the late delivery of instructions for Bank 4 from Kiribati. Other tabulations were developed from the recording sheets which the sorting procedures produced. All sorting for individual questionnaires was completed in February 1980 and for household questionnaires in March 1980.

The Report

The demographer Dr Sheila Macrae arrived in Tuvalu on 1st August 1979 for one week's discussions with Government officials on aspects of the census operation before proceeding to Kiribati for a five months' consultancy to analyse the Kiribati census data. She returned to Tuvalu on 11th January 1980, directed the completion of the tabulations and undertook the analysis and writing of all the demographic chapters of the report.

Printing

Because of the lack of printing facilities in Tuvalu, the printing of most census materials was undertaken by the Kiribati printery. The rigid census timetable was never disrupted by lack of the necessary forms for training, enumeration and processing and the full co-operation of the printing staff was an important element in the success of the census operation.

Finance

The Census was financed by the United Nations Fund for Population Activities, which allocated A\$33,531.31 (US\$39,060.03) to the local costs of the project and an additional sum for the consultancy of the demographer. The Government of Tuvalu supplied from its own resources the funding of the Census Commissioner. Of the UNFPA funds, 23.5% (A\$7,860.00) was spent on the wages of local personnel; 29% (A\$9,732.56) was paid out for local and consultancy travelling and subsistence allowances, and the remaining 47.5% (A\$15,938.75) was expended on materials and services, with a pre-dominant proportion external to Tuvalu.

HISTORICAL CALENDAR

DATE	AGE IN 1979	COLONY OR ISLAND	EVENT
1888	91	Nanumaga	First church building constructed by Pastor Asotasi of Samoa.
1890	89	Nui	Church completed and opened by Pastor Kirisome of Samoa.
1891	88	Nui	Bad flood.
1892	87	Colony	Captain Davis of H.M.S. <u>Royalist</u> proclaimed islands a British Protectorate.
1896	83	Funafuti	1st expedition, and drilling in coral to prove Darwin's Theory.
1898	81	Funafuti	3rd expedition to prove Darwin's Theory.
1899	80	Funafuti	4th expedition to prove Darwin's Theory.
1900	79	Colony Nui	Ocean Island included in Protectorate. Samoan Pastor Kirisome retired and Pastor Saura of Samoa elected.
1901	78		
1902	77		
1903	76	Nui	Samoan Pastor Saura retired and Pastor Uele elected.
1904	75		
1905	74		
1906	73	Funafuti	First Mission boarding school for boys. Samoan Pastor Faraimo arrived and Pastor Uele retired.
1907	72		
1908	71	Funafuti	First Mission boarding school for girls - later transferred to Samoa.
1909	70		
1910	69		
1911	68		
1912	67		
1913	66		
1914	65	Colony	First World War broke out in Europe. Westerly gales throughout year and salt spray killed many coconut palms.
1915	64	Nukulaelae	Hurricane hit island and all houses but four damaged.

1916	63	Colony	Establishment of Colony.
1917	62	Colony	Police force set up.
1918	61	Colony	First World War ended.
1919	60		
1920	59	Nui	Second Church built with permanent materials.
1921	58		
1922	57	Nukulaelae	American cargo ship <u>Eurato</u> wrecked on western side of island.
		Colony	Grimble appointed Land Commissioner.
1923	56		
1924	55	Vaitupu	First boarding school on Ellice Islands erected by Mr Kennedy.
		Nanumaga	Ship <u>Tianeti</u> wrecked on eastern side of island.
1925	54	Nui	Samoan Pastor Faraimo died. and Pastor Saura retired.
1926	53		
1927	52		
1928	51	Nukulaelae	American vessel <u>Stealer Maker</u> wrecked on eastern side of island and population built their first church on the islet of Fagaua.
1929	50		
1930	49		
1931	48	Ellice	First book translated into Ellice language, <u>Culture of Vaitupu</u> by D.G. Kennedy.
		Colony	Population census.
		Colony	<u>John Williams V</u> put into commission.
1932	47		
1933	46		
1934	45	Vaitupu	Reef blasting for boat passages.
		Colony	Large proportion of population first vaccinated against small pox.
		Colony	Bad drought in southern Gilberts and Ellice.
		Banaba	Hospital built on Ocean Island by British Phosphate Co.
		Funafuti	Concrete house built for District Commissioner.
1935	44	Colony	King George V Silver Jubilee.

1936	43	Colony	King George V died. King Edward VIII abdicated.
		Colony	Visit of Governor from Fiji.
		Colony	Measles epidemic affecting half the population.
		Ellice	Recruiting for Ocean Island resumed after some years.
1937	42	Nanumea	Reef blasting for boat passage.
		Colony	Coronation of George VI and Elizabeth celebrated.
		Ellice	Land Commission sat at Vaitupu and Niutao.
1938	41		
1939	40	Colony	War broke out in Europe.
		Colony	Rutu Sowani Puamau M.B.E., first local medical officer, died.
1940	39	Colony	New Zealand coast watchers posted.
1941	38	Colony	First raids on Colony by Japanese in December.
1942	37	Ellice	British Administration set up in Ellice.
		Colony	New Zealand coastwatchers rounded up by Japanese.
1943	36	Nukufetau	U.S. Forces occupied the island and established airfield in March. First bombing of island by Japanese in April.
		Nanumea	U.S. Forces occupied island and established airfield in May.
		Tarawa and Ellice	Battle of Tarawa in November; Administration moved back to Tarawa from Ellice.
1944	35	Funafuti	Gaol closed.
		Colony	U.S. Troops in occupation.
		Nui	Pastor Saua of Samoa retired.
		Colony	G.E.I.C. Labour force formed.
1945	34	Colony	Labour corps joined in Solomon battles.
		Colony	U.S. Troops in occupation.
		Ocean	Gilbertese labour executed and Japanese on Ocean Island, previously by-passed, surrendered to Australian forces.
		Colony	Japanese surrender.
		Nui	Ellice pastor Founuku Tipelu arrived.
		Abemama	King George V School re-opened
		Ocean	Banabans taken to Rabi in Fiji group.
1946	33	Vaitupu	Influenza and measles epidemics.
		Colony	Last U.S. Troops withdrawn.

1947	32	Colony	Census of population
		Niutao	Lake Land Commission sat in October.
1948	31	Nanumaga	Lake Land Commission sat from June until August.
		Nukulaelae	Lake Land Commission sat in December.
		Colony	<u>John Williams V</u> withdrawn.
1949	30	Colony	<u>John Williams VI</u> put into service.
		Ocean	Murder of civil engineer and his wife.
1950	29	Colony	Copra Board established.
		Nui	Co-operative established in August.
		Nanumea	The <u>Margaret</u> ran on a reef in September.
1951	28	Nukufetau	The R.C.S. <u>Nei Nimanoa</u> wrecked after one year's service.
1952	27	Colony	George VI died and Elizabeth proclaimed Queen.
		Funafuti	Bad outbreak of influenza.
		Vaitupu	Bad outbreak of influenza.
		Nanumaga	Westerly gales with big waves which reached <u>pulaka</u> pit gardens.
		Nui	Island primary school established.
1953	26	Colony	King George V School moved from Abemama to Tarawa.
		Vaitupu	Elisefou School amalgamated with K.G.V.
1954	25		
1955	24		
1956	23		
1957	22	Colony	Medical campaign and mass treatment of yaws.
1958	21	Colony	Hospital moved from Abakoro to Bikenibeu.
1959	20	Colony	Visit of Duke of Edinburgh.
1960	19	Colony	Elaine Bernacchi School for girls opened at Tarawa.
		Tarawa	Teacher Training College established.
1961	18	Colony	1st South Pacific Games at Suva. Colony representative sent.
1962	17	Nui	Royal Engineer blasting party arrived.
1963	16	Colony	Census of population.
		Colony	Establishment of Advisory Council.
		Tarawa	House of Representatives opened.
		Nui	First visit of Resident Commissioner, V.J. Anderson.
		Funafuti	Airfield and hotel constructed.

1964	15	Colony	Fiji Airways starts regular Air Service to Funafuti and Bonriki.
1965	14	Nanumaga	Construction of first <u>maneapa</u> in permanent materials.
		Nukulaelae	Party of 15 Americans visited the islands for survey work.
1966	13	Colony	Change to decimal currency.
		Nanumea	Sisters Joans and Uraula began school at Nanumea.
1967	12	Colony	Establishment of House of Representatives. Elections for first fully elected Local Council under 1966 Local Government Ordinance.
		Nukulaelae	Population of the island built new <u>maneapa</u> .
1968	11	Colony	Drought year.
		Colony	Census of population.
		Nui	Local Government established and Council Office built with permanent materials.
1969	10	Nui	Classroom of two blocks built with permanent materials.
		Colony	Mr V.J. Anderson, Resident Commissioner, retired.
1970	9	Colony	Arrival of new Resident Commissioner, Sir John Field.
		Vaitupu	Sir John Field re-named Motufoua girls' school as Lady Field School.
		Funafuti	Visit of His Royal Highness the Prince of Wales.
		Nui	New <u>maneapa</u> built with permanent materials.
1971	8	Colony	Hon. Reuben Uatiosa M.B.E. elected Leader of Government Business. South Pacific Games attended by Colony athletes.
1972	7	Funafuti	Hurricane Bebe.
1973	6	Nanumaga	Council classroom built in permanent materials.
		Nui	Extension of two classroom blocks built.
		Nui	Police Department resumed.

HOUSEHOLD QUESTIONNAIRE



TUVALU ISLANDS
CENSUS
1979
LAUGA TINO

HOUSEHOLD SHEET PEPA MOTE FALE

DATES

1st Visit/Lauga muamua

2nd Visit/Lauga ite lua

Enumerator

CONFIDENTIAL/TAPU MA FAKAASI

Island/Fenua _____
Village/Fakai _____
E.A.No _____ House No _____
Head of Household _____
Matai ote kaiga _____
Private _____ Collective/Tino Tokouke _____
Io Ia Loa _____

HOUSING CENSUS LAUGA FALE

STATUS/TULAGA FALE		ROOF/TUFALE		WALLS/PUT		FLOOR/POLA	
Own House & Land/Fale ionsa manafa	'1'	Thatch P/Leu	'1'	Screen/Pola	'1'	Stones/Fatu	'1'
Own House/Fale Seioia Manafa	'2'	Thatch C/Pola	'2'	Midribs/Lafo	'2'	Midribs/Paa	'2'
Borrowed/Ke Fakaoga Fakaa	'3'	Metal/Kaapa	'3'	Masonite	'3'	Wood/Laupapa	'3'
Rented/Fale Tongi	'4'	Plastic/Nailon	'4'	Cement Block	'4'	Cement/Sameni	'4'

KITCHEN:	Traditional	European	BATHROOM:	Traditional	European
FALEKUKA:	Tuvalu	Palagi	FALEKOUKOU:	Tuvalu	Palagi

SERVICES/ANA MEA		TOILET:		WATER:	
Flush Septic	Water Seal	Flush Septic	Water Seal	Rain Storage	Tanker
Tank/Tani o	Faletiko i uta	Tank/Tani o	Faletiko i uta	Te Vaisameni	Delivered
Faletiko	ite Fenua	Faletiko	ite Fenua	Vaiua	Vai e Utu

COOKING:		LIGHTING:	
Traditional	Primus	Bottle Lamp	Hurricane Lamps
Mafai e isi	Pulaimesi	Moli Fagu	Moli Matagi

TE VAI:		TE MOI:	
Reef Latrine	Well	Pressure Lamps	Electricity
Faletiko kola	Te leva i Munita	Te Kasa	Te Iti
i Tai	Vai		
	Vaiua		
	Keli		

TRADITIONAL LIFE		Total/Aofaki	
NOFONOFOGA FAKA TATOU		Men	Women
Aofaki e mafai o galue		Tagata	Fafine
FISHING/FAIKA			
Ocean/Te Moana			
Lagoon/Te Namo			
Reef/Kaautua			
Collection/Te Papa			
Lands/Tokilakan			
Toddy/Te Kaleve			
Vaipulaka/Pulaka io Taro			
Copra/Te Popo			
Pigs/Puaka			
Chicken/Moa			
House/Galuega ite Fale			
Toddy/Te Kaleve			
Dry Salting Fish/Ika Masina			
Collect Firewood/Fafie			
Handicraft/Mea Taulima			
Mats/Papa, Takafi			
Basket/Ato			
Thatch/Lau			
String/Kolokolo			
House Building/Faite Fale			

CAPITAL GOODS AU MEA TOTINO		
How Many Used in House	In Use	Broken
E fia mea e Fakaoga ite Fale	Fakaoga	Masei
Radio/Letio		
Guitar/Kitala		
Camera/Mea Peiata		
Motor Cycle/Pasika.iti		
Bicycle/Pasika		
Power Boat/Moto		
Canoe/Vaka		
Fish Net/Tili		
Sewing Machine/Masini suisui		
Frig. Freezer/Aisa		

CASH INPUT TUPE MAUA		Total/Aofaki	
How Many Contribute Cash		Men	Women
Aofai e Mauamau ei Tupe		Tagata	Fafine
Wages/Peofuga			
Own Business/Tau Pisinisi			
Pension/Tupe Mealofa			
Produce etc/Pakaukau io Niisi			
Remittances	Where from	Regular	Occasional
Telmo	Kai Ika	Maua Masani	Maua Vaitaia
Mai Ia			

Persons in This Household		1973-79	At School/Akoga	1975-79 Se Akoga	Before/Maimua 1975	Total/Aofaki	Family Units
Males	Tagata						
Females	Fafine						
Te Aofaki o Tino							
ite Fale nei							

INDIVIDUAL QUESTIONNAIRE - MALES

TUVALU IS. CENSUS 1979

MALE SHEET
PEPA MO TAGATA

E.A. HOUSE PERSON

Name

Igoa

B

Relationship

To Head/Matai

A

Present 2nd Visit
Lauga Fakalua

Z

FOR ALL PERSONS TINO KATOA

ONLY PERSONS BORN 1963 OR BEFORE
TINO NE FANAU 1963 IO ME MAINUA

DATE OF BIRTH	Day	Month	Year
ASO	Aso	Masina	Tausaga
FANAU			

REAL MOTHER ALIVE?	Alive	Dead
MATUA TONU OLA?	Ola	Mate

Mother's Eldest Child?	Yes	No
Tamaliki Matua?	Ao	Ikai

Mother in House - Write Her	
Person No./E Nofo te Matua	
ite Pale - Tusi tona Napa	

REAL FATHER ALIVE?	Alive	Dead
TAMANA TONU E OLA?	Ola	Mate

MARITAL STATUS NOFOGA TAULUAVAGA	
Never Married/Siki Avaga.....'1'	
Married/Avaga.....'2'	
Widowed/Avaga ko Mate.....'3'	
Divorced/Mavae.....'4'	

RELIGION LOTU	
Tuvaluan Church/Lotu Tuvalu.....'1'	
7th Day Adventist/Asofitu.....'2'	
Bahai/Bahai.....'3'	
Jehovahs Witness/Lotu Molimau.....'4'	
Other/Niisi Lotu Aka.....'5'	

Refused/Se Talia.....'7'

EDUCATION AKOKOGA	
Still Attending/Akoga.....'1'	
Not Attending/Se Akoga.....'2'	

Highest Class Completed	
Vasega Maluga ne Palele	

ETHNIC ORIGIN ATUFENUA TOU	
Tuvaluan.....'1'	
Tuv-Gil/Tuv-Kilipati.....'2'	
Tuv-Other/Tuv-Niisi Aka.....'3'	
Gilbertese/Kilipati io Niisi.....'4'	
European/Palagi.....'5'	
Other/Tino Fakatea...	

HOME ISLAND OR COUNTRY FENUA

WHERE OWNS LANDS	Home Is/Tou Fenua
I FEA OU MANAFA	Yes No
	Ao Ikai
1	3
2	4

ISLAND OF RESIDENCE OVER 12 MONTHS	
FENIA NE NOFO KOE IELI Years Lived	
Tusi Tausaga	
Circle Residence Now	
Funafuti	
Banaba	
Nauru	
Tarawa	
Gilbert Is.	
Overseas	
Other Tuvalu Island	

ACTIVITY THIS WEEK	
GALUEGA ITE VALASO NEI	
Village Life/Olaga ite Fakai.....'1'	
Home Duties/Galuega ite Pale.....'2'	
Visitors/Maloo.....'3'	
Too Old/Toeaina.....'4'	
Disabled/Se katoatoa.....'5'	
Inmate/(Prisoner etc)/Polonga.....'6'	
Student/Tamaliki Akoga.....'7'	
Resting/Tatelekaga.....'8'	

CASH WORKERS/GALUE KI TUPE	
Employer/Tino Fakagalua.....'9'	
Employee/Tino Galue.....'10'	
Works Alone/Galue Tokotasi.....'11'	
Seeking Work/Salasala Galuega.....'12'	

OCCUPATION & INDUSTRY
NGALUEGA MO NGALUE IFEA

a. Now Oc.	Years Tausaga
Nei Ind.	
b. Other Oc.	
Niisi Ind.	
c. Other Oc.	
Niisi Ind.	

TRAINING FAKAAKOAKO

INDIVIDUAL QUESTIONNAIRE - FEMALES (side a)

TUVALU IS. CENSUS 1979

FEMALE SHEET
Pepa Mo Fafine

E.A.	HOUSE	PERSON
A		
Present 2nd Visit		
Langa Fakalua		
Z		

Name

Igoa

Relationship

To Head/Matai

FOR ALL PERSONS TINO KATO

DATE OF BIRTH	Day	Month	Year
ASO			
FANAU			

REAL MOTHER ALIVE?	Alive	Dead
MATUA TONU OLA?	Ola	Mate

Mother's Eldest Child?	Yes	No
Tamaliki Matua?	Ao	Ikai

Mother in House - Write Her Person No./E Nofa te Matua	
ite Fale - Tusi tona Napa	

REAL FATHER ALIVE?	Alive	Dead
TAMANA TONU E OLA?	Ola	Mate

MARITAL STATUS	NOFOGA TAUUAVAGA
Never Married/Siki Avaga.....	'1'
Married/Avaga.....	'2'
Widowed/Avaga ko Mate.....	'3'
Divorced/Mavae.....	'4'

RELIGION	LOTU
Tuvaluan Church/Lotu Tuvalu.....	'1'
7th Day Adventist/Asofitu.....	'2'
Bahai/Bahai.....	'3'
Jehovahs Witness/Lotu Molimau.....	'4'
Other/Niisi Lotu Aka.....	'5'
Refused/Se Talia.....	'7'

EDUCATION	AKOKOGA
Still Attending/Akoga.....	'1'
Not Attending/Se Akoga.....	'2'
Highest Class Completed	
Vasega Maluga ne Palele	

ETHNIC ORIGIN	ATUFENUA TOU
Tuvaluan.....	'1'
Tuv-Gil/Tuv-Kilipati.....	'2'
Tuv-Other/Tuv-Niisi Aka.....	'3'
Gilbertese/Kilipati io Niisi.....	'4'
European/Palagi.....	'5'
Other/Tino Fakatea...	

HOME ISLAND OR COUNTRY	FENUA

ONLY PERSONS BORN 1963 OR BEFORE
TINO NE FANAU 1963 IO ME MAIMUA

WHERE OWNS LANDS	Home Is/Tou Fenua
I FEA OU MANAFA	Yes No
	Ao Ikai
1	3
2	4

ISLAND OF RESIDENCE	OVER 12 MONTHS
FENIA NE NOFO KOE IEI	Years Lived
	Tusi Tausaga
Circle Residence Now	
Funafuti	
Banaba	
Nauru	
Tarawa	
Gilbert Is.	
Overseas	
Other Tuvalu Island	

ACTIVITY THIS WEEK	
GALUEGA ITE VAIASO NEI	
Village Life/Olaga ite Fakai.....	'1'
Home Duties/Galuega ite Fale.....	'2'
Visitors/Maloo.....	'3'
Too Old/Toeaina.....	'4'
Disabled/Se katoatoa.....	'5'
Inmate/(Prisoner etc)/Polonga.....	'6'
Student/Tamaliki Akoga.....	'7'
Hesting/Tatelekaga.....	'8'
CASH WORKERS/GALUE KI TUPE	
Employer/Tino Fakagalue.....	'9'
Employee/Tino Galue.....	'10'
Works Alone/Galue Tokotasi.....	'11'
Seeking Work/Salasala Galuega.....	'12'

OCCUPATION & INDUSTRY	Years Tausaga
NGALUEGA MO NGALUE IFEA	
a. Now Oc.	
Nei Ind.	
b. Other Oc.	
Niisi Ind.	
c. Other Oc.	
Niisi Ind.	
TRAINING FAKAAKOAKO	

FEMALES P.T.O. - MO FAFINE FULI SUA FEITUA

INDIVIDUAL QUESTIONNAIRE - FEMALES (side b)

TO BE ANSWERED BY ALL FEMALES

KE TALIGINA NE FAFINE KATO

Number of Children EVER BORN ALIVE.....		AA		
Te Aofaki o Tamaliki ne FANAU OLA MAI.....				
Number of These ALIVE ON CENSUS NIGHT		BB		
Te Aofaki o Latou Konei koi OLA ITE PO OTE LAUGA				
<u>FIRST CHILD'S</u>	Day	Month	Year	
<u>TAMA MUAMUA</u>	Aso	Masina	Tausaga	
Date of Birth				CC
Aso Fanau	---	---	---	
<u>LAST CHILD'S</u>	Day	Month	Year	
<u>TAMA FAKAOTI</u>	Aso	Masina	Tausaga	
Date of Birth				DD
Aso Fanau	---	---	---	
Now Alive or Dead?				EE
E Ola Me Mate Nai?	<input type="checkbox"/> Alive <input type="checkbox"/> Ola	<input type="checkbox"/> Dead <input type="checkbox"/> Mate		
Last Child Is				FF
Tama Fakaoti	<input type="checkbox"/> Male <input type="checkbox"/> Tagata	<input type="checkbox"/> Female <input type="checkbox"/> Fafine		
Age of Mother at Birth of First Child				GG
Tausaga ote Matua I Taimi Ne Fanau Iei Te				
Tama Muamua			----- Years	

TERMINOLOGY

For the benefit of readers unfamiliar with demographic and other terminology, the indices of fertility and mortality discussed in this report may be defined as follows:

the crude birth rate (CBR) and crude death rate (CDR) are the annual number of births and deaths, respectively, divided by the average or mid-year population, and generally expressed per thousand;

the rate of natural increase (r) is the difference between the crude birth and death rates, and generally expressed as a percentage;

the age-specific fertility rate is the annual number of children borne by women of a specified age or age group, divided by the average number of women of that age or age group;

the age-specific mortality rate is the annual number of deaths of persons of a specified age or age group, divided by the average number of living persons of that age or age group;

the infant mortality rate (IMR) is the number of children dying in the first year of life out of 1000 born alive;

the life table survivors at age x (denoted by l_x in standard notation) is the number of persons surviving to age x out of 1000 live births;

the expectation of life at age x (denoted by e_x) is the average number of additional years a person age x can expect to live;

the total fertility rate (TFR) is the average number of children borne alive by a woman who lives to the end of her reproductive life - i.e. to the age of 50;

the gross reproduction rate (GRR) is the average number of female children borne alive by a woman living to the age of 50.

In Chapter 10 the anthropological term 'diachronic' can be defined as follows:

diachronic - involving the dimension of time. For example, a study which looks at the changes that have occurred over a period of time.

ANALYTICAL METHODOLOGYIntroduction

This is not the forum for an elaborate treatise on the demographic techniques used in the analysis of the census data. All techniques applied are published elsewhere; hence only a brief outline of each will be given and only the aspects which are specific to the Tuvalu data will be described in detail.

Graduation of the Age Distribution

After some consideration, it was decided (since the reporting errors were not extensive and since the numbers involved were so small) to graduate the reported age distribution of the de jure indigenous males and females using only a simple formula recommended by the United Nations (1956) which takes a weighted average of the reported number in one five year age group and of the two age groups above and below it. The formula is:

$$S_a = 1/16(-S_{-2} + 4S_{-1} + 10S + 4S_1 - S_2)$$

where: S_a = adjusted number of persons in the central five year age group, S

S_{-1}, S_1 = adjacent age groups

S_{-2}, S_2 = next adjacent age groups

For the two youngest and two oldest age groups, this formula was applied to the reported ages in single years (the numbers in the oldest ages being so small as to make graduation somewhat superfluous); the numbers aged 1 were derived from an average of three age groups and those aged 0 from information on expected births based on the mortality patterns.

Interpolation into single years of age was effected principally by means of quadratic multipliers - i.e. by the fitting of a quadratic curve to three neighbouring quinquennial age groups (Carrier and Hobcraft, 1971). The graduated de jure indigenous population by sex and single years of age is shown in Table 3.4.

Estimates of Fertility

A Comparison of Cumulated Current Fertility with
Average Parity - the Brass 'P/F Ratio Technique'

The theory underlying this well-known technique (Brass et al, 1968) may be summarised briefly as follows: if the level and pattern of fertility in a population have remained constant, and if the information on both current fertility (i.e. births in the last 12 months) and children ever born are accurately reported, the two curves should coincide closely. In practice, however, large relative discrepancies are often found, particularly for the younger age groups of women. Since the reports on children ever born by women in these age groups are generally thought to be reasonably reliable, and since most of the children must have been born in the recent past, the principal cause of the discrepancy would appear to be the under-reporting (rarely over-reporting) of the current births. If it can be further assumed that this mis-reporting of current births is not correlated with the age of the women, the proportionate discrepancies

found for the younger women may be used as correction factors to be applied to the current fertility rates at all ages in the child-bearing range. The application of the technique to Tuvalu data gave results shown in Table B.1.

Table B.1. Comparison of Cumulated Current Fertility with Average Parity and Derived Adjusted Age-Specific Fertility Rates (asfr)

Age Group of Women	Cumulated Current Fertility F	Average Parity P	P/F	Adjusted asfr
15-19	.0226	.0457	2.0021	.0180
20-24	.4802	.4798	.9992	.1542
25-29	1.3510	1.4432	1.0682	.1895
30-34	2.0574	2.5000	1.2151	.1138
35-39	2.4280	3.5164	1.4483	.0543
40-44	2.5346	4.5320	1.7881	.0053
45-49	2.5670	5.6077	2.1845	.0058
Total Fertility Rate				2.7045

The P/F ratio is seen to be almost unity for the age-group 20-24, indicating that, for this age group at least, there was no under-reporting of the current births relative to the reported parities. For the age-group 25-29, there is indication of some under-reporting of current births relative to those reported as ever born, and this increases with each subsequent age group. (The P/F ratio for the age-group 15-19 can be disregarded because of the exceptionally small numbers on which it is based.)

Such a shortfall, albeit small for the younger age groups of women, can occur for a variety of reasons. Some of these (such as date of last live birth not stated or age of mother not stated) which have occurred in other censuses were not evident in the Tuvalu census. However, it is possible that, in common with censuses elsewhere, some enumerators tended to derive the date of the woman's last live birth from the age of the youngest child found to be living with her at the time of the census. Thus if a woman had borne a child during the preceding 12 months which had died, it might have been omitted. The question on date of last live birth allowed no information to be collected on women bearing more than one child during the preceding 12 months, or on women who had borne a child and themselves died during that period. Time reference errors, short-term fluctuations in fertility such that the birth rate in the year preceding the census was below average, or random variation due to the small numbers involved also all contribute to the shortfall.

The main problem with the technique is therefore to decide upon the size of the correction factor to be adopted. If Brass' original suggestion that the P/F ratio for the 20-24 age group be adopted as the correction factor were followed, no correction to the f values would be required. However, since the numbers in each age group are small, and since there is a query over the possible under-reporting of children ever-born (see Fertility and Mortality Chapters) so that the derived parity levels are too low, it was decided to adjust the reported age-specific fertility rates by a weighted average of the P/F ratios for the age groups 20-24 and 25-29. Application of this ratio (1.0527) gave

the adjusted age-specific fertility rates shown in Table B.1 and a total fertility rate of 2.7. If fertility has been falling in the decade or so preceding the census (as seems likely), the raising of the current fertility levels (F) by a factor dependent on higher past fertility levels (P) results in an over-adjustment upwards of each age-specific fertility rate and hence a falsely inflated value for the total fertility rate. This effect may be counter-acted by the possible error in reporting of children ever born but should be borne in mind when assessing the value of the total fertility rate derived by this technique.

Comparison of the Age Distribution with that of Stable Population Models

In the stable population, the rate of growth and the age and sex composition are determined solely by a set of age-specific birth rates and a set of age-specific death rates. The simplest case is the stationary population in which there is neither increase nor decrease - i.e. the rate of increase, r , is zero. If the population is not stable, the effect of fertility must be taken into account separately. The age structure of the stationary population has to be revised to include the net effect of fertility and mortality as represented by r . Since it is now realised that mortality is of less importance than fertility in determining r , knowledge of the level of fertility is used to construct the stable population after determination of r .

The main problem in this technique is to determine r , the intrinsic rate of increase, and this was done utilising Coale's method (1957), in which it is related to the net reproduction rate through the formula $NRR = e^{ra}$, where a is the mean length of generation, i.e. the average interval of years between mothers' and daughters' ages.

The effect of the rate of increase, r , on each age interval of the stationary population is e^{-ra} ;

where: r - rate of natural increase in the stable population, remaining perpetually fixed

a - midpoint of each age interval

The effect of this rate of growth is calculated by multiplying each age group in the stationary population by the corresponding value of e^{-ra} to give the figures for the stable population at each age; these are then recalculated as a distribution of some round number and cumulated to give proportions aged under each successive five year age interval. Since the construction of this stable population was based on specified levels of fertility and mortality, if the mortality level used is that of the model life table of Tuvalu females, comparison of this stable population with the cumulated age distribution of females will give an indication of the level of fertility in the Tuvalu population.

Three models were constructed, all with the same mortality and with assumed total fertility rates of 2.5, 3.0 and 4.0. The derived total fertility rates are shown in Table B.2. It can be seen that the estimates based on the three youngest age groups are of the order of those derived from data on current and lifetime fertility whereas all other estimates are higher. To assess these results, the different sources of bias to which the 'stable population' estimates were subjected - age misreporting, non-stability of mortality and fertility, and distortion of the age distribution by migration - need to be considered.

Age reporting errors are not thought to have been so substantial as to have greatly affected the results from this technique. However, it is probable that fertility levels have fallen slightly and mortality levels fallen considerably in the last inter-censal period. There has also been immigration into Tuvalu on a large scale. These factors together reduce the validity of the results, which serve merely as general confirmation of the level of other fertility estimates.

Table B.2 Cumulated Percentage Age Distributions of
Stable Population Models with Total Fertility Rates of
2.5, 3.0, 4.0, compared with that of Tuvalu
Indigenous Females¹

Age	Cumulated Percentage Age Distributions				Implied TFR Tuvalu
	Stable Population Models			Tuvalu	
	TFR	TFR	TFR		
	2.5	3.0	4.0		
5	8.6	10.4	13.7	9.3	2.69
10	16.8	20.1	25.7	18.5	2.76
15	24.9	29.3	36.5	30.4	3.16
20	32.7	37.9	46.2	43.2	3.63
25	40.4	46.1	54.9	53.2	4.24
30	47.9	53.8	62.7	62.6	4.00
35	55.1	60.9	69.5	68.8	3.92
40	62.0	67.6	75.6	74.3	3.84

1. Including those enumerated on Nauru.

Stable Populations and Child/Woman Ratios

This technique, developed by Rele (1967), uses a series of stable populations of fixed gross reproduction rates (GRR) to determine the relationship between the GRR and the child/woman ratio, since this was found to be approximately linear for a fixed level of mortality, linear regression equations could be determined for each level of e_0 and each child/woman ratio. Applying the coefficients of these equations to the child/woman ratios from the graduated age distribution of the de jure indigenous population (using level $e_0 = 60$) gave GRRs (and hence TFRs) of:

C/W ratio	$\frac{C(0-4)}{W(15-44)}$	$\frac{C(0-4)}{W(15-49)}$	$\frac{C(5-9)}{W(20-49)}$	$\frac{C(5-9)}{W(20-54)}$
GRR	1.3242	1.3872	1.5604	1.6001
TFR	2.7146	2.8438	3.1988	3.2802

The results are encouragingly consistent; those based on children aged 0-4 match each other particularly closely, as do those based on children aged 5-9. The results based on children aged 0-4 years are generally to be preferred since they refer to the more recent past than do the results based on children aged 5-9. However, again, all results are similar to those found by other techniques.

Inter-censal Parity Change

The technique described in a mimeo by Trussell and Menkin (1978) is an adaptation of the one originally proposed by Arretx (1973). If information about children ever born is available from two censuses approximately five years apart, then the change in the number of children ever born by a particular age group of women reflects their inter-censal fertility, and it is possible to estimate an inter-censal age-specific fertility schedule. The data required are merely the children ever born by age group of mother and the number of women aged 15-49 at each of two

censuses approximately five years apart, in the case of Tuvalu in 1973 and 1979.

With no age misreporting, the women aged, e.g. 25-29 in May 1979 can be approximately regarded as the survivors of the women aged 20-24 in December 1973. The change in average parity between 1973 and 1979 indicates the inter-censal fertility of the women. Therefore, the first step in the method is to calculate a synthetic inter-censal parity distribution, by progressively summing the parity changes from one census to the next for each cohort of women. From this, a cumulated fertility schedule is derived by applying suitable weights, estimated from model fertility schedules, to adjacent parity values in order to calculate cumulated fertility to the boundary age between the two age groups. The weights are calculated using information on the inter-censal age pattern of fertility available from the synthetic parity distribution. From the cumulated fertility at exact ages, the inter-censal age-specific fertility rates are obtained by differencing and dividing by five. These can then be summed to give the inter-censal total fertility rate, found to be 2.65. The steps of the procedure are shown in Table B.3. The non-comparability of the two populations in 1973 and 1979 and the fact that the inter-censal interval was not exactly five years need to be borne in mind when interpreting the results. Nevertheless, the derived total fertility rate for the inter-censal period is of the order of those found by other techniques.

Table B.3 Fertility Estimation from Inter-Censal Parity Change;
Data from 1973 Census of GEIC
and 1979 Census of Tuvalu

Age Group of Women	1973 ¹ Mean Parities	1979 ² Mean Parities	Synthetic Parities	$\frac{5P_i - 5P_{i-5}}{5P_i}$	W _i	F	f
15-19	.0428	.0457	.0457	.0947	.724	.1664	.0333
20-24	.6667	.4798	.4827	.3809	.497	.8776	.1422
25-29	1.8783	1.4514	1.2674	.6709	.470	1.5968	.1438
30-34	3.0219	2.5000	1.8891	.7925	.420	2.1761	.1159
35-39	4.2845	3.5164	2.3836	.8983	.258	2.5839	.0816
40-44	5.6134	4.5545	2.6536	1.0022	.123	2.6486	.0129
45-49	5.8901	5.6077	2.6479	-	-.042	2.6477	-
TFR (Total x 5) = 2.6485							

1. Polynesians in GEIC
2. Indigenous women

The 'Own-Children' Technique

This technique, developed by Lee-Jay Cho (1973), derives age-specific fertility rates for a ten or fifteen year period prior to a census. It requires no special census question, but does require computer analysis of the tabulations of children under age 15 by age of mother, both ages being required in single years. Age of mother can only be determined for those mothers who are enumerated in the same household as their children. In principle, the method is quite simple and consists of three stages: the children classified by age and age of mother are 'reverse survived' to estimate the number of births by age of mother in each year preceding the census; likewise, the mothers are 'reverse survived' back to the birth of

each child to derive the numbers of women at each single year of age for each year preceding the census; finally, the births are divided by the mean numbers of women at each single year of age for each year preceding the census to obtain age-specific fertility rates. Although this method is straightforward in principle, there are several problems inherent in its implementation, succinctly discussed by Feeney (1975). The limitations to the method, in addition to it requiring a considerable volume of calculation, are its sensitivity to census under-counting and age misreporting. Outweighing these disadvantages, are the benefits: it provides age-specific fertility rates by single years of age for each of fifteen years prior to the census based on the data from only one census; the population need not be closed to migration; and the method is relatively insensitive to recall errors.

The data on which the method is based are tabulated in Basic Table 16. Three other additional pieces of information are required for the analysis:

- a) the mortality of children and women in the recent past. Although mortality is thought to have changed in the period immediately preceding the census, the model life tables derived for Tuvalu in 1979 were used to represent the mortality levels (Retherford et al, 1980);
- b) proportions of children not living with their mothers (see Basic Table 16). Of the children aged under five years, 17.6% of them were not living in the same households as their mothers. These proportions increase comparably with age for both sexes and only 4.4% of children aged under one year were not living in the same household as their mothers, whereas a quarter of all children aged 4 were not. These figures both reflect and mask some of the adoption customs in Tuvalu;
- c) an estimate of the degree of under-enumeration of children and/or women. This was taken as zero in this instance, as the percentage was not known, but thought to be very low. Since both the children and the women are subject to census under-enumeration, any adjustment factor, when the undercount of children is only slightly greater than that of women, will have little effect on the estimated fertility rate.

The age-specific fertility rates and total fertility rates for the five year periods preceding the census are shown in Table B.4. The rates for single years were not studied in detail as they were based on too few cases to be meaningful. There is seen to be a decline in fertility over the period studied, the greater fall being in the period between 10-14 and 5-9 years prior to the 1979 census (i.e. approximately in the years between 1965-69 and 1970-74). Considering the age-pattern of the decline, it is seen that the percentage declines in the age-specific fertility rates are highest at older ages, as could be expected. The mode of the distributions is in the age group 25-29 years throughout, as was found for the reported distribution.

Summary of Fertility Estimations

The values for the total fertility rate derived by the different techniques outlined above are summarised in Table B.5 and those of the age-specific rates graphed in Figure B.1. In the determination of a single value for the total fertility rate and of the pattern of the fertility distribution, some subjective judgement was necessarily involved. With consideration for the strengths and weaknesses of all methods employed, it was finally decided to select a value of 2.8 for the total fertility rate, and to adopt the distribution based on the results from the 'own-children' technique for the five-year period

Figure B.1

Age-Specific Fertility Distributions
Derived from Different Techniques

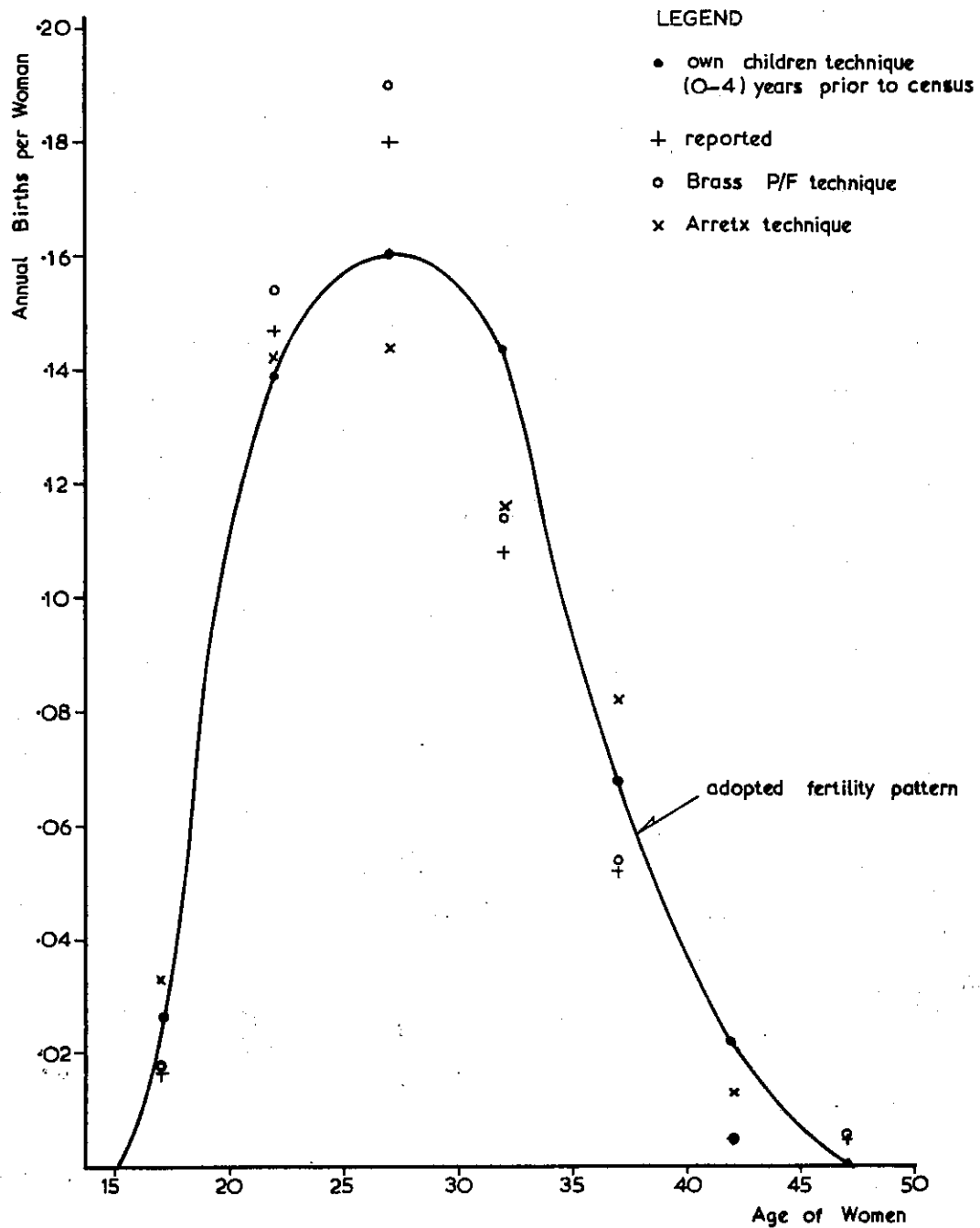


Table B.4 Summary Age-Specific Fertility Rates and
Total Fertility Rates
for the 15 Year Period Prior to the Census in 1979
as Derived by the 'Own-Children' Technique

Age Group of Women	Years Prior to the Census		
	0-4	5-9	10-14
15-19	.0269	.0466	.0440
20-24	.1391	.1901	.2128
25-29	.1597	.1754	.2583
30-34	.1440	.1286	.2252
35-39	.0682	.0765	.1725
40-44	.0217	.0407	.0762
45-49	.0013	.0049	.0083
TFR	2.8047	3.3138	4.9873

Table B.5 Total Fertility Rates Determined from
All Techniques Used

Technique	Total Fertility Rate
Brass P/F ratio	2.70
Age Distribution	2.69 - 4.24
Rel: Child/Woman Ratio	2.72 - 3.28
Inter-censal Parity Change	2.65
'Own-Children' technique	2.81 (0-4 years prior to census)
Reported	2.6

immediately preceding the census for the age-specific fertility distribution (see Table 5.6). These were considered best to represent the level and pattern of fertility in Tuvalu and were the values used in the population projections.

Estimates of Mortality

Infant and Child Mortality

All techniques convert the proportions of children dying by age group of mother into life table probabilities of dying by a specified age. The mortality in the first two years of life has been adopted rather than the more conventional index of infant mortality (i.e. deaths in the first year of life) for the reasons given by Brass (1968): 'It is derived from the retrospective reports of children dead to the age group of mothers (20-24) whose experience is most recent and reliable (numbers of mothers aged 15-19 are too small); the relationship to deaths at later ages is more consistent from population to population for mortality under two years than under one; the proportions surviving to age two is a good guide for the selection of age distributions in stable population models'.

(i) Brass' technique

Brass (1968, 1976) provides a table of multipliers from which an appropriate factor may be selected for converting the proportions of children dying by conventional five year age group of mother into the corresponding life table mortality rates. The selection of this factor is based on the ratio P_2/P_3 (the ratio of mean children born per woman aged 20-24 to those born per woman aged 25-29). With the Tuvalu data, use was therefore made primarily of the data for women aged 20-24, 25-29 and 30-34. To minimise the effects of age misreporting and to reduce errors caused by small numbers, a 'graduated' estimate of the l_2 value was obtained from the estimates of l_2 , l_3 and l_5 shown in Table B.6 using Brass logit* system and the General Standard Life Table.** This process of graduation gave a value of l_2 of 938 - only two points different from that of 940 derived from the 20-24 age group only, thereby confirming the consistency of the results. Because the small numbers involved were subject to large sampling variability, the technique was also applied to the data grouped in ten-year age groups of women (15-24 and 25-34). Estimates of q_2 and q_5 were obtained using P_1/P_2 as the fertility location parameter and appropriate multiplying factors (Brass et al., 1968). The results are also shown in Table B.6 and it can be seen that they are only slightly different from those obtained from the conventional five year age groupings. (Inclusion of the women enumerated on Nauru made little difference to these results.)

Table B.6 Mortality Estimates from Proportions of Children Dying by Age Group of Mother
Brass' Technique

Age Group of Mother	Proportion of Children Dying, D_i	Conversion Factor K_i	Life Table Age x	Estimated Proportion Dying between Birth and Age x $q_x = K_i D_i$	Estimated Life Table Survivors at Age x per 1000	Graduated l_2
15-19	.0417	1.280	1	.0534	947	938
20-24	.0523	1.138	2	.0599	940	
25-29	.0630	1.059	3	.0667	933	
30-34	.0775	1.049	5	.0813	919	
$P_2/P_3 = .333$						
15-24	.0514	1.102	2	.0566	943	941
25-34	.0706	1.063	5	.0750	925	
$P_1/P_2 = .0952$						

*The logit is defined as $\frac{1}{2} \log_e \frac{p}{1-p}$, where p is the proportion concerned.

**The General Standard Life Table^P was used rather than the African Standard Life Table, in keeping with the practice employed in other Pacific Islands, as the former has been shown to reflect the mortality patterns in the Pacific better than the latter.

(ii) Sullivan's technique

Sullivan (1972) described the relationship between P_2/P_3 , the proportions of children dying, and the life table mortality rates by a series of regression equations. Different equations are available for each of the four 'families' of model life tables of the Regional Sets of Coale and Demeny (1966). Since the underlying pattern of mortality in Tuvalu was not known, only the equations for the West model life tables were applied to the data. The value of l_2 so obtained was 941, from which was derived a 'graduated' l_2 of 937 using the appropriate West model life table (level 19.5) as the standard, rather than the General Standard as in the Brass technique.

(iii) Trussell's technique

Trussell (1975) calculated a new series of regression coefficients to construct a more complex equation for the derivation of the multiplying factor to be applied to the proportions of children dead. Application of this method to the Tuvalu data gave a value of l_2 of 942, and a value of l_2 graduated with the General Standard of 939. These estimates differ only slightly from those obtained from Sullivan's original equations. When data errors are at all appreciable, they swamp the differences due to the choice of technique.

(iv) Feeney's technique

This method (Feeney, 1976) does not depend on there having been constant mortality in the years preceding the census, but attempts to quantify any changes in mortality which may have occurred, as deduced from the proportions of children surviving by age group of mother. Feeney produced one equation for each age group of women to calculate infant mortality rates at various times preceding the census, for specified values of M (the mean age of child-bearing) and Q (the proportion of children dead to women in that age group). These equations only detect overall linear trends of mortality and are not sensitive to small fluctuations in mortality. Feeney based his calculations on the logit system and the General Standard life table and so it was possible, to facilitate comparison with results from other techniques, to convert the infant mortality rates into proportions dying by age two, (q_2). The results of the technique are shown in Table B.7, and are compared with the values for Polynesians enumerated in the Ellice Islands in 1973 and the whole of GEIC in 1973 and 1968.

(v) Conclusions on infant and child mortality

The values of l_2 obtained from all techniques are gratifyingly close to each other and the average value was therefore derived from the Brass, Sullivan (West) and Trussell results with and without graduation. (The results from the Feeney method were omitted since they were average values over a time period.) The overall value of l_2 so derived was 940 for both sexes combined. To obtain separate rates for males and females, a separation factor is required. Following the practice employed in other censuses in the Pacific, the appropriate West Model Life Table (Coale and Demeny, 1966, *ibid*) was selected on the basis of this l_2 value (West level 19.42) and l_2 values of 934 for males and 947 for females were obtained. These were the values used in the calculations of the model life tables - see below.

However, there is an element of doubt as to how closely these values of l_2 represent reality. There is a possibility that there has been under-reporting of children ever born (on which information all these techniques are based) which would result in the derived childhood mortality levels being too favourable (i.e. too low). There is no way of estimating the extent of any such under-reporting, but there is some evidence from the answers to other census questions to support this possibility:-

- a) Of the 167 children reported as having been born in the year preceding the census, 12 (i.e. 7.2%) were reported as having died. This percentage is approximately equal to two-thirds of the infant mortality rate (hence, 108 per 1000), whereas the infant mortality rate derived from the Tuvalu model life tables (see below) is only 42 per 1000. Although the small number of reported deaths precludes firm conclusions, there is certainly some indication that the infant mortality rate of the model life tables is a minimum value, as in other censuses the value derived from the reported deaths has generally been found to be lower than that derived from model life tables due to the under-reporting of the former;
- b) If the 156 children enumerated as aged 0 (themselves no doubt subject to some under-reporting) are 'reverse-survived' using sex-specific mortality rates from the Tuvalu model life tables (see below), they are found to be the survivors of a cohort of 161 births occurring in the year preceding the census. Comparison with the 167 births reported as having occurred in the same year shows there to be fewer 'reverse-survived' births than reported births, contrary to the usual findings in other censuses due to the under-reporting of births. It seems that the survivorship ratios used are too favourable and that the survivors are really from a larger cohort of births which has experienced heavier mortality than is indicated by the mortality rates used.

Table B.7 Estimation of Infant Mortality Rate (IMR)
 n Years Prior to the Census (YPC) and
 Derivation of the Proportions Dying by Age 2

Feeney's Technique				
	Age Group of Women	Infant Mortality Rate	Years Prior to Census	Numbers per 1000 Dying by Age 2
1979	20-24	45	1.7	60
Tuvaluans	25-29	45	3.4	60
	30-34	50	5.4	66
	35-39	61	7.8	81
1973	20-24	84	2.2	
Polynesians in the Ellice Islands	25-29	67	4.0	
	30-34	81	6.1	
	35-39	98	8.6	
1973	20-24	83	2.0	
Polynesians in GEIC	25-29	72	3.8	
	30-34	89	5.9	
	35-39	96	8.4	
1968	20-24	116	2.0	
Polynesians in GEIC	25-29	89	3.8	
	30-34	94	5.9	
	35-39	115	8.4	

Childhood mortality of Polynesians fell by approximately a quarter in the 1968-73 inter-censal period (Veltman, 1979, *ibid*) but by approximately a half in the 1973-79 inter-censal period. In addition, in the model life tables for Tuvalu, the values of beta are quite high, confirming that the childhood mortality is low compared with adult mortality.

Hence, from available data, there is evidence that the derived childhood mortality levels may indeed be slightly too favourable. However, the extent of this and of any under-reporting of children ever born cannot be quantified, since there are no reliable registration data available from which to calculate childhood mortality rates directly. It can only be borne in mind that the level of childhood mortality derived by indirect techniques is a minimum value.

Adult Mortality

Several techniques are now available - all with their limitations - for the estimation of adult mortality. However, the questions asked in the census were those required for only one of these techniques, the so-called 'Orphanhood Technique' (Brass and Hill, 1973). In this, estimates of adult mortality are derived from proportions of persons with surviving parents, tabulated by age group of respondents, in a manner analogous to the estimation of infant and child mortality from proportions of children dying and surviving tabulated by age group of mother. Again, the principal information required relates to the shape of the fertility distribution which determines the age of parents at the time of birth of their children. Given this information, and considering female mortality, the following relationship has been derived:

$$\frac{l_{25+N}}{l_{25}} = W_N \cdot {}_5P_{N-5} + (1-W_N) \cdot {}_5P_N$$

where: ${}_5P_{N-5}$, ${}_5P_N$ are the proportions of respondents with mothers alive in the lower and upper age groups of the pair of adjacent five year age groups, respectively, surrounding the midpoint N

l_{25} , l_{25+N} are life table survivors at ages 25 and 25+N (25 is taken as the base age, close to the mean age of mothers at the birth of their children)

W_N are weights whose values are selected from tables on the basis of the mean age M of mothers at the birth of their children

M is usually calculated directly from the distribution of women during the 12 months preceding the census, by age group, obtained from the data on the date of the most recent live birth. This method of calculation was used for the Tuvalu data, and the M so obtained was 26.31 years. The corresponding values of W_N were calculated by linear interpolation in the 'Brass-Hill' table. The derivation of l_{25+N}/l_{25} is shown in Table B.8.

In principle, the estimation of male adult mortality from survivorship of fathers proceeds in exactly the same manner as for mothers, but there are additional difficulties related to the fact that specific fertility distributions of males are less well-known than for females and have a higher spread of ages. However, a table of weighting factors, comparable to that used for females, has been constructed, but with one slight modification to allow for the fact that the father of a child is known to be alive at its conception but not necessarily at its birth. Again the main problem is the estimation of M, the mean age of fathers at the birth of their children. In the case of Tuvalu, it was found by adding the difference between the singulate mean age at marriage of males* (28.97 years) and females* (24.54 years) to the M for females, giving an M for males of 30.74 years.

* Including those enumerated in Nauru and adjusting the ages in Basic Table 8.

Table B.8 Estimation of l_{B+N}/l_B for Females from Proportions of Respondents with Mothers Alive

Age Group of Respondent	Proportions with Mother Alive		N	W_N (M = 26.31)	B+N	l_{25+N}/l_{25}	
	Male Respondent	Female Respondent				Male Respondent	Female Respondent
5-9	.9797	.9843	10	.608	35	.9694	.9762
10-14	.9534	.9637	15	.697	40	.9500	.9531
15-19	.9423	.9286	20	.781	45	.9348	.9175
20-24	.9080	.8780	25	.841	50	.8949	.8693
25-29	.8255	.8235	30	.872	55	.8140	.8092
30-34	.7353	.7121	35	.888	60	.7257	.7024
35-39	.6493	.6256	40	.840	65	.6264	.6142
40-44	.5063	.5545	45	.763	70	.4763	.5212
45-49	.3799	.4140	50	.571	75	.3528	.3424
50-54	.3167	.2470	55	.328	80	.2105	.1930
55-59	.1586	.1667	60	.105	85	.0627	.0748
60-64	.0515	.0640					

This is lower than that obtained in many other countries but is comparable to that of 29.0 years in Niue (1976). The calculations are shown in Table B.9. These survivorship ratios from specified base ages are then used in the derivation of model life tables for each sex.

The Construction of the Model Life Tables

Having derived estimates of l_2 from the data on proportions of children dying and surviving and of l_{B+N}/l_B from the proportions of surviving parents, the next stage was to link them together by means of a model life table. For this purpose, Brass' two-parameter model life table system was used (Brass, 1971). In this system, the first parameter, alpha, determines the general level of mortality, while the second parameter, beta, determines the relationship between adult and child mortality - i.e. the 'steepness' with which the mortality rates increase with age. Given the values of these parameters, the whole model life table can be generated by means of the expression

$$Y_{(x)} = \alpha + \beta Y_S(x)$$

where: $Y_{(x)}$ is the logit of the life table survivors in the model to be constructed,

$Y_S(x)$ is the corresponding logit in a 'standard' life table.

Any suitable life table may be adopted as the standard, and in the case of Tuvalu, Brass' General Standard life table was so used. Having determined l_2 , alpha is readily obtained for any given value of beta, since $\alpha = Y_{(2)} - \beta Y_{8(2)}$. The central value of beta is one, so for a range of values of beta between 0.7 and 1.3, the possible values of alpha are shown in Table B.10.

Table B.9 Estimation of $l_{B+N+2.5}/l_B$ for Males from Proportions of Respondents with Fathers Alive

Age Group of Respondent	Proportions with Father Alive		N	W_N ($M = 30.74$ $B = 32.5$)	$B+N+2.5$	$l_{35+N}/l_{32.5}$	
	Male Respondent	Female Respondent				Male Respondent	Female Respondent
5-9	.9640	.9765					
10-14	.9292	.9335	10	.371	45	.9421	.9495
15-19	.8569	.8496	15	.405	50	.8862	.8836
20-24	.7914	.7967	20	.375	55	.8160	.8165
25-29	.7127	.7231	25	.298	60	.7362	.7450
30-34	.6814	.5720	30	.120	65	.6852	.5901
35-39	.4645	.4493	35	-.090	70	.4450	.4383
40-44	.3418	.3136	40	-.425	75	.2897	.2559
45-49	.2011	.1613	45	-.691	80	.1039	.0561
50-54	.0500	.0602	50	-.809	85	(-.0722)	(-.0216)
55-59	.0690	.0267	55	-.782	90	.0839	.0005

The idea, therefore, was to construct models with these values of alpha and beta and to find, more or less by trial and error, which gave the best fit to the estimates of adult mortality described in the preceding section. The technique involved the estimation of beta, not directly from the values of l_{B+N}/l_B , but from those of the expectation of life (e_x). The calculation of e_x involves a built-in system of cumulation which has the additional merit of reducing the effects of age-misreporting.

Applying the procedure for females, the series of estimates l_{B+N}/l_B (see Table B.8) enable the abridged life table for females aged B and over to be constructed. If the radix of the life table is situated at age B rather than at birth, the life table survivors, life table population and expectation of life at higher ages are readily obtained. These estimates of e_x are then compared with the corresponding values obtained from the models, and beta estimated by linear interpolation between the models. The steps of the procedure are shown in Table B.11.

The selection of the final value of beta from the range shown in the table was necessarily somewhat subjective, and two main considerations were borne in mind:

- a) The estimates based on the expectations of life at ages 25 and 60+ were almost certainly subject to bias - the former on account of the understatement of dead mothers by young children (probably because of the adoption of young children of dead mothers by other women who are then regarded as the true mothers), the latter on account of the systematic over-statement of age among old people, and also in Tuvalu, the particularly small numbers involved on which the proportions were based;
- b) Estimates based on female respondents are generally to be preferred to those based on males, since there tends to be less systematic one-way bias in the misreporting of female ages as against male.

With these considerations in mind, a final value of beta for females was taken as 1.21.

Table B.10 Range of Values of Alpha for Males and Females
 l_2 fixed at 934 for Males and 947 for Females;
 Beta varying from 0.7 to 1.3; Brass General Standard

Beta	Alpha	
	Males $l_2 = 934$	Females $l_2 = 947$
0.7	-.8243	-.9409
0.8	-.7527	-.8693
0.9	-.6812	-.7979
1.0	-.6097	-.7263
1.1	-.5382	-.6548
1.2	-.4667	-.5833
1.3	-.3951	-.5117

Table B.11 Estimation of Beta for Females by Comparison
 of e_x Values derived from Survival of Mothers
 with Values from Brass Models

Age x	Estimates from Survival of Mothers		Brass Models			Estimated Beta	
	Male Respon- dent e_x	Female Respon- dent e_x	$\beta=1.1$ e_x	$\beta=1.2$ e_x	$\beta=1.3$ e_x	Male Respon- dent β	Female Respon- dent β
35	33.53	33.03	35.33	33.42	31.64	1.19	1.22
40	29.17	28.76	31.04	29.22	27.53	1.20	1.23
45	24.60	24.78	26.82	25.09	23.51	1.23	1.22
50	20.59	21.02	22.71	21.10	19.63	1.23	1.21
55	17.38	17.39	18.78	17.31	15.99	1.20	1.19
60	14.19	14.66	15.06	13.76	12.61	1.17	1.13
65	11.05	11.41	11.71	10.62	9.68	1.16	1.13

For males, such an estimation of beta was unsatisfactory and it was necessary to rely on Brass' 'trial and error' method (Brass and Hill, 1973, ibid.) using data from female respondents of a limited age range, for the reasons given above. A value for $l_{32.5}$ was obtained from the appropriate West model life table having an l_2 value of 934 (i.e. West level 19.42). Division of this into the series of $l_{32.5+2.5+N}/l_{32.5}$ values gave l_{35+N} values and hence their logits. Averaging of these gave a logit value which could be inserted in the equation:

$$\beta = Y_X - Y_2/Y(s)_X - Y(s)_2$$

where the standard values of logits are derived from the General Standard life table. The derived value of beta is then used to obtain a value of alpha from the equation: $Y_2 = \alpha + \beta Y(s)_2$ and these two parameters are then used in a similar equation to obtain $Y_{32.5}$ and hence a new value for $l_{32.5}$. The whole procedure is repeated to give a second estimate of beta, and continued until a constant value of beta is found. In practice, the third estimate was found to be satisfactory. The method is illustrated in Table B.12, and the final value of beta was taken as 1.22. The high values of beta for both males and females reflect the fact that child mortality has declined at a faster rate than has adult mortality, since beta determines the relationship between adult and child mortality.

Table B.12

Estimation of Beta for Females
by Brass' "Trial and Error" Method
(Female Respondents only; $l_2 = .9338$)

$l_{32.5}$	N+35	$l_{N+35}/l_{32.5}$	l_{N+35}	Y_{N+35}	Mean Y_{N+35}	Estimate of beta
.8726	55	.8165	.7125	-.4538	.0139	1.1744
	60	.7450	.6501	-.3097		
	65	.5901	.5149	-.0298		
	70	.4383	.3825	.2395		
	75	.2559	.2233	.6233		
.8362	55	.8165	.6827	-.3831	.0606	1.2154
	60	.7450	.6230	-.2512		
	65	.5901	.4934	.0132		
	70	.4383	.3665	.2736		
	75	.2559	.2140	.6505		
.8312	55	.8165	.6787	-.3739	.0669	1.2210
	60	.7450	.6193	-.2433		
	65	.5901	.4905	.0190		
	70	.4383	.3643	.2784		
	75	.2559	.2127	.6544		

$$\beta = Y_X - Y_2/Y(s)_X - Y(s)_2$$

$$Y_2 = \alpha + \beta Y(s)_2$$

$$Y_{32.5} = \alpha + \beta Y(s)_{32.5}$$

The derived model life table equations were therefore:

$$\text{Males} \quad Y_x = -.4508 + 1.22Y(s)_x$$

$$\text{Females} \quad Y_x = -.5761 + 1.21Y(s)_x$$

These equations were then used to generate the life tables shown in Tables 6.4a and 6.4b.

Construction of Population Projections

The standard method of population projection is by components (United Nations, 1956). This method involves the specification of the population elements by sex and age intervals and the separate projections of each component of population change (i.e. fertility, mortality and migration). The first step in projecting is to select a base population year. Although the census was on May 27th 1979 and thus nearer to the middle of the year than to the end of it, it was decided to take the projections as from December 31st 1978 to facilitate comparison with Kiribati. The graduated de jure population was back-projected to December 31st 1978; this actually involved a loss of only 16 males and 16 females and a pro rata adjustment to this effect was made.

The projections of the population and its composition from the base year are then calculated year by year for five year intervals, based on various assumptions concerning migration, fertility and mortality. For migration, it was assumed that there would be no large-scale migration in or out of Tuvalu, so all projections assume that migration rates are zero. In the projections based on the assumption of increasing fertility, the total fertility rate was made to rise linearly from 2.8 in 1979 to 3.5 in the period 1998-2003. The United Nations 'broad peak' low fertility model (United Nations, 1963) was adopted to represent the shape of the age-specific fertility distribution in the period 1998-2003. The fertility rate in each age group was assumed to increase linearly to this final value as shown in Table B.13. As regards mortality, the projections in which it is taken as having declined all assume a modest and steady fall such that the expectation of life at birth increases by about one-third of a year annually. Brass' model life table system was used to represent the decline in mortality. The male and female model life tables constructed as described earlier in this appendix for the indigenous population of Tuvalu served as the standard and the mortality decrease was represented by changes in alpha of -0.05 per five years. With the decline in the level of mortality, the present differences between the levels of childhood and adult mortality are assumed to decrease - represented in the projections by a linear decline in the values of beta 1.22 for males and 1.21 for females in 1979 to 1.14 and 1.13 for males and females, respectively, in the period 1998-2003. The scheme for the mortality decline is shown in Table B.14, which includes the values for the proportions surviving to age two (l_2) and for the expectations of life at birth (e_0), which are derived from the life tables based on this series of parameters.

P_x survival ratios derived from the specific life table by sex and age are applied to the population at the beginning of a projection period to obtain the surviving population at the end of the five year period. The fertility component is then introduced; projected age-specific fertility rates are applied to the average number of women in each of the child-bearing ages 15-49 to obtain the number of births in the year, which are then subject to specific survival rates. This process is repeated for each quinquennium of the projection period. The four sets of population projections are shown in Tables 13.1, 13.2, 13.3 and 13.4.

Table B.13 Assumed Increase in Age-Specific Fertility Rates
1978-2003

Age Group	1978-83	1983-88	1988-93	1993-98	1998-2003
15-19	.0284	.0316	.0349	.0381	.0413
20-24	.1471	.1635	.1800	.1964	.2128
25-29	.1656	.1779	.1902	.2026	.2149
30-34	.1428	.1409	.1390	.1370	.1351
35-39	.0683	.0687	.0692	.0696	.0700
40-44	.0219	.0224	.0229	.0233	.0238
45-49	.0014	.0016	.0017	.0019	.0021
TOTAL (x5)	2.88	3.03	3.19	3.34	3.50

Table B.14 Scheme of Mortality Decline Used in
Population Projections 1978-2003

Parameter	1978-83		1983-88		1988-93		1993-98		1998-2003	
	M	F	M	F	M	F	M	F	M	F
alpha	-.50	-.60	-.55	-.65	-.60	-.70	-.65	-.75	-.70	-.80
beta	1.22	1.21	1.20	1.19	1.18	1.17	1.16	1.15	1.14	1.13
l_2	940	949	944	953	947	956	951	959	954	961
e_0	58.2	60.7	59.5	61.9	60.8	63.2	62.1	64.4	63.3	65.6

THE ENUMERATOR'S MANUAL

The concepts embodied in the tables depend for their validity upon the degree to which each individual enumerator had grasped the definitions and intentions which underlie the census questions, and upon the uniformity with which these definitions were conveyed to the enumerators in their training by the Census Commissioner.

Each enumerator received copies of the Enumerator's Manual in Tuvaluan. In the 1973 Report the opinion was expressed that the Manual used in that census should have been shorter and more imperative. Although the range of instructions for the expanded questionnaire was greater in the 1979 Census, a substantial reduction was achieved. Training was based on the Manual, and much of the material omitted was included in the Training Manual, which reproduced the Enumerator's Manual between paragraphs to be read out or explained by the trainer, with notes on practical work.

The Enumerator's Manual began by explaining the importance of the enumerator's role, what the census was and why it was taken. Injunctions on confidentiality followed, with instructions on how to set about the work, the routines to be followed and the persons to be enumerated. The summary of the manual which follows sets out in full only those parts which are relevant to the interpretation or evaluation of the published tables, or which relate to new questions.

Numbering of Houses

One objection to the numbering of houses was that it would encourage enumerators to follow the numbers and not look for other houses. On balance it was felt that this possibility was outweighed by the advantages, but the Manual explained the duty of the enumerator:

16. Your Supervisor has already numbered and measured the houses and it may be convenient to follow his numbers. But remember that he may have missed some houses. It is your responsibility to seek out every house where people sleep whether they have been numbered before or not.

The Household

This was followed by the definition of a "household", which has been unchanged since 1963:

17. The word Household is very important and it has a special meaning in this census which you must know:

A 'Household' is a group of persons, whether related or not, living in a house, a group of houses or part of a house, who usually eat food prepared for them in the same kitchen.

18. We call this a 'Private' household and this is the pattern of living which most enumerators will find throughout their area, but there are exceptions and we call these 'Collective' households. A collective household is where people are unrelated as in a hospital, prison or a boarding school.

19. But remember that staff housing, workers' quarters or other separate houses which are part of a collective institution, but are occupied on a private household basis by doctors, nurses, warders, caretakers or teachers, are to be treated as 'Private' households.

20. Sometimes a group of people, such a choir, is staying in a maneapa and for these people the maneapa is a 'Collective' household. But in some maneapas people live with their families just because they are staying there for some reason and such a family group will be treated as a 'Private' household occupying a part of a building.

Completing the Questionnaires

As will be appreciated from examination of the questionnaires, most of the questions were multiple-choice and provided a code number to be circled. But the enumerator was also required to underline the appropriate characteristic so that careless circling was likely to be avoided. Generally enumerators complied fully with the instructions and in the few cases of confusion most problems could be resolved from the internal evidence of the household.

Emphasis was placed upon an intelligent approach to the work:

28(iv) Remember that you are not just writing down answers without thinking. You must use your judgement at every step to make sure that what is told to you is sensible. If you have written a girl's name and are told the child is a 'son' or 'male', ask about it - perhaps you have not heard the name correctly or they are talking about a different person. Never jump to conclusions: do not write "daughter" without asking to get the true information.

Relationships should be consistent with ages: a woman born in 1933 is unlikely to have a daughter born in 1943, nor a woman born in 1915 to have a son born in 1970, but it could be an adopted son or a step-son.

THINK OF YOUR ENUMERATION AS BEING CARRIED OUT IN TWO STAGES: FIRST FINDING THE ANSWER TO EACH QUESTION AND SECONDLY CHECKING THE PROBABILITY OF THE ANSWER.

Enumerators were required to write a few words of explanation for confusing or improbable replies:

28(v) If something is unusual it is not necessarily untrue. Therefore to save your Supervisor and Census Headquarters from wasting time you should write an explanation on the side or back of the sheet. For example if there are two children born in the same year and they are "twins" then write 'twins' on each sheet and near the mother's "Fertility Block" if they are only children. It is not impossible for a woman to give birth at 10 years of age or if over 50, but if she does so she will remember it and you should write "aged 10 confirmed". Similarly make a note if married people are described as 'attending school', if there is some unusual ethnic origin in a family or an aged inactive couple appear to be living alone not on their own island. Anything unusual which you have asked questions about and satisfied yourself that it is true should have a note of explanation and the checkers will know it is not a mistake.

Vacant Houses

The method of dealing with "Vacant" houses was laid down:

28(vii) You may mark a house which is clearly a sleeping house as 'VACANT' only if the neighbours are able to inform you with certainty

that the owners of the house are living somewhere else. But on the First Visit you will write the word "VACANT" in pencil because there may be someone living there when you make your Second Visit.

(viii) If a house appears to be occupied, but there is nobody there when you call - perhaps they are all away at work or attending a celebration - you must call back at some time when the people are likely to be there. Often the neighbours can tell you this - perhaps the people come back every day from the maneapa to feed the pigs - and if so you can leave a message with them to arrange a meeting. If you have called more than three times at such a house and still found nobody on your Second Round you must inform your Supervisor.

The Listing Pad

Then followed instructions for the use of the "Listing Pad":

30. Take out your Listing Pad -

- (a) Write the house Number in the first column.
- (b) List by Name, Relationship to the Head and Sex all the people who slept in the House the previous night, starting with the Head, then his wife and then her children. But if the children are married put the name of the husband or wife next to them and list the grandchildren before going on to the next child of the Head or his wife. Then put other relatives like the father or mother of the Head or his wife and other relatives and finally visitors.
- (c) Have a look round and see if there are any elderly people sitting in or near the house, whether there are young children asleep or babies being nursed by their mothers and make sure that all those are included on your list.
- (d) Give each name on the list a "Person Number" in the order explained above in (b).
- (e) Now in the next column make sure you have written the relationship to the Head correctly. Distinguish between real 'son' and 'daughter' and 'adopted son' or 'adopted daughter'. Also distinguish step-children, that is children by a previous wife, or husband: for example if Taake is the Head and Maalis his wife, write "Sioni-son of Taake only" or "Lote-daughter of Maalia only". It is also helpful with third generation children to note the name and 'person number' of the mother as well: for example write 'grandson', son of Lote No. 4".
- (f) Now ask if they have any Birth Certificates, Record of Birth cards, Baptismal Certificates or a Family Bible with dates of birth written in it. Have these produced and enter these dates next to the persons to whom they relate and make a mark alongside in the column headed "Record Seen" to indicate that

you have seen a written document giving that date of birth. Now you have to fill in dates of birth for all the other persons you have listed.

Date of Birth

Instructions were given on estimating "date of birth" when there was no documentary evidence:

31. This is the most important single question in the Census. Many people do not remember their date of birth, but it is not difficult to find it out if you use common sense. These are the sort of things which can help you:-

- (a) start from the fixed dates in the household which you have obtained from a Document and relate the others to those;
- (b) if you have no fixed date in the household remember that nearby households are often occupied by relatives and by checking back you may perhaps find the date of birth of an older or younger brother or sister or a son to give a reference date for the new household;
- (c) a wife may remember that when she first went to school her husband was in the top class - 6 to 8 years older than her; or a sister may remember that her brother was beginning to ride their father's motor-cycle (16-17) when she became "tamafine" (11-12) - 4 or 5 years older than her; a woman may remember that she left school in class 8 (14) to get married and her eldest child was born the next year - the child about 15 years younger than her;
- (d) you have an Historical Calendar to help you to assess ages. This presents a fairly good record of events which people may remember and associate with either their own births or the births of their children. If a young man does not know his age, look at him and you may form an impression that he is about twenty years old. You look in your calendar and see that the Duke of Edinburgh visited the country in 1959. Ask if he was already born then. The parents may help by saying "He was able to walk when the Duke of Edinburgh came" and so you know he was about one year old when the Duke came and his date of birth can be safely put down as 1958;
- (e) the age in years in 1978 is written alongside the date in the Historical Calendar so that if somebody tells you his age in years you can quickly and accurately convert it to "Date of Birth". There is no need to worry about days and months: if you are told an exact date write it down, but otherwise the Year is sufficient, except for children born from 1970 to 1978 - for these you should try to get the month of birth;

- (f) some people have fixed ideas about their ages which are not correct. Old people especially tend to exaggerate their age. If the appearance of a person does not seem to fit the age or date of birth you are given, ask a few questions or use your Historical Calendar to get a correct assessment. As people get older they come to believe that they remember events, when what they really remember is being told about them. Use other methods to check very old people's statements;
- (g) when you have put down an age for each person in the household, have a look at them and how they are related to each other and see if they seem to make sense. If you have got a person with an age only 18 years younger than his real grandmother, either the child is too old or the grandmother too young. The gaps between children are often helpful - when there are many children of the same mother they are likely to be close together, but remember that there may be children in between who have died;
- (h) YOU MUST WRITE A DATE OF BIRTH FOR EVERY PERSON YOU ENUMERATE and you must use all the evidence available to make the dates as accurate as possible.

When the enumerator had satisfied himself that nobody who slept in the house the night before was missing from his listing pad, and that the relationships and ages made sense, he entered this information on to individual sheets, green for males and white for females. Instructions followed for the completion of the questionnaires. The sheet was designed so that the left-hand side (Questions "A" to "N") was completed for all people, the right-hand side (Questions "M" to "X") for those born in 1963 or earlier (15 years of age and over), and the questions on the back of the green sheets (Questions "AA" to "FF") for all females.

Vital Status of Mother and Father

This was a new question needed for the assessment of adult mortality.

40. "E" to "H" - REAL MOTHER AND FATHER of This Person

"E" If the person's "REAL" mother is alive anywhere in the world make a circle round the square if dead circle

Dead
Mate

Alive
Ola

"F" If the person is the first child born to his mother make a circle round the square is not the first child circle - if the person

Yes
Ao

No
Ikai

"G" If the person's REAL Mother is living in this household, write in the empty square the Person Number of the Mother which you have just written at the top right-hand corner of her Individual Sheet. If she is not in the household then write "O".

"H" If the person's "REAL" father is alive anywhere in the world make a circle round the square

Alive
Ola

- if dead circle

Dead
Mate

If the person does not know whether the Real mother or Real father is alive or dead, then write "NOT KNOWN" across both squares at "E" or "H".

During the edit, the mother's year of birth was written alongside the person number for mothers present in the household before the household pad was separated for sorting.

Marital Status

For the completion of the question on "marital status" the enumerator was given this definition of a 'married' person:

41. For the purposes of the Census it does not matter whether people have been married legally or even if they are too young to be married legally. If the community accepts a man and woman living together as "married" then record them as "married".

Persons whose husband or wife has died - "Widowed", or who have been divorced - "Divorced", should only be so recorded if they have not married again.

Religion

"Religion" was a voluntary question and provision was made to note those who did not wish to reply. Only one person was recorded as "refused or not stated".

Education

The Ministry of Education collects adequate data relating to children attending school. However, as those concerned with training, manpower and other aspects of policy wished to know the educational resources of the population, it was easier to collect information for all persons, whether attending or not, than to require the enumerator to select only those who had left school. A code sheet for highest educational level reached was used by each enumerator to avoid confusion over the many changes in class nomenclature which had been made during the lifetimes of the respondents.

Ethnic Origin

The instructions for ethnic origin were much the same as in 1973, with now the Gilbertese being known as I-Kiribati and Ellice Islanders as Tuvaluans.

"M" - Ethnic Origin

If the five printed descriptions do not apply then write a description of the person on the line at "Other". Ask the question and accept what people tell you.

"Tuvaluan" ... "1"	Means that the person is Tuvaluan on both his father's and mother's side.
"Tuv - Kir" ... "2"	Means that he is Tuvaluan from either the father or mother and I-Kiribati from the other side.
"Tuv - Other" ... "3"	Means that he is Tuvaluan from either the father or mother and has some other origin from the other side which is not Tuvaluan.
"I-Kiribati" ... "4"	Means those who have both mother and father of I-Kiribati origin or either the father or the mother I-Kiribati and some other origin from the other side which is not Tuvalu.
"European" ... "5"	Means those who originate from Europe, Australia, New Zealand, Canada, the U.S.A., South America, Russia and Israel.
"Other"	Here you write the description "Fijian", "Chinese", "Japanese", "Indian", "Maori" etc for all people who do not fit one of the types listed above.

Home Island

'Home Island' or 'Country' was defined:

45. "N" HOME ISLAND or COUNTRY

For all people who belong to Tuvalu by birth write their "home island", that is "Nanumea", "Nukulaelae" etc. For those who do not belong to Tuvalu by birth write their "home country", that is "England", "Fiji", "Kiribati", "USA", "Hong Kong" etc.

"Home Island" is a well - understood concept to Tuvaluans and normally means the island of the father, where most land may be expected to be inherited. Although it is true that with nearly one third of the population now resident on Funafuti, some persons have not lived for any length of time on their home island and some may not even have visited it, it was still considered to be more meaningful to record the island to which they felt they owed some allegiance as the "home island", rather than the actual "place of birth". Many people for example, are born on Banaba or Nauru with which they have no traditional link and where they live for only a limited period.

Land Ownership

In urban areas, the incidence of marriage between couples from different islands is greater than in non-urban areas. As a consequence, many of these people describe themselves as belonging to more than one island, and for this reason, it was decided that a question should be asked on land inheritance. A further motivation was the attention drawn in the Rural Socio-Economic Surveys of the Victoria University of Wellington, carried out between 1971 and 1974, to the problems of effective land improvement in outer islands when so many joint owners of undivided land were permanently absent.

47. "O" and "P" - WHERE THE PERSON OWNS LANDS

The expression "Owns Lands" includes all land holdings whether divided or not or registered or not, and also includes the "expectation" of inheriting land.

"Q" Ask if the person has land on his Home Island, if he has then circle the square

Yes
Ao

- if

he has no land or expectation of inheritance on his Home Island circle

No
Ikai

"P" Ask if he has lands on any other islands and if so then write the names of those islands in order of importance on the lines "1" to "4". If he claims land holdings on more than four other islands just write the word "More" near the letter "P", but do not worry about which islands or how many more there may be.

Islands of Residence

In 1973 a question was asked on "usual residence now" and "usual residence at the time of the previous census in 1968" to give a better picture of migration patterns. In 1968 contract recruitment for the Line Islands ceased; in 1979 the phosphate operation on Banaba closed down and recruitment has now stopped. It has long been acceptable for Tuvaluans to work away from home for limited periods to obtain cash for specific purposes. From 1980, short-term overseas employment of this type is only available in Nauru, and it was considered that more information should be gathered on this aspect of migration to work-islands. To this end the enquiry into places of previous residence was widened to include all work-migration targets - Tarawa, Banaba, Nauru, Line Islands, Kiribati and Overseas. The original intention was to record the number of years spent on each.

48. "Q" and "R" - ISLANDS OF RESIDENCE

"Island of Residence" means where a person actually lives for most of the time and has firmly established a home for himself and his family.

"Q" First circle the person's "Island of Residence" at the time of the Census. If it is not one of the six places named then write the name of the Island under the words "Other Gilbert Island". The circle is to be made around the outside of the square relating to that particular "Island of Residence" and inside the square you will write the number of years that it has been his island of residence. If less than one complete year write "0".

"R" Now ask whether the person has lived on any other place listed for longer than twelve months. Make a cross "X" inside the square which belong to any of the places which he names. You cannot write the name of another Tuvalu Island if you have already written on the bottom line his "Island of Residence Now".

This question produced more misunderstandings than any other. There was difficulty in grasping the distinction between 'place of enumeration', 'home island' and 'place of usual residence'. The fact that the question provided for the recording of only one "Other Tuvalu Island" (when people frequently reported residence on several), created confusion. A good deal of editing was necessary and although the broad picture of migration which has emerged from this question is no doubt valid, local deviations should be regarded with caution and some thought will be needed in this area at the next census (see Migration Chapter).

Activity

The instructions for this section are set out in full:

49. "S" to "X" - ACTIVITY THIS WEEK

This question is about the normal way of life of the person and is related to the week when you undertake your enumeration. Conditions, however, which are purely temporary should be disregarded. For instance a person who is in regular employment but happens to be on leave or sick at the time of the census will be recorded as "employment"; a person who has broken his leg will not be recorded as "Disabled" because undoubtedly he will resume his normal life when his bone has set.

"S" You have first to decide to which of the twelve types of activity the person belongs, underline it and make a circle round the number. For the purposes of the census the Types of Activity have these meanings:

"Village Life" - Every person who regularly engages in the normal daily activities of Tuvaluan traditional life is to be regarded as living a "village life" unless a major part of his day is spent in some other way. For instance most Island Council employees on outer islands engage in the normal activities of fishing, toddy cutting and, if it is their own island, babai cultivation: but a major part of their day is spent working for the Island Council so they will be listed as "employed".

"Home Duties Only" - All women are to be regarded as engaged in Village Life if they do not belong clearly to another type of activity. They will only be listed as "Home Duties" if for some reason they are obliged to confine themselves to purely household duties such as cooking, washing, cleaning and sewing and take no part in tending lands, fishing, making mats, thatch etc.

"Visitor" - These will generally be people who are difficult to place elsewhere because their visit is too short for them to become integrated into the household and too long for them to be regarded as active in some other way.

"Too Old" - These are the people who are no longer able to make any significant contribution to the productive life of the household and are dependent upon the more active members.

"Disabled" - These are people who have a permanent or long-lasting physical or mental handicap which prevents them from making any significant contribution to the household. They are dependants of the active members.

"Inmate" - In the Tuvalu these are persons serving prison sentences, persons in the Funafuti mental ward and long-stay patients in hospital. That is to say that a man who is still in receipt of full wages in respect of his employment while in hospital will be marked as "employed" and not as an "inmate".

"Student" - These are the people recorded under 'Education' as 'still attending full-time education'.

"Resting" - These are these people who do not appear to be making any significant contribution to the household although there does not appear to be any reason why they should not.

CASH WORKERS: The remaining four types '9' to '12' are those who are normally actively engaged in the cash economy in one of these ways:

"Employer" - Is someone who uses his own money to pay people who work for him regularly. If for instance he has a store and pays somebody to serve in it he is an employer, even if he also serves there himself and pays only one person wages. A man is not an employer, just because he is a Manager or has an important job-if he pays his workers with public money or somebody else's money he is an employee himself.

"Employee" - Is the most common type of worker for cash and he receives a regular wage in return for working a set number of hours daily or undertaking some regular task for the same employer, whether a private person, the Government, the Co-operative, a Mission, a Public Corporation or a foreign company.

"Works Alone" - Is someone who has his own business or workshop in which he works himself. He may have help from a member of the family, but he does not pay anybody regularly to help him in his work. Such a person in Tuvalu goes fishing to catch fish for selling to people outside his family, has a small shop, mends motor-cycles and bicycles, runs cinema shows or bakes bread every day. Do not include people who cut copra, that is part of "Village Life".

"Looking for Work" - Is a person who is not working in the week before the census, but is actually doing something in order to get work, whether he has ever had a job before or not.

Emphasis was placed during training upon the distinction between 'village life' and 'home duties' which caused difficulty in 1973 and, on the whole, the distinction appears to have been more clearly understood in 1979. Where there was misunderstanding, reference to the traditional activities recorded on the Household Sheet often permitted a correction to be made with certitude.

It was also explained during training that as only one activity could be marked, employment in the cash economy was to be given priority over any other and this appeared to be generally well understood.

The unemployed - "Looking for Work" - appeared to be answered as satisfactorily as can be expected in a work context where subsistence living is a major feature of life and employment is a desired, but not essential condition for living. It is true that the figures probably do not sufficiently reflect this desire, but it is difficult to find a definition which would give better results. A possible alternative would be to record all those who had worked previously and were not above retirement age or disabled, but this, too, has unrealistic elements.

Occupation

The remaining activity questions related only to the employed or previously employed and emphasis was on obtaining sufficient information to enable coding at Census Headquarters to be meaningful:

"T" OCCUPATION

Here you write the sort of work the person does, such as "builders", "doctor", "housegirl", "retail store manager". Try to avoid descriptions like "office worker" or "clerk": try to get more information and write "accounts clerk", "typist", "Court clerk", "office cleaner". Similarly do not write "mechanic", write "motor mechanic", "ships greaser", "motor-cycle mechanic", "welder" etc.

If you have marked the person in Type "12" "Looking for Work" you will complete Question "T" and those which follow in respect of the work which he did before: not the work which he may hope to get.

If a person "Looking for Work" has never been employed before write at "T" the word "None". Only for such people it is permissible to write inside brackets the work they are looking for e.g. "NONE (Radio Operator)".

You do not answer any more Questions for these persons who have never worked before.

The number of years worked in that occupation was next recorded, less than 12 months being written as "0". It was hoped that this measure of "experience", combined with information regarding "training", would produce a picture of the level of competence of the work-force in the absence of formal apprenticeships and trade testing. It did not, however, prove possible to devise a formula which could be applied to more than a small number of occupations and it remains to be seen whether the information in the form in which it was collected, proves useful to those who asked for it.

"V" and "W" TRAINING for Such Work

These questions also relate to the sort of work you have described as his "Occupation". "Training" means a full-time course of instruction lasting not less than three months. It does not mean training "on the job" unless by a formal agreement as for instance "Cadets" on our own ships, or "Apprentices" trained by the Phosphate Companies, or "Nurses" trained at Bikenibeu or Fiji.

"V" You are required to circle one of the three squares indicating that the person has had no Training - "None" in the work which he is now doing; or he has had a training

course of three months or more locally e.g. Central Hospital, M.T.S., or he has had training of three months or more overseas - "Overseas" e.g. Derrick Institute, Torquay Admin. Course in U.K., Teacher Training in England, Australia, etc.

If the person has had training both locally and overseas both square should be circled.

"W" In the square write the number of months or years that the training lasted. If there has been more than one course of training and all relate to the present occupation they should be added together and the round total written in the square.

Industry

The enumerator was required simply to write the number of the employer or place where the work was performed:

"X" INDUSTRY

Here you write a description of the place where the man does his work. If you have written that occupation as "driver", here under "INDUSTRY" you will write "Private Bus", "Island Council Tractor", "Ambulance", "Water Bowser", or for "Steward" you might write "Vaiaku Langi Hotel", "Nivanga", "Overseas Ships", "Private Cafe", for "Cashier" you might write "Treasury", "Federation", "Public Utilities Board", "Island Council".

Female Fertility

52.A. FEMALE FERTILITY BLOCK

"AA" CHILDREN EVER BORN ALIVE

The number to be written in the square is all those children to whom this woman has given birth alive in her whole life, whether they are living with her in this household or not, whether they are still alive or not, or whether they are children from her present husband or not, or whether she is divorced, widowed or never married. It does not include adopted or any other children in her household or her husband's children by another wife.

A child is regarded as having been born "alive" if, when it is outside the body of the mother, the child breathes or shows any other evidence of life, such as beating of the heart, or definite movement, whether the umbilical cord has been cut or not. Every child so born must be included in this total. Pay attention to wide gaps between children in an otherwise regular pattern. A child that died early may have been overlooked, but it could equally well have been a miscarriage or perhaps the husband was away working.

If the woman never had a child born alive write "0" in the square and draw a diagonal line through the rest of the Fertility Block. You can do this without asking questions for very young girls, but do not jump to the conclusion that because a girl is not married or is young

in years, or because you have not listed a son or daughter as present in the household, that she has never had a child. Some girls have children at a very young age: 211 women in the last census stated that they had a child before they were fifteen years of age, a few as young as 11 or 12. Ask the question in a way which will not give offence.

FOR THOSE WHO HAVE GIVEN BIRTH TO AT LEAST ONE CHILD CONTINUE WITH THE QUESTIONS IN THIS BLOCK.

"BB" CHILDREN ALIVE ON CENSUS NIGHT

Write the number of those natural children recorded in Question "AA" who are still alive. It does not matter how old they are or where they are living; if they are alive they are to be included in this square.

"CC" and "DD" FIRST AND LAST CHILD'S DATE OF BIRTH

At "CC" you write the date of birth of the first child ever born to the woman alive and at "DD" you write the date of birth of the last child ever born to her alive. If there is only one child these dates will of course be the same, but they must both be completed or you can write "as above", but do not leave it blank. The dates will also be the same if there are two children and they happen to be "twins". If they are, just write the word "twins" alongside so that the checkers know that you did not make a mistake in writing the same date twice.

"EE" and "FF" LAST CHILD'S SEX AND IF ALIVE

This question relates to the last child born of which you have put the date of birth in at "DD". Make circles round the squares either

or

Dead
Mate

Alive
Ola

and round either

Male
Tangata

or

Female
Fafine

whichever are correct. If there is only one child then the First Child is also the Last Child and you must fill in "EE" and "FF" for that child.

"GG" AGE OF MOTHER AT BIRTH OF FIRST CHILD

You do not have to ask this question, you simply subtract the year of birth of the mother which you have written at "D" on the front of the Sheet from the year of birth of the First Child which you have written at "CC".

Write this figure in the square and think whether it makes good sense. If the figure is less than 14 or more than 40 you must ask the woman whether she was very young or rather old when she had her first child. This she will remember and you may have written the ages correctly. If the age of the mother is impossible, for example 5 years or 60 years, do not make changes without asking further questions: you must find out whether it is the date of birth of the mother or that of the child which is wrong and by how many years it is wrong. It does not help the Census to have information which makes sense unless it is also TRUE.

The Household Sheet

The manual continued with instructions for completion of the 'Household Sheet'. Enumerators were not required to fill in the living/sleeping area of the house as this measurement had been taken at the time of numbering by the Supervisors. They were supplied with tape-measures and measurements were taken to the nearest half-foot. In traditional houses, the area enclosed by the supporting uprights was measured and in non-traditional houses allowance was made for the thickness of the walls by taking the measurements outside, but slightly in from the ends of the structure. These measurements were recorded on a House Numbering and Measurement Pad on which the house number, the name of the occupier and the measurements were recorded. In practice these were not transferred to the Household Sheets because it was found more convenient to write the number of occupants on the Measurement Pad and work from there.

House Status and Structure

- (a) Status: Underline and make a circle round the number which applies. No. "1" is for houses which are owned by the occupier and are built on land to which the occupier has some rights. No. "2" is for houses owned by the occupier, but are built on land which belongs to somebody else. No. "3" is for people who are living in a house which does not belong to them, but for which they make no payment. No. "4" is for people who are living in a house for which they make a regular payment of money as rent.
- (b) Roof: Underline and circle the number of the material which provides the main covering for the roof. If a large part of the house has a different sort of roofing, both may be circled. If you circle No. "4" other, write a description underneath.
- (c) Walls: Underline and circle the number of the material which is used for walls, if there are any.
- (d) Floor: Underline and circle the number of the material of which most of the floor is made. If half the house has one sort of floor and the other half something different, circle both.

Kitchen and Bathroom

The enumerator was required to indicate only whether the kitchen and bathroom were of traditional or non-traditional type or write "None". The information thus collected did not appear to be very informative and is not published.

Services

60. In each of the four types of service you make a circle round the best type of facility available to the household:

Toilets: Only circle one of the squares.

Water: Houses may have both rain-water catchment from the roof into a tank and also water delivered by tanker - as on Funafuti. Make a circle round both squares. Similarly houses may get some water from community stand-pipes or taps and also use wells. "Own Tap" means that there is running water provided to each house, as on Christmas Island.

If you put a circle round "Well/Vaikeli" write the time in minutes which it takes a person to walk from the well to the house (one way only) both when there are normal rains and - if the well is one which dries up or becomes salty in time of drought - when they have to go to a good well further away. If the well is within 5 minutes of the house, write "0".

Cooking: Make a circle round as many types of cooking as are in regular use in the house.

Lighting: Make a circle round the best type of lighting in regular use.

That part of the question which was designed to reveal whether there was a water problem in drought conditions, by recording the distance from the house to the well, failed to produce any significant data and is not published.

Economic Activity

The remaining questions on the Household Sheet were designed to monitor each household's involvement in the subsistence and cash sectors of the economy.

Traditional Life

61. The purpose of this question is to record from census to census any change in the way of living of the people in the Tuvalu Islands by finding out how many persons in each household still engage in activities which traditionally continue daily in an ordinary village.

62. You are required to underline the activity if it is carried on fairly regularly in the household at all and to write in the columns the number of persons, males and females separately, who engage in that particular activity.

63. Be careful to write clearly in the correct space. At the top of each column under the words 'Total/Aofaki' enter the number of persons who engage in one or more of the activities which you have marked.

64. Do not make marks where nobody engages in a particular activity, but if nobody at all in the household engages in any of the listed activities then write "N O N E" across the whole section in big letters.

The range of activities was divided into four broad categories: "Fishing", "Lands", "Home", and "Handcraft". These categories were derived from those which occupied the most time in a normal traditional island life, according to the findings of the Rural Socio-Economic Surveys of the Victoria University of Wellington. It was anticipated that the question would reveal in general terms the degree to which these activities continue to play a significant part in family life. A further question was incorporated in an attempt to establish the number of persons of each sex engaged in each activity.

Capital Goods

65. The purpose of this question is to find out how many families are buying and owning things which cost a lot of money, most imported from overseas, although this does not exactly apply to canoes and fish nets which are included for comparison.

66. If there is such an article in use in the household at the time of your visit, underline the name of the item and put the number of such items in good order and actually available for use. The second column is for items which are temporarily out of use, but are expected to be in use again within a month or two. Do not list items which cannot be repaired.

Cash Input

The final question was designed to examine the main sources of cash income for each household:

67. This is the last question which you have to ask in the household and is the one which people may feel doubtful about giving you good information. You must explain that you are not asking "how much" money comes into the house, but only where it comes from. There is no question of taxes or anything of that sort. Nobody will know to whom the information refers, it will just be put into a table of figures. But it is important for the government to know how households provide themselves with the cash which nearly every household needs in these days to supplement its traditional subsistence way of life.

68. Fill in the information in this way:

Wages/Peofunga: This is money received by those who have a paid job on any sort of regular basis, whether full-time or part-time. Write the number of men and women in the household separately who receive wages.

Own Business/Tau Pisinisi Totino: Here you write the number of men and women who bring money into the household by some form of sale or service of their own such as running a trade store, a bus, a cinema, making furniture or repairing motor-cycles etc.

Pension/Penitini: Here you enter the number of persons who draw a regular monthly pension in respect of their former employment and pay at least part of it into the household.

Produce etc./Pisinesi Foliki: This is for any other sort of income and you must write on the line what it is and in the column the number of persons who are engaged in producing that income. "Produce" relates to anything which people grow on their own lands or make with their own work such as copra, fish, chickens, mats, baskets, selling cooked food or bread or doughnuts (or tufanga in a manner which does not amount to a fixed business. You can also include in this space things like income from leases of land.

Remittances/Telemo: On the lines provided you write where the money comes from: 'Overseas Seaman', 'Nauru', 'Banaba', 'Australia'. Then alongside you indicate with a circle whether the remittances come "Regularly/Taimi Katoa", every month or four times a year etc. or whether they are "Occasional/Seasea Loa", now and again at odd times or when asked for: but only include those which are of some importance in helping the household.

Instructions for completing the routines, making last checks and asking the people in the household to make a particular effort to remember who slept in the house on Census Night rounded off the first enumeration. Instructions for the second enumeration were as follows:

The Second Enumeration

76. The Second Visit which you make to every household in your Enumeration Area is to be made as soon as possible after Census Night, before people forget exactly who was sleeping in the house that night. Your purpose is to record the exact state of each Household at mid-night on 27/28th May: that all the people whom you wrote down on your First Visit were in fact still sleeping there and that the details which you recorded for them are still correct; to record also the newly born and fresh arrivals.

77. Therefore you should start early on Census Day. Follow the same route as you did on your first enumeration. Go to the first House in your E.A. and check the number on the house to make sure. Take out your Record Book and enter the Date of the Second Visit on the correct line for this Household. Take out the sheets for that Household, enter the date on the Household Sheet and then sit down with the Head of the Household or some other responsible adult who belongs there.

Checking the Household

78. Now turn to the first Individual Sheet, read out the name and ask if that person actually slept in the house the previous night - Census Night. If he did sleep there make a "tick" in the circle at the top of the Sheet, "Z".

79. If a person did not sleep in the household draw two diagonal lines right across the sheet and write the reason for cancellation: "Died 18.5.79", "Gone to Hospital", "Lost at Sea" etc. If the person has gone away to another house make a careful note of where he has gone with as many details as possible, especially the name of the person in whose house he is said to be living. Leave his cancelled sheet attached to the Household so that this can be cross-checked at Census Headquarters or by your Supervisor.

80. Only if the person is said to have gone to another house in your own E.A. you need not cancel his sheet. Transfer it to the plastic bag for the other house where he is said to have gone and make a

note against his name on your Listing Pad of what you have done. When you get to the other house you must ask about that person and if it is confirmed that he slept there on Census Night, add him to that household. If he was not there then you must make enquires about where he has gone and if necessary 'Cancel' in the manner explained above.

81. But remember that if a person was only temporarily away during the night, if for instance he was out fishing or on night work AND DID NOT SLEEP IN ANY OTHER HOUSE WHERE HE WAS ENUMERATED he may remain in this Household. Do not cancel anybody who died after Census Night.

New Arrivals

82. When you have gone through every Individual Sheet in this way you will enquire carefully whether any other persons slept in the house on Census Night: whether perhaps new baby has been born or a child adopted or returned from a visit to a relative since your last visit, or some new visitor is there or perhaps someone who was forgotten on the First Visit. If there are any such persons, you must make out fresh Individual Sheets for them complete in all Sections. Do not, however, include a baby born after Census Night.

Other Changes

83. A new birth in the household or the death of a woman's "last born child" before Census Night will make it necessary to alter the information in the Fertility Block of the mother. A death may alter the Marital Status of the husband or wife from "married" to "widowed". Some other member of the household may now be in regular work.

84. You must ask about these things and make the necessary changes. But if the "Head" has died or gone away do not look for a new "head" and start changing all the relationships. The pattern of inter-relationship is still correct even if he is no longer there.

85. Now is the time for a final check, so turn back through the sheets one by one making sure for the last time that there are no blanks where there should be answers. All the time have this question in your own mind: "DOES THIS INFORMATION ALL FIT TOGETHER IN A REASONABLE WAY?"

The manual concluded with instructions for completing the Record Book, checking 'vacant' houses, searching for unenumerated households and assisting the Supervisor in his final check of all questionnaires.

BIBLIOGRAPHY

Unpublished Sources

- SSI South Sea Journals, London Missionary Society
- SSL South Sea Letters, London Missionary Society
- SSR South Sea Records, London Missionary Society

The abovementioned refer to the most important source of population estimates for the period before 1900, i.e. the journals of personnel associated with the London Missionary Society. They are identified in the text by surname of missionary, year, and journal number. The LMS journals are housed in the School of Oriental and African Studies, London, but we sighted them on microfilm in the Mitchell Library, Sydney, and in the National Library of Australia, Canberra. Most of those referred to in Chapter 1 are to be found in the South Sea Journals (SSJ) series. Some, however, have been misplaced among the South Sea Records (SSR) and the South Sea Letters (SSL). We refer to the actual location of the journal by these labels in the text.

Miscellaneous documents sighted in the Mitchell Library, Sydney, are referenced by catalogue number and the prefix 'ML'.

In addition to these sources three manuscript and printed series are mentioned in the tables and text of Chapter 1. These are:

- CO 225 - Colonial Office, Original Correspondence, Western Pacific (consulted on microfilm).
- RNAS - Royal Navy Australia Station (held in the National Archives of New Zealand).
- WPHC 4 - Records of the Western Pacific High Commission, Series 4, Inwards Correspondence, General (consulted on microfilm at the former Western Pacific Archives in Suva, now housed in London, and the National Library of Australia. These contain the 'island reports' not otherwise referenced).

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COMMENT ON BASIC TABLES

In an early stage of the hand-processing, the translation of date of birth into year of age was done simply by subtracting the year of birth from the year of the census without taking into account of the fact that the Census was in May. This method was of little consequence in the tables which referred to all ages or to ages only over 15 years. (These latter tables therefore, in fact, refer to people aged over 14 years and five months rather than over exactly 15 years.) Each table so produced is marked with an asterisk (*), with a footnote reminding the reader that the ages are unadjusted. However, for the demographic analysis, this method of coding of ages was considered unsatisfactory and all the relevant tabulations were re-done with the now correctly coded ages. Similarly the tabulations by single year of age refer to the same corrected ages (Tables 2, 3, 6). It is to be regretted that the coded ages used vary between the two groups of tables but in the circumstances of hand-processing, this was unavoidable.

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TABLE 1

TOTAL POPULATION BY ISLAND OF ENUMERATION, ETHNIC ORIGIN AND SEX, ALSO SHOWING AREA AND POPULATION DENSITY BY ISLAND

Island	Occupied Households	Tuvaluan (Polynesian)		Other Pacific (Micronesian etc.)		Non-Pacific (European etc.)		Total Population		Percentage of Total Population	Area in Acres	Number of Persons (b)		
		M	F	P	M	F	P	M	F			Per Acre	Per Sq. Km	Per Sq. Mile
Nanumea	140	381	457	838	1	5	6	-	-	11.5	956	0.883	218	565
Nanunaga	103	260	342	602	-	2	2	1	1	8.2	687	0.881	218	564
Niutao	131	365	486	851	4	11	15	-	-	11.8	625	1.386	342	887
Nui	87	279	301	580	6	15	21	2	2	8.2	699	0.863	213	552
Vaitupu	183	554	692	1246	2	8	10	9	8	17.3	1385	0.919	227	588
Nukufetau	107	261	355	616	1	9	10	-	-	8.5	738	0.848	210	543
Funafuti	306	1041	937	1978	39	45	84	32	26	28.9	689	3.077	760	1969
Nukulaelae	50	160	184	344	-	3	3	160	187	4.7	449	0.773	191	495
Niutakita	9	39	25	64	-	1	1	39	26	0.9	104	0.625	154	400
TUVALU TOTAL ENUMERATED IN CENSUS	1116	3340	3779	7119	53	99	152	44	34	78	6332	1.161	287	743
Nauru	134	438	276	714	1	7	8	-	-	-	-	-	-	-
Overseas (a)	-	475	184	659	-	-	-	475	184	659	-	-	-	-
De Jure TOTAL (approx.)	1250	4253	4239	8492	54	106	160	44	34	78	-	-	-	-

(a) These persons were not enumerated and are derived from the records of seamen serving in foreign ships (255 males), students (45 males and 30 females), Tuvaluans in Banaba derived from 1978 Kiribati Census data (169 males and 149 females) and other Tuvaluans (6 males and 5 females) known to be temporarily out of the country on census night. It is not comprehensive and does not include those Tuvaluans in other Pacific territories who appear to have settled there on a permanent basis.

(b) Conversion: acres x 247.1 = sq. kms x 2.59 = sq. miles

INDIGENOUS POPULATION BY VILLAGE OF ENUMERATION AND NON-INDIGENOUS POPULATION BY VILLAGE OF ENUMERATION BY SINGLE YEARS OF AGE 0-19 AND FIVE YEAR AGE GROUPS

	AGE																				TOTAL
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
NANUMEA																					
Hauma																					
M	3	2	1	3	0	1	6	5	2	3	3	5	3	5	3	6	2	3	3	5	
F	3	3	1	3	4	3	0	0	3	3	1	4	1	5	3	1	7	3	3	0	
T	6	5	2	6	4	4	6	5	5	6	4	9	4	10	6	7	9	6	6	5	
Haumaefa and Matagi																					
M	3	2	5	2	3	3	2	3	3	5	3	8	5	6	5	5	1	4	2	5	
F	3	4	6	3	3	2	3	2	3	3	2	3	1	3	1	3	6	3	3	5	
T	6	6	11	5	6	5	5	5	6	8	5	11	6	9	6	4	10	5	8		
Iolua																					
M	3	4	4	8	3	0	2	3	2	7	2	3	1	5	9	4	3	1	1	4	
F	3	3	1	1	1	6	1	2	1	4	5	3	4	3	0	5	3	5	6	5	
T	6	7	5	9	4	6	3	5	3	11	7	6	5	8	9	9	6	7	9		
Lakena																					
M	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	
F	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	
T	-	1	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	1	-	-	
TOTAL NANUMEA																					
M	9	8	10	13	6	4	10	11	7	15	8	17	9	16	17	15	6	8	6	14	
F	9	11	8	7	8	11	4	4	7	10	8	10	6	11	4	8	13	14	13	8	
T	18	19	18	20	14	15	14	15	14	25	16	27	15	27	21	23	19	22	19	22	
NANUMAGA																					
Tokelau																					
M	3	7	3	2	2	3	4	2	4	2	7	7	2	5	5	3	3	2	1	2	
F	3	1	6	4	7	1	6	1	4	6	3	4	3	7	5	2	4	4	5	6	
T	6	8	9	6	9	4	10	3	8	8	10	11	5	12	10	5	7	6	6	8	
Tonga																					
M	3	3	1	5	5	4	3	2	2	4	4	4	2	6	9	8	5	3	4	2	
F	8	3	3	7	4	6	3	3	2	1	7	2	1	1	5	6	2	2	3	5	
T	11	6	4	12	9	10	6	5	4	5	11	6	3	7	14	14	7	5	7	7	
TOTAL NANUMAGA																					
M	6	10	4	7	7	7	7	4	6	6	11	11	4	11	14	11	8	5	5	4	
F	11	4	9	11	11	7	9	4	6	7	10	6	4	8	10	8	6	6	8	11	
T	17	14	13	18	18	14	16	8	12	13	21	17	8	19	24	19	14	11	13	15	
</																					

* also 1 non-indigenous male aged 31

TABLE 2

INDIGENOUS POPULATION BY VILLAGE OF ENUMERATION AND NON-INDIGENOUS POPULATION BY
ISLAND OF ENUMERATION BY SINGLE YEARS OF AGE 0-19 AND FIVE YEAR AGE GROUPS

		AGE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	0	4	5	9	10	14	19	20	24	29	34	39	44	49	54	59	64	69	74	79	84	89	94	99	104	109	114	119	124	129	134	139	144	149	154	159	164	169	174	179	184	189	194	199	204	209	214	219	224	229	234	239	244	249	254	259	264	269	274	279	284	289	294	299	304	309	314	319	324	329	334	339	344	349	354	359	364	369	374	379	384	389	394	399	404	409	414	419	424	429	434	439	444	449	454	459	464	469	474	479	484	489	494	499	504	509	514	519	524	529	534	539	544	549	554	559	564	569	574	579	584	589	594	599	604	609	614	619	624	629	634	639	644	649	654	659	664	669	674	679	684	689	694	699	704	709	714	719	724	729	734	739	744	749	754	759	764	769	774	779	784	789	794	799	804	809	814	819	824	829	834	839	844	849	854	859	864	869	874	879	884	889	894	899	904	909	914	919	924	929	934	939	944	949	954	959	964	969	974	979	984	989	994	999	1004	1009	1014	1019	1024	1029	1034	1039	1044	1049	1054	1059	1064	1069	1074	1079	1084	1089	1094	1099	1104	1109	1114	1119	1124	1129	1134	1139	1144	1149	1154	1159	1164	1169	1174	1179	1184	1189	1194	1199	1204	1209	1214	1219	1224	1229	1234	1239	1244	1249	1254	1259	1264	1269	1274	1279	1284	1289	1294	1299	1304	1309	1314	1319	1324	1329	1334	1339	1344	1349	1354	1359	1364	1369	1374	1379	1384	1389	1394	1399	1404	1409	1414	1419	1424	1429	1434	1439	1444	1449	1454	1459	1464	1469	1474	1479	1484	1489	1494	1499	1504	1509	1514	1519	1524	1529	1534	1539	1544	1549	1554	1559	1564	1569	1574	1579	1584	1589	1594	1599	1604	1609	1614	1619	1624	1629	1634	1639	1644	1649	1654	1659	1664	1669	1674	1679	1684	1689	1694	1699	1704	1709	1714	1719	1724	1729	1734	1739	1744	1749	1754	1759	1764	1769	1774	1779	1784	1789	1794	1799	1804	1809	1814	1819	1824	1829	1834	1839	1844	1849	1854	1859	1864	1869	1874	1879	1884	1889	1894	1899	1904	1909	1914	1919	1924	1929	1934	1939	1944	1949	1954	1959	1964	1969	1974	1979	1984	1989	1994	1999	2004	2009	2014	2019	2024	2029	2034	2039	2044	2049	2054	2059	2064	2069	2074	2079	2084	2089	2094	2099	2104	2109	2114	2119	2124	2129	2134	2139	2144	2149	2154	2159	2164	2169	2174	2179	2184	2189	2194	2199	2204	2209	2214	2219	2224	2229	2234	2239	2244	2249	2254	2259	2264	2269	2274	2279	2284	2289	2294	2299	2304	2309	2314	2319	2324	2329	2334	2339	2344	2349	2354	2359	2364	2369	2374	2379	2384	2389	2394	2399	2404	2409	2414	2419	2424	2429	2434	2439	2444	2449	2454	2459	2464	2469	2474	2479	2484	2489	2494	2499	2504	2509	2514	2519	2524	2529	2534	2539	2544	2549	2554	2559	2564	2569	2574	2579	2584	2589	2594	2599	2604	2609	2614	2619	2624	2629	2634	2639	2644	2649	2654	2659	2664	2669	2674	2679	2684	2689	2694	2699	2704	2709	2714	2719	2724	2729	2734	2739	2744	2749	2754	2759	2764	2769	2774	2779	2784	2789	2794	2799	2804	2809	2814	2819	2824	2829	2834	2839	2844	2849	2854	2859	2864	2869	2874	2879	2884	2889	2894	2899	2904	2909	2914	2919	2924	2929	2934	2939	2944	2949	2954	2959	2964	2969	2974	2979	2984	2989	2994	2999	3004	3009	3014	3019	3024	3029	3034	3039	3044	3049	3054	3059	3064	3069	3074	3079	3084	3089	3094	3099	3104	3109	3114	3119	3124	3129	3134	3139	3144	3149	3154	3159	3164	3169	3174	3179	3184	3189	3194	3199	3204	3209	3214	3219	3224	3229	3234	3239	3244	3249	3254	3259	3264	3269	3274	3279	3284	3289	3294	3299	3304	3309	3314	3319	3324	3329	3334	3339	3344	3349	3354	3359	3364	3369	3374	3379	3384	3389	3394	3399	3404	3409	3414	3419	3424	3429	3434	3439	3444	3449	3454	3459	3464	3469	3474	3479	3484	3489	3494	3499	3504	3509	3514	3519	3524	3529	3534	3539	3544	3549	3554	3559	3564	3569	3574	3579	3584	3589	3594	3599	3604	3609	3614	3619	3624	3629	3634	3639	3644	3649	3654	3659	3664	3669	3674	3679	3684	3689	3694	3699	3704	3709	3714	3719	3724	3729	3734	3739	3744	3749	3754	3759	3764	3769	3774	3779	3784	3789	3794	3799	3804	3809	3814	3819	3824	3829	3834	3839	3844	3849	3854	3859	3864	3869	3874	3879	3884	3889	3894	3899	3904	3909	3914	3919	3924	3929	3934	3939	3944	3949	3954	3959	3964	3969	3974	3979	3984	3989	3994	3999	4004	4009	4014	4019	4024	4029	4034	4039	4044	4049	4054	4059	4064	4069	4074	4079	4084	4089	4094	4099	4104	4109	4114	4119	4124	4129	4134	4139	4144	4149	4154	4159	4164	4169	4174	4179	4184	4189	4194	4199	4204	4209	4214	4219	4224	4229	4234	4239	4244	4249	4254	4259	4264	4269	4274	4279	4284	4289	4294	4299	4304	4309	4314	4319	4324	4329	4334	4339	4344	4349	4354	4359	4364	4369	4374	4379	4384	4389	4394	4399	4404	4409	4414	4419	4424	4429	4434	4439	4444	4449	4454	4459	4464	4469	4474	4479	4484	4489	4494	4499	4504	4509	4514	4519	4524	4529	4534	4539	4544	4549	4554	4559	4564	4569	4574	4579	4584	4589	4594	4599	4604	4609	4614	4619	4624	4629	4634	4639	4644	4649	4654	4659	4664	4669	4674	4679	4684	4689	4694	4699	4704	4709	4714	4719	4724	4729	4734	4739	4744	4749	4754	4759	4764	4769	4774	4779	4784	4789	4794	4799	4804	4809	4814	4819	4824	4829	4834	4839	4844	4849	4854	4859	4864	4869	4874	4879	4884	4889	4894	4899	4904	4909	4914	4919	4924	4929	4934	4939	4944	4949	4954	4959	4964	4969	4974	4979	4984	4989	4994	4999	5004	5009	5014	5019	5024	5029	5034	5039	5044	5049	5054	5059	5064	5069	5074	5079	5084	5089	5094	5099	5104	5109	5114	5119	5124	5129	5134	5139	5144	5149	5154	5159	5164	5169	5174	5179	5184	5189	5194	5199	5204	5209	5214	5219	5224	5229	5234	5239	5244	5249	5254	5259	5264	5269	5274	5279	5284	5289	5294	5299	5304	5309	5314	5319	5324	5329	5334	5339	5344	5349	5354	5359	5364	5369	5374	5379	5384	5389	5394	5399	5404	5409	5414	5419	5424	5429	5434	5439	5444	5449	5454	5459	5464	5469	5474	5479	5484	5489	5494	5499	5504	5509	5514	5519	5524	5529	5534	5539	5544	5549	5554	5559	5564	5569	5574	5579	5584	5589	5594	5599	5604	5609	5614	5619	5624	5629	5634	5639	5644	5649	5654	5659	5664	5669	5674	5679	5684	5689	5694	5699	5704	5709	5714	5719	5724	5729	5734	5739	5744	5749	5754	5759	5764	5769	5774	5779	5784	5789	5794	5799	5804	5809	5814	5819	5824	5829	5834	5839	5844	5849	5854	5859	5864	5869	5874	5879	5884	5889	5894	5899	5904	5909	5914	5919	5924	5929	5934	5939	5944	5949	5954	5959	5964	5969	5974	5979	5984	5989	5994	5999	6004	6009	6014	6019	6024	6029	6034	6039	6044	6049	6054	6059	6064	6069	6074	6079	6084	6089	6094	6099	6104	6109	6114	6119	6124	6129	6134	6139	6144	6149	6154	6159	6164	6169	6174	6179	6184	6189	6194	6199	6204	6209	6214	6219	6224	6229	6234	6239	6244	6249	6254	6259	6264	6269	6274	6279	6284	6289	6294	6299	6304	6309	6314	6319	6324	6329	6334	6339	6344	6349	6354	6359	6364	6369	6374	6379	6384	6389	6394	6399	6404	6409	6414	6419	6424	6429	6434	6439	6444	6449	6454	6459	6464	6469	6474	6479	6484	6489	6494	6499	6504	6509	6514	6519	6524	6529	6534	6539	6544	6549	6554	6559	6564	6569	6574	6579	6584	6589	6594	6599	6604	6609	6614	6619	6624	6629	6634	6639	6644	6649	6654	6659	6664	6669	6674	6679	6684	6689	6694	6699	6704	6709	6714	6719	6724	6729	6734	6739	6744	6749	6754	6759	6764	6769	6774	6779	6784	6789	6794	6799	6804	6809	6814	6819	6824	6829	6834	6839	6844	6849	6854	6859	6864	6869	6874	6879	6884	6889	6894

TABLE 2

INDIGENOUS POPULATION BY VILLAGE OF ENUMERATION AND NON-INDIGENOUS POPULATION BY
ISLAND OF ENUMERATION BY SINGLE YEARS OF AGE 0-19 AND FIVE YEAR AGE GROUPS

		AGE																				TOTAL	
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19		0-14
VAITUPU (Continued)																							
Tumaseu																							
M	5	5	3	2	4	4	4	1	2	4	5	1	1	2	7	9	5	1	1	2			
F	1	3	7	1	2	4	4	4	5	4	5	2	5	1	5	3	6	6	5	4			
T	6	8	10	3	6	8	8	5	7	8	10	3	6	3	12	12	11	7	6	6			
Motufoua and Eliseifou																							
M	2	1	2	1	0	1	1	2	1	0	2	17	30	16	14	6	4	10	7	7			
F	1	0	0	2	0	2	1	0	1	1	2	21	36	32	26	19	11	8	6	4			
T	3	1	2	3	0	2	2	2	2	1	4	38	66	48	40	25	15	18	13	11			
Muli and Alae																							
M	1	1	0	3	2	2	2	2	5	4	2	3	0	3	3	4	1	2	4	1			
F	1	2	1	0	3	1	4	2	0	2	3	2	3	2	2	3	6	5	2	3			
T	2	3	1	3	5	3	6	4	5	6	5	5	3	5	5	7	7	7	6	4			
TOTAL VAITUPU																							
M	14	14	11	10	10	9	16	11	10	15	28	37	24	25	27	18	19	17	18				
F	7	11	7	8	12	11	9	8	12	15	27	44	42	34	26	32	23	23	16				
T	21	21	22	17	18	21	20	25	19	22	30	55	81	66	59	53	50	42	40	34			
VAITUPU NON-INDIGENOUS																							
M	-	-	-	2	-	2	-	1	-	-	-	-	-	-	-	-	-	-	-	-			
F	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
T	-	-	-	1	2	1	2	-	1	-	-	-	-	-	-	-	-	-	-	-			
NUKUFETAU																							
Tianamo																							
M	4	4	5	2	6	0	2	2	4	6	1	4	7	1	4	5	2	2	4	2			
F	2	1	2	3	5	2	6	3	3	7	6	2	2	5	5	3	3	7	4				
T	6	5	7	5	11	2	8	5	7	13	7	6	9	6	9	8	5	5	11	6			
Savave																							
M	2	6	4	1	2	4	5	6	6	4	3	2	5	6	0	7	1	2	5	2			
F	3	1	1	4	3	2	1	2	1	4	6	8	4	4	5	4	4	6	10	6			
T	5	7	5	5	6	6	6	8	7	8	9	10	9	10	5	11	5	8	15	8			
TOTAL NUKUFETAU																							
M	6	10	9	3	8	4	7	8	10	10	4	6	12	7	4	12	3	4	9	4			
F	5	2	3	7	8	4	7	5	4	11	12	10	6	9	10	7	7	9	17	10			
T	11	12	12	10	16	8	14	13	14	21	16	16	18	16	14	19	10	13	26	14			

TABLE 2

INDIGENOUS POPULATION BY VILLAGE OF ENUMERATION AND NON-INDIGENOUS POPULATION BY
ISLAND OF ENUMERATION BY SINGLE YEARS OF AGE 0-19 AND FIVE YEAR AGE GROUPS

		AGE																				TOTAL																		
		0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	0-14	15+	TOTAL																
FUNAFUTI																																								
Vaiaku																																								
M	6	2	2	2	2	4	3	4	4	6	7	2	3	3	1	7	8	7	6	7	14	21	16	35	28	17	17	18	9	5	9	6	6	4	2	-	51	156	207	
F	6	2	3	2	3	3	1	6	3	2	1	4	2	1	1	4	3	4	4	4	12	15	9	19	19	14	11	15	6	5	4	6	2	2	1	1	36	104	140	
T	8	5	4	4	5	7	4	10	7	8	6	5	4	2	11	11	11	10	11	26	36	25	54	47	31	28	33	15	10	13	12	8	6	2	1	87	260	347		
Alapi																																								
M	16	9	6	11	4	4	9	6	2	13	5	12	7	9	7	13	6	13	14	16	46	34	40	62	49	39	18	16	15	21	16	18	4	8	3	5	120	274	394	
F	7	8	5	10	6	9	9	12	8	9	4	7	2	11	5	12	13	12	13	15	36	47	29	65	53	41	24	15	27	25	22	12	13	6	3	7	112	313	425	
T	23	17	11	21	10	13	18	18	10	22	9	19	9	20	12	25	19	25	27	31	82	81	69	127	102	80	42	31	42	46	38	30	17	14	6	12	232	587	819	
Senala																																								
M	6	3	4	6	3	3	1	4	1	2	5	2	3	2	1	1	9	8	2	4	22	11	13	24	21	13	17	7	7	4	9	9	5	1	1	-	46	118	164	
F	2	3	6	1	3	2	3	2	0	2	1	4	1	1	2	1	1	8	7	3	15	9	9	20	18	26	13	7	9	6	7	8	3	1	-	33	120	153		
T	8	6	10	7	6	5	4	6	1	4	6	6	4	3	3	2	10	16	9	7	37	20	22	44	39	30	30	14	16	10	16	17	8	2	1	79	238	317		
Fakaifou																																								
M	6	4	7	7	4	8	6	11	8	6	6	6	5	5	8	8	7	10	5	13	28	39	30	43	27	26	15	20	12	13	14	3	4	1	1	-	97	179	276	
F	4	9	4	4	4	4	7	1	6	0	8	4	7	2	6	7	10	2	4	8	25	18	27	31	32	27	20	11	14	12	8	7	-	3	-	70	168	238		
T	10	13	11	11	8	12	13	12	14	6	14	10	12	7	14	15	17	12	9	21	53	57	57	74	59	53	35	31	26	25	22	10	4	4	1	3	167	347	514	
Vao and Motu																																								
M	0	0	1	1	0	0	0	0	0	0	2	0	0	0	0	1	0	4	1	0	2	0	3	6	5	5	7	1	3	2	4	0	0	0	0	1	5	34	39	
F	2	1	0	2	2	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	7	0	1	3	5	3	1	1	2	0	1	1	1	0	0	8	18	26		
T	2	1	1	3	2	0	0	0	0	0	2	0	0	0	0	2	1	6	1	0	9	0	4	9	10	8	8	2	5	2	5	1	1	0	0	13	52	65		
TOTAL FUNAFUTI																																								
M	34	18	20	27	13	19	19	25	15	27	25	22	18	19	18	29	34	39	28	40	112	105	102	170	130	100	74	62	46	45	52	36	19	14	7	6	319	761	1080	
F	17	24	17	19	18	18	20	21	17	13	14	19	12	15	15	25	29	26	28	30	95	89	75	138	127	111	69	49	58	48	42	34	10	12	3	13	259	723	982	
T	51	42	37	46	31	37	39	46	32	40	39	41	30	34	33	54	63	65	56	70	207	194	177	308	257	211	143	111	104	93	94	70	38	26	10	19	578	1484	2062	
FUNAFUTI NON-INDIGENOUS																																								
M	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	-	-	4	4	10	3	2	0	2	1	1	0	1	0	1	4	28	32
F	1	0	0	2	3	1	1	0	0	1	0	0	0	1	0	0	0	0	0	0	6	3	1	-	3	2	6	2	1	0	1	0	1	-	-	10	16	26		
T	1	0	0	3	4	1	2	0	0	1	0	0	0	1	0	0	0	0	0	0	9	4	1	-	7	6	16	5	3	0	3	1	2	-	14	44	58			

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INDIGENOUS POPULATION BY VILLAGE OF ENUMERATION AND NON-INDIGENOUS POPULATION BY
ISLAND OF ENUMERATION BY SINGLE YEARS OF AGE 0-19 AND FIVE YEAR AGE GROUPS

		AGE																					TOTAL
		0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75+	0-14	15+				
		4	9	14	19	24	29	34	39	44	49	54	59	64	69	74							
NOKULAEAE																							
Fagaua																							
M	1	3	3	2	3	2	6	2	7	8	5	3	8	3	10	3	3	1	7	4			
F	6	1	2	1	3	1	2	3	1	5	4	6	3	4	0	2	8	4	7	5			
T	7	4	5	3	6	3	8	5	8	13	9	9	11	7	10	5	11	5	14	9			
NIULAKITA																							
M	0	2	2	1	2	1	1	3	3	0	1	0	0	1	0	0	1	1	1	1			
F	2	2	0	1	0	0	1	1	0	1	0	2	1	0	0	0	0	0	0	1			
T	2	4	2	2	2	1	2	4	3	1	1	2	1	1	0	0	1	1	1	2			
TOTAL TUVALU INDIGENOUS																							
M	87	80	75	91	71	62	76	83	76	98	84	108	106	105	107	119	95	92	89	99			
F	69	66	66	66	70	67	65	63	57	78	78	101	86	100	96	99	114	103	115	94			
T	156	146	141	157	141	129	141	146	133	176	162	209	192	205	203	218	209	205	204	193			
TOTAL TUVALU NON-INDIGENOUS																							
M	1	1	1	3	3	2	3	1	1	1	1	1	1	1	1	1	1	1	1	1			
F	1	1	1	3	3	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
T	1	1	1	4	6	2	4	2	2	2	2	2	2	2	2	2	2	2	2	2			
DE FACTO TOTAL TUVALU																							
M	87	81	75	92	74	62	79	83	77	98	84	108	106	105	107	119	95	92	89	99			
F	70	66	66	69	73	69	66	63	57	79	78	101	86	101	96	99	114	103	115	94			
T	157	147	141	161	147	131	145	146	134	177	162	209	192	206	203	218	209	205	204	193			
NAURU																							
M	12	9	6	11	7	11	11	9	11	7	9	5	4	6	3	2	3	0	1	3			
F	12	15	8	11	3	16	6	13	7	11	8	7	8	7	5	1	2	1	1	2			
T	24	24	14	22	10	27	17	22	18	18	17	12	12	13	8	3	5	1	2	5			

TABLE 3

TOTAL INDIGENOUS POPULATION BY SEX AND SINGLE YEARS OF AGE

Age			Age			Age			Age			Age			Age			Age			
M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	M	F	T	
0	87	69	156	20	68	106	174		40	32	28	60		60	24	38	62	80	3	1	4
1	80	66	146	21	58	65	123		41	21	53	74		61	16	19	35	81	3	3	6
2	75	66	141	22	48	63	111		42	23	37	60		62	20	22	42	82	-	4	4
3	91	66	157	23	60	73	133		43	25	48	73		63	17	24	41	83	2	2	4
4	71	70	141	24	49	89	138		44	20	37	57		64	19	20	39	84	2	2	4
5	62	67	129	25	44	74	118		45	22	35	57		65	14	15	29	85	1	-	1
6	76	65	141	26	47	80	127		46	31	37	68		66	8	20	28	86	3	6	9
7	83	63	146	27	43	61	104		47	30	38	68		67	12	17	29	87	1	-	1
8	76	57	133	28	36	73	109		48	30	34	64		68	7	19	26	88	-	2	2
9	98	78	176	29	47	64	111		49	38	37	75		69	15	17	32	89	-	-	-
10	84	78	162	30	32	51	83		50	40	42	82		70	10	18	28	90	-	-	-
11	108	101	209	31	33	39	72		51	28	25	53		71	7	10	17	91	-	-	-
12	106	86	192	32	27	50	77		52	27	34	61		72	5	5	10	92	-	2	2
13	105	100	205	33	35	51	86		53	31	32	63		73	4	14	18	93	-	1	1
14	107	96	203	34	23	31	54		54	40	29	69		74	5	9	14	94	-	-	-
15	119	99	218	35	17	40	57		55	34	37	71		75	7	14	21	95	-	1	1
16	95	114	209	36	34	45	79		56	30	36	66		76	2	10	12	96	-	-	-
17	92	103	195	37	31	39	70		57	28	25	53		77	3	9	12	97	-	-	-
18	89	115	204	38	20	36	56		58	28	27	55		78	4	13	17	98	-	-	-
19	99	94	193	39	38	53	91		59	24	24	48		79	3	10	13	99	-	-	-
																		100	1	-	1
TOTAL																			3393	3878	7271

TABLE 4

THE ETHNIC ORIGINS OF THE TOTAL POPULATION BY ISLAND OF ENUMERATION BY FIVE-YEAR AGE GROUPS* AND SEX

Ethnic Groups	Five Year Age Groups and Sex																																TOTAL M F	
	0-4		5-9		10-14		15-19		20-24		25-29		30-34		35-39		40-44		45-49		50-54		55-59		60-64		65-69		70-74		75+			
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F		
NANUEA																																		
Tuvaluan	41	37	37	31	64	44	50	51	32	42	20	36	14	35	5	22	13	19	11	26	19	17	29	20	12	20	6	15	6	13	11	20		
Tuvalu/Kiribati	1	2	2	2	5	5	1	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Tuvalu/Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Kiribati/Other	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
All Components	42	39	39	33	69	44	52	54	32	44	20	36	15	35	5	24	13	20	12	27	19	17	29	20	12	21	6	15	6	13	11	20		
NANUMAGA																																		
Tuvaluan	28	39	30	32	45	35	36	37	18	29	9	31	7	16	7	17	8	17	16	20	13	16	18	16	8	13	4	6	5	6	1	6		
Tuvalu/Kiribati	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Tuvalu/Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Kiribati/Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Other Pacific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
European	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
All Components	29	40	32	33	46	36	37	38	19	30	9	31	8	16	7	20	8	17	17	20	13	16	18	16	8	13	4	6	5	6	1	6		
NIUTAO																																		
Tuvaluan	49	42	37	39	64	49	49	58	28	43	7	45	11	28	11	28	10	26	19	15	21	20	19	23	16	13	5	18	6	7	3	16		
Tuvalu/Kiribati	1	-	3	1	4	-	2	2	1	1	2	2	2	-	-	-	1	-	-	3	-	1	-	-	-	-	-	-	-	-	-	-		
Tuvalu/Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Kiribati/Other	-	-	2	-	-	-	-	1	-	4	1	1	1	1	-	2	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-		
All Components	50	42	42	40	68	49	51	61	28	49	8	49	11	31	11	30	11	26	19	19	21	22	19	23	16	13	5	19	6	7	3	17		
NULI																																		
Tuvaluan	28	16	37	25	32	25	29	37	17	19	15	25	7	18	6	11	8	19	7	7	9	13	8	11	10	9	8	4	3	5	4	5		
Tuvalu/Kiribati	4	5	8	1	4	3	7	7	7	7	2	8	1	2	6	2	2	2	1	3	-	3	2	1	1	1	1	1	1	1	1	2		
Tuvalu/Other	-	-	-	-	-	-	1	1	1	1	1	1	1	1	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-		
Kiribati/Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Other Pacific	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
European	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
All Components	33	21	46	26	38	28	37	45	25	28	17	37	9	21	12	15	11	22	10	12	9	17	10	13	11	12	9	6	4	6	6	7		
All Components	287	316	603																															

* ages unadjusted

TABLE 4

THE ETHNIC ORIGINS OF THE TOTAL POPULATION BY ISLAND OF ENUMERATION BY FIVE YEAR AGE GROUPS* AND SEX

Ethnic Groups	Five Year Age Groups and Sex																																TOTAL F	M	P	
	0-4		5-9		10-14		15-19		20-24		25-29		30-34		35-39		40-44		45-49		50-54		55-59		60-64		65-69		70-74		75+					
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F				
<u>VAITUPU</u>																																				
Tuvaluan	46	27	52	43	119	145	91	118	41	57	32	47	25	27	16	28	15	21	15	31	27	21	17	23	11	24	11	13	3	9	7	8	528	642	1170	
Tuvalu/Kiribati	4	7	1	6	6	6	7	6	-	5	-	3	1	-	-	-	-	1	1	1	-	-	-	-	1	-	1	-	-	-	-	2	21	37	58	
Tuvalu/Other	1	1	1	1	2	1	-	1	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1	-	3	-	-	-	-	-	4	6	13	19	
Kiribati/Other	-	-	-	-	-	-	-	-	-	2	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	8	9	
European	-	1	3	1	-	-	-	-	-	1	3	2	1	2	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	8	17		
All Components	51	36	57	51	127	152	98	125	41	65	35	52	27	33	18	29	15	22	16	32	28	22	17	26	13	27	12	13	3	9	7	14	565	708	1273	
<u>NUKUFETAU</u>																																				
Tuvaluan	29	15	36	29	34	42	32	53	20	31	15	31	7	19	6	22	15	24	9	15	19	15	12	9	11	11	11	3	9	3	8	2	4	253	337	590
Tuvalu/Kiribati	3	4	1	2	1	1	2	-	-	2	-	2	-	-	-	1	-	2	-	-	1	2	-	1	-	-	-	-	1	-	-	-	8	18	26	
Tuvalu/Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	5	
Kiribati/Other	-	1	-	-	-	-	-	1	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	4	5		
Other Pacific	-	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	3	3	
All Components	32	21	37	31	35	43	34	55	20	34	16	34	7	20	6	23	15	26	9	15	20	17	12	11	11	11	3	10	3	8	2	5	262	364	626	
<u>FUNAFUTI</u>																																				
Tuvaluan	84	70	86	75	96	68	142	123	119	114	93	99	73	61	59	41	45	56	40	48	43	44	40	31	18	17	14	12	8	4	8	11	968	874	1842	
Tuvalu/Kiribati	15	5	9	16	7	3	5	5	6	5	2	4	1	4	-	2	1	1	2	3	1	1	2	-	-	-	-	-	-	-	-	-	50	45	95	
Tuvalu/Other	4	5	-	2	4	2	4	3	6	6	3	4	2	2	-	1	-	-	1	1	3	1	1	2	1	1	-	-	-	-	-	-	30	30	60	
Kiribati/Other	1	1	-	1	2	-	-	1	3	3	2	3	1	8	1	1	-	2	1	1	1	1	-	-	1	1	-	-	-	-	-	-	11	24	35	
Other Pacific	1	2	-	-	-	-	1	-	5	1	3	1	7	1	1	1	2	-	-	-	1	-	-	1	-	1	-	-	-	-	-	-	21	9	30	
European	3	5	1	3	-	2	-	-	1	2	5	2	10	7	4	2	2	1	-	-	2	1	1	-	1	1	-	-	1	-	-	-	31	26	57	
Other Non Pacific	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	
All Components	108	88	96	97	109	75	153	131	141	131	108	113	94	83	64	48	50	60	45	50	49	47	44	34	20	21	14	13	9	4	8	13	1112	1008	2120	
<u>NUKULAEAE</u>																																				
Tuvaluan	10	10	21	11	25	18	23	23	8	13	8	16	6	12	9	8	8	19	11	10	8	5	6	10	5	3	4	8	3	7	2	5	157	178	335	
Tuvalu/Kiribati	-	-	2	2	1	1	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	5	8	
Tuvalu/Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	3
Kiribati/Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	
All Components	10	10	23	13	26	19	23	24	8	14	8	16	6	14	9	8	8	19	11	11	8	5	6	10	5	4	4	8	3	7	2	5	160	187	347	

TABLE 4

THE ETHNIC ORIGINS OF THE TOTAL POPULATION BY ISLAND OF ENUMERATION BY FIVE YEAR AGE GROUPS* AND SEX

Ethnic Groups	Five Year Age Groups and Sex																				TOTAL																
	0-4		5-9		10-14		15-19		20-24		25-29		30-34		35-39		40-44		45-49		50-54		55-59		60-64		65-69		70-74		75+		M	F	P		
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F				M	F
NIULAKITA																																					
Tuvaluan	5	3	9	1	2	2	3	-	5	3	5	5	-	1	2	1	3	1	3	2	1	1	2	1	1	1	-	-	-	-	-	-	37	21	58		
Tuvalu/Kiribati	-	2	1	1	-	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	2	4	6			
Kiribati/Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1		
All Components	5	5	10	2	2	4	3	-	5	3	5	5	-	1	2	1	3	2	3	2	1	1	2	1	1	1	-	-	-	-	-	39	26	65			
TUVALU																																					
Tuvaluan	320	259	345	286	481	428	455	500	288	351	204	330	151	218	120	180	123	204	130	173	160	153	150	143	92	111	55	85	37	59	38	75	3149	3555	6704		
Tuvalu/Kiribati	29	26	28	30	29	16	25	23	14	24	4	19	4	9	6	6	5	5	5	4	1	7	4	2	2	1	2	1	1	1	1	1	160	179	339		
Tuvalu/Other	5	6	2	5	7	3	5	7	7	8	3	7	2	2	2	2	1	1	1	1	4	3	1	3	4	4	-	-	-	-	-	-	41	59	100		
Kiribati/Other	1	2	2	1	3	1	2	3	3	10	4	7	2	16	1	7	1	5	1	5	1	1	1	2	2	2	5	-	3	-	-	-	22	71	93		
Other Pacific	1	3	1	-	1	-	1	-	5	5	2	3	1	7	1	1	2	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	21	14	35		
European	4	6	5	4	-	2	-	-	1	3	8	4	12	9	6	3	2	1	-	-	2	1	1	1	1	1	1	-	1	-	-	43	34	77			
Asian	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Other Non Pacific	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1			
Not Stated	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
All Components	360	302	382	326	520	450	488	533	319	398	226	368	178	255	133	200	133	215	141	187	168	165	156	153	97	123	57	90	39	60	40	87	3437	3912	7349		

TABLE 5

TOTAL POPULATION CLASSIFIED ACCORDING TO COUNTRY OF ORIGIN BY FIVE-YEAR AGE GROUPS* BY SEX

Country of Origin	Age Groups: by Sex																																TOTAL			
	0-4		5-9		10-14		15-19		20-24		25-29		30-34		35-39		40-44		45-49		50-54		55-59		60-64		65-69		70-74		75+					
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F				
Tuvalu	353	291	375	319	515	447	485	530	304	381	212	354	157	224	126	188	128	207	140	181	164	163	155	147	93	116	56	86	38	60	39	85	3340	3778		
Trust Territory of the Pacific Islands	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Kiribati	1	2	2	3	4	1	2	3	4	10	3	7	4	18	-	7	1	7	1	5	-	1	-	3	3	5	1	4	-	-	1	2	27	78		
New Hebrides	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
West Samoa	-	-	-	-	1	-	-	-	5	1	-	-	1	1	-	2	-	-	-	1	1	-	-	2	-	1	-	-	-	-	-	-	8	8		
Nauru	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1		
Solomons	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Fiji	2	1	-	-	-	-	-	-	-	-	1	1	1	2	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	4		
Other Pacific	-	1	-	-	-	-	1	-	4	3	2	2	3	1	1	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	12	8		
United Kingdom and Ireland	-	3	3	2	-	-	-	-	-	-	3	3	5	4	5	2	2	1	-	-	-	-	1	-	1	1	-	-	-	-	-	-	20	16		
Australia	1	1	1	1	-	2	-	-	1	1	-	-	2	3	-	1	-	-	-	-	1	1	-	-	-	-	-	-	1	-	-	7	10			
New Zealand	3	2	1	-	-	-	-	-	-	-	2	1	4	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	4		
India	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-			
British Commonwealth	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-			
United States	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Other Europe and America	-	-	-	1	-	-	-	-	-	2	2	-	1	1	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	4	4			
China	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
All Others	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
TOTAL	360	302	382	326	520	450	488	533	319	398	226	368	178	255	133	200	133	215	141	187	168	165	156	153	97	123	57	90	39	60	40	87	3437	3912		

TABLE 6

THE TOTAL POPULATION OF TUVALU CLASSIFIED BY SINGLE YEARS OF AGE AND FIVE-YEAR AGE GROUPS BY SEX
SHOWING THE HIGHEST CLASS COMPLETED AT SCHOOL OR COLLEGE SEPARATELY FOR THOSE ATTENDING AND THOSE NOT ATTENDING

TUVALU Age	Sex	Never Attended	Highest Level Completed										Totals		Total In Age Group		
			Primary Class 1-3 At School	Primary Class 4-5 At School	Primary Class 6-7 At School	Primary Class 8-9 At School	Secondary Form 1-2 At School	Secondary Form 3-4 At School	Secondary Form 5-6 At School	University For 2 Years At College	University Degree or Diploma	At School	Left School				
0-4	M	404	-	-	-	-	-	-	-	-	-	-	-	-	404	-	404
	F	337	-	-	-	-	-	-	-	-	-	-	-	-	337	-	337
5	M	56	6	-	-	-	-	-	-	-	-	-	6	-	56	-	62
	F	56	11	-	-	-	-	-	-	-	-	-	11	-	56	-	67
6	M	2	66	4	-	-	-	-	-	-	-	-	72	2	2	-	76
	F	2	58	1	-	-	-	-	-	-	-	-	62	1	2	-	65
7	M	3	62	18	-	-	-	-	-	-	-	-	80	-	3	-	83
	F	1	48	12	-	-	-	-	-	-	-	-	60	2	1	-	63
8	M	-	30	44	1	-	-	-	-	-	-	-	76	-	-	-	76
	F	-	21	36	-	-	-	-	-	-	-	-	57	-	-	-	57
9	M	2	11	68	18	1	-	-	-	-	-	-	98	-	-	-	98
	F	-	7	56	12	1	-	-	-	-	-	-	76	-	-	-	78
5-9	M	61	175	136	19	2	-	-	-	-	-	-	332	2	61	-	395
	F	61	145	108	12	1	-	-	-	-	-	-	266	3	61	-	330
10	M	-	1	32	47	1	1	-	-	-	-	-	82	2	-	-	84
	F	-	-	35	42	1	-	-	-	-	-	-	78	-	-	-	78
11	M	2	1	18	67	1	3	-	-	-	-	-	105	1	2	-	108
	F	-	-	19	58	5	19	-	-	-	-	-	101	-	-	-	101
12	M	1	2	12	29	4	27	1	29	-	-	-	99	7	-	-	106
	F	-	-	6	26	1	15	1	36	-	-	-	83	2	-	-	86
13	M	2	-	4	25	1	54	3	9	-	-	-	98	5	2	-	105
	F	-	-	1	9	4	50	2	20	-	-	-	92	8	-	-	100
14	M	-	-	1	9	12	42	26	5	-	-	-	64	43	-	-	107
	F	1	-	1	5	3	37	23	5	-	-	-	68	27	-	-	96
10-14	M	4	177	18	127	30	55	3	18	-	-	-	448	58	4	-	510
	F	2	140	8	108	26	80	2	33	-	-	-	422	37	2	-	461
15	M	1	2	2	15	7	82	3	5	1	-	-	15	103	1	-	119
	F	1	1	2	10	11	50	4	17	-	-	-	33	65	1	-	99
16	M	-	-	-	19	2	64	5	1	2	-	-	5	90	-	-	95
	F	1	-	-	14	2	77	2	4	3	-	-	13	100	1	-	114
17	M	1	-	-	11	2	56	-	-	8	-	-	12	79	1	-	92
	F	-	-	-	7	1	70	-	-	6	-	-	9	94	1	-	103
18	M	-	-	-	21	-	45	1	-	7	-	-	6	83	-	-	89
	F	-	-	-	19	-	73	4	-	4	-	-	4	111	-	-	115
19	M	-	-	-	26	-	37	7	-	5	-	-	5	94	-	-	99
	F	-	-	-	19	-	46	7	-	3	-	-	4	88	-	-	94
15-19	M	2	17	2	92	11	284	16	22	7	29	23	43	449	2	-	494
	F	4	9	2	69	14	316	22	23	24	28	12	63	458	4	-	525

TABLE 7

THE HIGHEST EDUCATIONAL ATTAINMENT OF THE INDIGENOUS POPULATION OVER 5 YEARS OF AGE ON EACH ISLAND
SHOWING BY AGE GROUPS AND SEX THOSE ATTENDING AND NOT ATTENDING SCHOOL OR COLLEGE

Island and Educational Level	A T T E N D I N G										N O T A T T E N D I N G										Total Not Attending M F	TOTAL POPULATION M F P																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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	5-9 M F	10-14 M F	15-19 M F	20-24 M F	25-34 M F	35-44 M F	45-54 M F	55+ M F	5-9 M F	10-14 M F	15-19 M F	20-24 M F	25-34 M F	35-44 M F	45-54 M F	55+ M F																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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THE HIGHEST EDUCATIONAL ATTAINMENT OF THE INDIGENOUS POPULATION OVER 5 YEARS OF AGE ON EACH ISLAND SHOWING BY AGE GROUPS AND SEX THOSE ATTENDING AND NOT ATTENDING SCHOOL OR COLLEGE

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TABLE 7.

THE HIGHEST EDUCATIONAL ATTAINMENT OF THE INDIGENOUS POPULATION OVER 5 YEARS OF AGE ON EACH ISLAND
SHOWING BY AGE GROUPS AND SEX THOSE ATTENDING AND NOT ATTENDING SCHOOL OR COLLEGE

Island and Educational Level	A T T E N D I N G						N O T A T T E N D I N G												Total Attending		Total Not Attending		TOTAL POPULATION																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
	Years of Age						Years of Age												M	F	M	F	M	F																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
	5-9	10-14	15-19	20+	M	F	5-9	10-14	15-19	20-24	25-34	35-44	45-54	55+	M	F	M	F																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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TABLE 8

THE MARITAL STATUS OF THE INDIGENOUS POPULATION BY SINGLE YEARS OF AGE 15-29 AND 5 YEAR AGE GROUPS* BY SEX

Marital Status	Sex	0-4	5-9	10-14	15	16	17	18	19	15-19	20	21	22	23	24	20-24	25	26	27	28	29	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75+	Total
TUVALU																																	
Never Married	M	356	377	520	95	111	98	94	89	487	89	54	47	42	39	271	28	13	28	17	24	110	50	20	9	4	3	2	3	-	1	-	2213
	F	296	322	448	102	97	116	97	104	516	74	63	53	38	35	263	38	38	26	22	20	144	54	39	35	23	23	14	13	9	1	5	2205
Married	M	-	-	-	-	-	-	-	1	1	2	4	7	6	26	45	18	20	27	22	19	106	113	103	117	132	160	139	84	49	26	25	1100
	F	-	-	-	-	-	-	4	13	17	19	19	19	33	36	126	40	36	44	39	42	201	174	135	148	130	100	104	53	35	8	18	1249
Widowed	M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2	2	9	8	10	14	55	
	F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-	2	2	10	19	20	28	29	50	42	47	61	310
Divorced	M	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	-	-	2	3	3	4	3	1	5	1	-	1	1	25	
	F	-	-	-	-	-	-	-	-	-	2	-	-	1	3	6	5	5	2	2	3	17	16	13	12	14	13	6	6	4	4	3	114
TOTAL	M	356	377	520	95	111	98	94	90	488	91	58	54	48	66	317	47	34	55	39	43	218	166	127	131	141	166	155	96	57	38	40	3393
	F	296	322	448	102	97	116	101	117	533	95	82	72	72	74	395	84	80	72	63	65	364	246	197	214	187	164	153	122	90	60	87	3878
NAURU																																	
Never Married	M	41	48	30	2	3	2	-	1	8	6	4	8	11	7	36	8	9	3	10	5	35	30	7	-	1	-	-	-	-	-	-	236
	F	46	49	39	3	2	2	-	2	9	1	3	-	1	1	6	4	2	1	1	1	9	2	-	-	-	-	-	-	-	-	-	160
Married	M	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2	2	2	4	6	4	18	32	61	40	25	14	3	1	1	-	-	197
	F	-	-	-	-	-	-	-	-	-	-	-	3	1	5	9	6	8	8	5	5	32	37	16	13	9	3	1	1	-	-	-	121
Widowed	M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	1	-	-	-	3
	F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	2
Divorced	M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	2	-	-	-	1	-	-	-	-	-	-	-	3
	F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	M	41	48	30	2	3	2	-	1	8	6	4	8	12	8	38	10	12	7	16	10	55	62	68	40	29	14	3	1	2	-	-	439
	F	46	49	39	3	2	2	-	2	9	1	3	3	2	6	15	10	10	9	6	6	41	39	16	13	9	4	1	2	-	-	-	283

* ages unadjusted

TABLE 9

THE RELIGION OF THE INDIGENOUS POPULATION BY ISLAND OF ENUMERATION BY SEX,
GROUPED BY AGE INTO THOSE UNDER AND OVER 15 YEARS OF AGE*

ISLANDS	TUVALU CHURCH		SDA		BAHAI		JEHOVAHS WITNESS		CATHOLIC		OTHERS		NONE		REFUSED OR N.S.		TOTAL	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Nanumea	145	108	-	-	5	8	-	-	-	-	-	-	-	-	-	-	150	116
	223	333	-	-	9	12	-	-	-	1	-	-	-	-	-	-	232	346
Total	368	441	-	-	14	20	-	-	-	1	-	-	-	-	-	-	382	462
Nanumaga	107	109	-	-	-	-	-	-	-	-	-	-	-	-	-	-	107	109
	152	235	-	-	-	-	1	-	-	-	-	-	-	-	-	-	153	235
Total	259	344	-	-	-	-	1	-	-	-	-	-	-	-	-	-	260	344
Niutao	155	129	5	2	-	-	-	-	-	-	-	-	-	-	-	-	160	131
	204	356	5	10	-	-	-	-	-	-	-	-	-	-	-	-	209	366
Total	359	485	10	12	-	-	-	-	-	-	-	-	-	-	-	-	369	497
Nui	114	75	-	-	-	-	-	-	1	5	-	-	1	-	-	-	115	75
	168	236	-	-	-	-	-	-	1	5	-	-	1	-	-	-	170	241
Total	282	311	-	-	-	-	-	-	2	5	-	-	1	-	-	-	285	316
Vaitupu	228	233	3	1	1	3	-	-	-	-	-	-	-	-	-	-	232	237
	315	454	4	4	4	5	-	-	-	-	1	-	-	-	-	-	324	463
Total	543	687	7	5	5	8	-	-	-	-	1	-	-	-	-	-	556	700
Hukufetau	104	93	-	2	-	-	-	-	-	-	-	-	-	-	-	-	104	95
	152	267	3	-	3	1	-	-	-	-	1	-	-	-	-	-	158	269
Total	256	360	3	2	3	1	-	-	-	-	1	-	-	-	-	-	262	364
Funafuti	296	233	6	8	2	4	3	1	2	3	1	-	-	-	-	-	309	250
	720	693	26	22	9	9	4	5	3	2	9	1	-	-	-	-	771	732
Total	1016	926	32	30	11	13	7	6	5	5	9	2	-	-	-	-	1080	982
Inukulaelae	59	42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	59	42
	100	145	-	-	-	-	-	-	-	-	-	-	-	-	1	-	101	145
Total	159	187	-	-	-	-	-	-	-	-	-	-	-	-	1	-	160	187
Hiulakita	17	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17	11
	22	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22	15
Total	39	26	-	-	-	-	-	-	-	-	-	-	-	-	-	-	39	26
TUVALU TOTAL	1225	1033	14	13	8	15	3	1	3	3	1	-	-	-	-	-	1253	1066
	2056	2734	38	36	25	27	5	5	4	8	10	2	1	-	1	-	2140	2812
Total	3281	3767	52	49	33	42	8	6	7	11	10	3	1	-	1	-	3393	3878

* ages unadjusted

TABLE 10

THE NUMBER OF INDIGENOUS WOMEN AGED 15 YEARS AND OVER CLASSIFIED ACCORDING TO THE TOTAL OF CHILDREN EVER BORN ALIVE IN CONJUNCTION WITH THE PRESENT AGE OF THE WOMEN

Age Group of Women	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15+	N.S	Total Number of Women	Children
FUNAFUTI	131	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	138	8
15-19	79	39	9	11	8	1	1	1	1	1	1	1	1	1	1	1	1	127	57
20-24	35	29	25	18	12	6	4	3	1	1	1	1	1	1	1	1	1	111	154
25-29	15	9	8	9	4	10	4	3	1	2	2	1	1	1	1	1	1	69	163
30-34	6	5	5	6	8	10	3	6	2	4	4	2	1	1	1	1	1	49	181
35-39	7	4	4	6	5	4	3	3	4	5	4	2	2	1	1	1	1	58	261
40-44	6	1	2	3	4	5	4	3	4	4	4	2	1	1	1	1	1	48	278
45-49	4	1	3	3	1	7	4	5	4	4	3	2	1	1	1	1	1	42	244
50-54	5	2	3	3	3	4	3	3	2	1	3	2	1	1	1	1	1	34	165
55-59	4	1	1	1	1	5	2	1	2	2	1	1	1	1	1	1	1	19	88
60-64	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	12	58
65-69	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	26
70-74	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	13	71
75+	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	13	71
TOTAL	296	101	63	57	46	44	27	23	15	19	16	7	5	2	1	1	1	723	1754
TUVALU EXCLUDING FUNAFUTI	374	11	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	387	16
15-19	174	67	18	10	14	5	1	1	1	1	1	1	1	1	1	1	1	269	133
20-24	78	56	56	30	22	13	6	3	1	1	1	1	1	1	1	1	1	241	354
25-29	28	19	28	33	20	18	11	9	8	5	3	1	1	1	1	1	1	153	392
30-34	27	20	23	14	26	20	21	19	11	11	6	5	1	1	1	1	1	164	568
35-39	10	14	13	14	9	8	11	17	12	17	12	4	1	1	1	1	1	145	659
40-44	7	14	13	11	9	8	11	17	10	14	12	7	4	1	1	1	1	133	737
45-49	10	9	9	11	10	9	9	7	10	14	7	7	5	1	1	1	1	120	693
50-54	13	9	10	9	7	5	14	6	13	9	6	7	5	1	1	1	1	115	640
55-59	11	16	8	8	6	5	6	9	13	9	6	2	3	1	1	1	1	104	534
60-64	11	6	3	3	7	5	10	6	8	7	3	5	1	1	1	1	1	76	413
65-69	5	7	4	2	4	2	8	6	4	4	4	1	2	1	1	1	1	53	280
70-74	12	6	4	3	5	4	1	4	11	7	5	3	1	1	1	1	1	67	356
75+	12	6	4	3	5	4	1	4	11	7	5	3	1	1	1	1	1	67	356
TOTAL	760	254	190	149	130	85	105	86	91	76	46	28	17	7	3	1	1	2027	5775

* 15 children

TABLE 10

THE NUMBER OF INDIGENOUS WOMEN AGED 15 YEARS AND OVER CLASSIFIED ACCORDING TO THE TOTAL OF CHILDREN EVER BORN ALIVE IN CONJUNCTION WITH THE PRESENT AGE OF THE WOMEN

Age Group of Women	Number of Women to whom children have been born to the number of:-															Total Number of Women	Total Number of Children
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15+	N.S.
TUVALU	505	17	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-
15-19	253	106	27	10	-	-	-	-	-	-	-	-	-	-	-	-	-
20-24	113	85	81	41	22	7	1	1	1	1	1	1	1	1	1	1	1
25-29	43	28	36	51	34	19	3	1	1	1	1	1	1	1	1	1	1
30-34	33	25	28	23	24	30	12	9	5	2	2	1	1	1	1	1	1
35-39	17	18	17	20	34	14	25	13	7	5	1	1	1	1	1	1	1
40-44	13	15	15	17	14	12	20	16	22	10	10	6	4	2	1	1	1
45-49	14	10	12	14	11	16	13	14	18	16	16	9	5	3	1	1	1
50-54	18	11	13	12	10	9	17	12	15	10	10	2	3	2	1	1	1
55-59	15	16	9	9	8	10	10	13	11	9	6	5	3	1	1	1	1
60-64	12	9	4	3	9	5	10	9	9	3	3	1	2	1	1	1	1
65-69	5	8	4	2	4	2	8	6	4	4	5	1	2	1	1	1	1
70-74	15	7	5	3	6	5	1	5	12	8	5	4	3	1	1	1	1
75+																	
TOTAL	1056	355	253	206	176	129	132	109	106	95	62	35	22	9	3	1	1
																	7529

TABLE 11

THE NUMBER OF INDIGENOUS WOMEN AGED 15 YEARS AND OVER CLASSIFIED ACCORDING TO THE
TOTAL NUMBER OF CHILDREN NOW ALIVE IN CONJUNCTION WITH THE PRESENT AGE OF THE WOMEN

Age Group of Women	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15+	N.S.	Total Number of Women	Children
FUNAFUTI																			
15-19	132	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	138	7
20-24	81	40	6	16	5	1	1	1	1	1	1	1	1	1	1	1	1	127	52
25-29	37	28	24	14	11	6	1	1	1	1	1	1	1	1	1	1	1	111	144
30-34	15	6	5	11	11	3	3	3	1	1	1	1	1	1	1	1	1	69	153
35-39	7	4	6	5	9	5	12	5	2	2	1	1	1	1	1	1	1	49	168
40-44	6	2	3	5	8	3	5	4	3	4	3	1	1	1	1	1	1	58	243
45-49	4	2	5	1	3	8	3	6	1	3	1	1	1	1	1	1	1	42	210
50-54	6	2	5	3	5	3	3	2	1	1	1	1	1	1	1	1	1	34	134
55-59	4	2	3	1	3	6	1	1	1	1	1	1	1	1	1	1	1	19	71
60-64	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	12	46
65-69	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3	22
70-74	3	2	1	1	1	2	1	1	1	1	2	1	1	1	1	1	1	13	52
75+																			
TOTAL	303	103	75	57	46	45	30	20	18	14	8	1	1	1	1	1	1	723	1539
TUVALU EXCLUDING FUNAFUTI																			
15-19	374	11	1	8	1	1	1	1	1	1	1	1	1	1	1	1	1	387	16
20-24	174	70	17	33	18	4	1	1	1	1	1	1	1	1	1	1	1	289	128
25-29	80	57	58	31	20	9	1	1	1	1	1	1	1	1	1	1	1	241	332
30-34	29	23	31	35	22	11	21	14	5	1	1	1	1	1	1	1	1	153	359
35-39	28	25	21	20	18	15	15	16	10	7	4	2	1	1	1	1	1	164	503
40-44	11	17	17	10	12	9	13	13	7	6	4	3	1	1	1	1	1	145	565
45-49	13	12	16	16	12	11	13	13	8	6	4	3	1	1	1	1	1	133	611
50-54	13	12	14	12	7	13	14	8	6	4	3	3	1	1	1	1	1	120	543
55-59	13	15	14	10	8	11	15	8	6	1	1	1	1	1	1	1	1	115	487
60-64	20	16	7	10	14	11	8	3	7	1	1	1	1	1	1	1	1	104	371
65-69	12	8	8	7	7	9	5	3	3	1	1	1	1	1	1	1	1	76	274
70-74	9	7	3	7	7	9	5	3	3	1	1	1	1	1	1	1	1	53	182
75+	19	5	4	8	6	9	6	3	6	1	1	1	1	1	1	1	1	67	221
TOTAL	795	278	206	189	140	123	109	80	58	23	14	10	1	1	1	1	1	2027	4592
TUVALU																			
15-19	506	16	2	8	1	1	1	1	1	1	1	1	1	1	1	1	1	525	23
20-24	255	110	23	49	13	4	1	1	1	1	1	1	1	1	1	1	1	396	180
25-29	117	85	82	45	29	15	4	4	1	1	1	1	1	1	1	1	1	352	476
30-34	44	32	45	31	26	36	14	11	6	2	1	1	1	1	1	1	1	222	512
35-39	34	31	26	31	22	20	33	19	7	5	1	2	1	1	1	1	1	213	671
40-44	18	21	23	25	26	12	20	21	13	11	7	3	1	1	1	1	1	203	808
45-49	19	14	19	15	17	19	18	17	13	9	6	3	1	1	1	1	1	181	848
50-54	17	17	14	14	15	16	17	10	9	7	3	4	1	1	1	1	1	162	753
55-59	19	17	19	15	12	16	17	8	7	2	1	1	1	1	1	1	1	149	621
60-64	24	16	10	10	11	17	16	10	9	1	1	1	1	1	1	1	1	123	442
65-69	14	10	10	10	14	9	6	3	4	1	1	1	1	1	1	1	1	88	320
70-74	9	8	3	7	7	9	5	3	4	1	1	1	1	1	1	1	1	56	204
75+	22	7	5	9	6	11	6	4	7	1	3	1	1	1	1	1	1	80	273
TOTAL	1098	381	281	246	186	168	139	100	76	37	22	11	2	2	2	2	1	2750	6131

TABLE 12

THE INDIGENOUS MOTHERS AGED 15 YEARS AND OVER CLASSIFIED ACCORDING TO THEIR PRESENT AGE
AND THEIR AGE AT BIRTH OF THEIR FIRST CHILD

Present Age of Women	Under 15	15-19	20-24	25-29	30-34	35-39	40-44	45+	Total Mothers
15-19	1	19	-	-	-	-	-	-	20
20-24	-	63	89	-	-	-	-	-	152
25-29	-	66	144	29	-	-	-	-	239
30-34	2	51	99	22	5	-	-	-	179
35-39	1	60	85	24	7	3	-	-	180
40-44	1	55	91	24	13	2	-	-	186
45-49	-	51	80	27	8	2	-	-	168
50-54	-	30	83	27	8	-	-	-	148
55-59	1	30	48	37	10	4	1	-	131
60-64	1	27	49	17	10	4	-	-	108
65-69	-	33	31	8	3	-	1	-	76
70-74	-	22	19	8	1	1	-	-	51
75+	-	22	27	13	3	-	-	-	65
TOTAL	7	529	845	236	68	16	2	-	1703

TABLE 13

THE INDIGENOUS WOMEN AGED 15 YEARS AND OVER WHO ATTAINED MOTHERHOOD BY FIVE YEAR AGE GROUPS
SHOWING THE SEX AND THE NUMBER OF YEARS SINCE THE BIRTH OF THE LAST-BORN CHILD

Number of Years since Last Birth	Sex of Child	Present Age of Women												TOTAL	
		15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74		75+
0	M	4	31	39	11	8	1	1	1	1	1	1	1	93	
	F	5	27	24	13	3	1	1	1	1	1	1	1	74	
1	M	4	25	26	16	7	6	1	1	1	1	1	1	84	
	F	2	16	16	15	4	7	1	1	1	1	1	1	61	
2	M	4	14	27	12	6	7	1	1	1	1	1	1	71	
	F	1	15	15	8	10	3	1	1	1	1	1	1	52	
3	M	-	7	20	13	8	6	2	1	1	1	1	1	56	
	F	-	6	9	15	13	2	1	1	1	1	1	1	45	
4	M	-	4	11	6	10	4	1	1	1	1	1	1	36	
	F	-	-	10	6	8	6	1	1	1	1	1	1	31	
5	M	-	4	8	4	3	-	2	1	1	1	1	1	21	
	F	-	2	5	3	2	5	2	1	1	1	1	1	19	
6	M	-	-	10	6	4	5	7	1	1	1	1	1	32	
	F	-	-	4	3	5	2	4	1	1	1	1	1	19	
7	M	-	-	4	10	6	4	4	1	1	1	1	1	29	
	F	-	-	2	8	2	2	5	1	1	1	1	1	21	
8	M	-	1	1	3	3	9	8	1	1	1	1	1	25	
	F	-	-	1	1	7	4	2	1	1	1	1	1	16	
9	M	-	-	3	6	8	9	8	3	1	1	1	1	37	
	F	-	-	1	4	11	7	6	3	1	1	1	1	32	
10-14	M	-	-	1	10	18	33	44	30	10	1	1	1	146	
	F	-	-	-	5	21	31	27	28	8	1	1	1	121	
15-19	M	-	-	-	-	5	8	16	23	30	5	1	1	87	
	F	-	-	-	1	7	14	12	22	29	5	1	1	90	
20-29	M	-	-	-	-	-	2	9	11	26	34	18	1	101	
	F	-	-	-	-	1	8	6	19	17	38	13	5	107	
30+	M	-	-	-	-	-	-	-	4	2	13	25	18	96	
	F	-	-	-	-	-	-	-	1	7	12	20	27	98	
N.S		-	-	2	-	-	1	-	-	-	-	-	-	3	
TOTAL		20	152	239	179	180	186	168	148	131	108	76	51	65	1703

TABLE 14

THE INDIGENOUS WOMEN AGED 15 YEARS AND OVER WHO ATTAINED MOTHERHOOD AND WHOSE LAST BORN CHILD IS STILL ALIVE BY FIVE YEAR AGE GROUPS SHOWING THE SEX AND NUMBER OF YEARS SINCE THE BIRTH OF THAT CHILD

Number of Years since Last Birth	Sex of Child	Present Age of Women											TOTAL		
		15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69		70-74	75+
0	M	3	28	37	10	8	-	1	-	-	-	-	-	-	86
	F	5	26	22	12	2	1	1	-	-	-	-	-	-	69
1	M	4	19	25	15	7	5	-	-	-	-	-	-	-	75
	F	2	15	16	14	4	7	1	-	-	-	-	-	-	59
2	M	4	11	26	10	6	7	1	-	-	-	-	-	-	65
	F	1	15	14	8	10	3	-	-	-	-	-	-	-	51
3	M	-	7	19	13	7	5	2	-	-	-	-	-	-	53
	F	-	4	9	15	13	2	-	-	-	-	-	-	-	43
4	M	-	4	10	6	10	3	1	-	-	-	-	-	-	34
	F	-	-	10	6	7	6	-	-	-	-	-	-	-	29
5	M	-	4	8	3	3	3	2	-	-	-	-	-	-	20
	F	-	2	5	3	2	5	2	-	-	-	-	-	-	19
6	M	-	-	10	6	3	5	6	1	-	-	-	-	-	30
	F	-	-	3	3	4	2	4	1	-	-	-	-	-	17
7	M	-	-	4	10	5	4	4	1	-	-	-	-	-	28
	F	-	-	2	8	2	2	4	1	1	-	-	-	-	20
8	M	-	1	1	3	3	9	7	-	-	-	-	-	-	24
	F	-	-	1	1	7	3	1	-	-	-	-	-	-	13
9	M	-	-	2	6	8	9	8	3	-	-	-	-	-	36
	F	-	-	1	3	11	6	5	3	-	-	-	-	-	29
10-14	M	-	-	1	10	17	30	40	27	9	1	-	-	-	134
	F	-	-	-	5	21	27	24	26	7	-	-	-	-	111
15-19	M	-	-	-	-	4	6	14	20	22	5	-	-	-	71
	F	-	-	-	1	7	12	10	18	26	5	-	-	-	79
20-29	M	-	-	-	-	-	2	7	11	22	25	13	1	-	81
	F	-	-	-	-	1	8	5	17	15	29	11	5	-	91
30+	M	-	-	-	-	-	-	-	2	2	7	17	13	27	68
	F	-	-	-	-	-	-	-	1	6	7	19	23	21	77
N.S	M	-	-	2	-	-	1	-	-	-	-	-	-	-	3
	F	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL		19	136	228	171	172	170	149	131	110	79	60	42	48	1515

TABLE 15A
THE INDIGENOUS POPULATION* BY SEX, AGE GROUP AND SURVIVAL OF MOTHER
SHOWING FIRST CHILDREN AND OTHER CHILDREN SEPARATELY

Age Group	Total	Male Respondents Mother Alive	Mother Dead	Total	Female Respondents Mother Alive	Mother Dead
ELDEST SURVIVING CHILDREN ONLY						
0-4	159	159	-	114	114	-
5-9	129	128	1	121	120	1
10-14	103	97	6	94	91	3
15-19	88	81	7	85	80	5
20-24	56	53	3	97	88	9
25-29	66	58	8	91	78	13
30-34	60	48	12	66	51	15
35-39	51	35	16	59	35	24
40-44	46	22	24	46	33	13
45-49	48	23	25	32	17	15
50-54	50	18	32	34	11	23
55-59	42	11	31	44	11	33
60-64	30	-	30	39	5	34
65-69	19	1	18	26	-	26
70-74	11	-	11	16	-	16
75+	16	-	16	23	-	23
TOTAL	974	734	240	987	734	253
YOUNGER SURVIVING CHILDREN ONLY						
0-4	290	288	2	272	271	1
5-9	315	307	8	262	257	5
10-14	434	415	19	402	387	15
15-19	415	393	22	447	414	33
20-24	270	243	27	321	279	42
25-29	209	169	40	300	244	56
30-34	144	102	42	191	132	59
35-39	160	102	58	168	107	61
40-44	112	58	54	174	89	85
45-49	131	45	86	154	60	94
50-54	130	39	91	132	30	102
55-59	103	12	91	106	14	92
60-64	67	5	62	86	3	83
65-69	39	1	38	62	-	62
70-74	20	-	20	40	-	40
75+	19	-	19	57	-	57
TOTAL	2858	2179	679	3174	2287	887

* includes Tuvaluans in Nauru

TABLE 15A

THE INDIGENOUS POPULATION* BY SEX, AGE GROUP AND SURVIVAL OF MOTHER
SHOWING FIRST CHILDREN AND OTHER CHILDREN SEPARATELY

TOTAL POPULATION	Age Group	Male Respondents		Female Respondents	
		Total	Mother Alive	Mother Dead	Total
	0-4	449	447	2	386
	5-9	444	435	9	383
	10-14	537	512	25	496
	15-19	503	474	29	532
	20-24	326	296	30	418
	25-29	275	227	48	391
	30-34	204	150	54	257
	35-39	211	137	74	227
	40-44	158	80	78	220
	45-49	179	68	111	186
	50-54	180	57	123	166
	55-59	145	23	122	150
	60-64	97	5	92	125
	65-69	58	2	56	88
	70-74	31	1	31	56
	75+	35	1	35	80
	TOTAL	3832	2913	919	4161
					3021
					1140

TABLE 15B
THE INDIGENOUS POPULATION* BY SEX, AGE GROUP AND SURVIVAL OF FATHER

Age Child	Total	Male Respondents Father Alive	Father Dead	Total	Female Respondents Father Alive	Father Dead
TOTAL POPULATION						
0-4	449	443	6	386	378	8
5-9	444	428	16	383	374	9
10-14	537	499	38	496	463	33
15-19	503	431	72	532	452	80
20-24	326	258	68	418**	333	85
25-29	275	196	79	391**	282	108
30-34	204	139	65	257	147	110
35-39	211	98	113	227	102	125
40-44	158	54	104	220	69	151
45-49	179	36	143	186	30	156
50-54	180	9	171	166	10	156
55-59	145	10	135	150	4	146
60-64	97	2	95	125	3	122
65-69	58	-	58	88	1	87
70-74	31	-	31	56	-	56
75+	35	-	35	80	-	80
TOTAL	3832	2603	1229	4161	2648	1512

* includes Tuvaluans in Nauru

* includes one 'status not stated'

TABLE 16

THE INDIGENOUS CHILDREN* AGED 0-14 BY SINGLE YEARS OF AGE WHOSE MOTHER WAS IN THE SAME HOUSEHOLD,
SHOWING THE AGE OF THE MOTHER IN 1979

Mothers' Age	CHILDREN'S AGES														Total Number of Mothers	Mothers' Age	CHILDREN'S AGES														Total Number of Mothers		
	0	1	2	3	4	5	6	7	8	9	10	11	12	13			14	0	1	2	3	4	5	6	7	8	9	10	11	12		13	14
14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40	1	5	4	3	2	3	4	3	5	7	7	6	5	9	6	70
15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	41	1	3	3	3	1	4	3	4	6	7	7	7	5	9	8	71
16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42	-	2	2	1	2	2	1	3	5	5	5	7	3	7	5	50
17	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	3	43	-	2	1	1	3	1	2	2	5	6	4	5	3	7	5	47
18	3	-	1	-	-	-	-	-	-	-	-	-	-	-	-	4	44	1	1	-	-	2	2	3	1	3	5	5	5	3	5	8	44
19	4	2	3	1	1	-	-	-	-	-	-	-	-	-	-	11	45	1	-	-	1	1	2	2	1	2	4	7	5	4	5	6	41
20	4	4	3	-	1	-	-	-	-	-	-	-	-	-	-	12	46	-	-	-	1	1	1	2	1	2	4	5	6	5	6	7	41
21	8	5	4	2	-	1	-	-	-	-	-	-	-	-	-	20	47	-	-	1	-	-	-	2	2	1	3	5	6	4	4	8	36
22	11	7	5	3	-	1	-	-	-	-	-	-	-	-	-	27	48	-	-	-	-	-	-	3	2	3	1	5	5	2	2	4	27
23	11	8	5	7	3	4	1	-	-	-	-	-	-	-	-	39	49	-	-	-	-	-	-	1	2	1	2	4	3	2	3	3	22
24	14	10	9	8	6	6	3	1	1	-	-	-	-	-	-	58	50	-	-	-	-	-	1	1	2	1	2	4	3	2	3	3	20
25	13	11	9	10	5	10	5	3	1	1	-	-	-	-	-	68	51	-	-	-	-	-	-	-	-	-	1	2	4	1	4	5	19
26	15	8	9	11	10	8	6	6	1	-	-	-	-	-	-	74	52	-	-	-	-	-	1	-	-	-	1	2	3	1	2	4	14
27	11	7	8	12	9	9	3	6	5	2	1	-	-	-	-	73	53	-	-	-	-	-	-	-	-	-	1	2	1	2	2	3	11
28	9	9	10	8	7	6	7	8	4	2	-	-	-	-	-	79	54	-	-	-	-	-	-	-	-	-	-	1	-	1	2	-	7
29	12	7	5	10	7	8	9	10	8	11	3	2	1	-	-	93	55	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5
30	12	8	8	10	7	11	12	12	9	12	8	2	1	1	-	113	56	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
31	8	8	7	8	3	9	9	11	6	9	7	4	2	1	2	94	57	-	-	-	-	-	-	-	-	-	1	-	-	-	2	2	5
32	8	6	5	7	6	6	6	12	5	13	5	7	2	4	3	95	58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
33	7	5	5	6	8	5	8	8	4	13	7	6	3	5	4	94	59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	6	4	2	5	4	7	3	7	5	7	10	2	7	4	2	75	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	4	5	6	5	5	3	6	7	5	10	6	8	4	3	83	61	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	3	2	5	5	6	2	4	4	3	6	7	6	4	6	69	62	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	1	2	3	4	5	3	5	5	6	2	7	5	5	5	63	63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	1	1	3	4	4	2	3	3	6	6	6	7	5	6	5	62	64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	1	2	1	3	4	1	1	2	3	6	5	7	6	4	4	50	65+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CHILD'S MOTHER NOT IN HOUSEHOLD																		8	35	29	37	38	33	45	43	39	48	39	98	112	105	88	797
TOTAL NUMBER OF CHILDREN																		180	170	155	179	151	156	158	168	151	194	179	221	204	218	211	2695

* includes Tuvaluans in Nauru

TABLE 17

THE HOME ISLANDS OF THE INDIGENOUS POPULATION CLASSIFIED BY 5 YEAR AGE GROUPS* AND SEX AND TABULATED BY SELECTED ISLANDS AND GROUPS
 ENUMERATED IN FUNAFUTI

Age	HOME ISLANDS																								Total								
	Nanumea		Nanumaga		Niutao		Nui		Vaitupu		Nukufetau		Funafuti		Nukulaelae		Kiribati		Outside		M	F											
0-4	22	10	32	9	11	20	7	7	14	3	1	4	7	8	15	10	9	19	38	33	71	5	1	6	1	-	1	3	3	6	105	83	188
5-9	19	11	30	18	9	27	9	9	18	3	5	8	7	13	20	11	13	24	25	31	56	3	1	4	-	2	2	-	-	-	95	94	189
10-14	13	13	26	12	2	14	13	5	18	4	2	6	9	5	14	13	14	27	39	29	68	3	3	6	2	-	2	1	-	1	109	73	182
15-19	34	26	60	11	14	25	16	5	21	9	5	14	15	16	31	30	16	46	33	46	79	3	3	6	1	-	1	1	-	1	153	131	284
20-24	35	22	57	12	8	20	9	17	26	5	5	10	17	11	28	14	18	32	33	34	67	1	8	9	4	3	7	9	3	12	139	129	268
25-29	14	19	33	10	13	23	12	7	19	3	4	7	12	9	21	12	11	23	34	41	75	2	-	2	1	4	5	3	3	6	103	111	214
30-34	8	11	19	13	7	20	9	6	15	5	1	6	5	9	14	9	8	17	25	20	45	2	-	2	1	10	11	7	4	11	84	76	160
35-39	15	7	22	4	4	8	9	2	11	2	1	3	7	3	10	12	8	20	8	15	23	2	4	6	-	1	1	1	1	2	60	46	106
40-44	7	8	15	1	6	7	9	1	10	1	-	1	5	5	10	8	8	16	12	26	38	3	1	4	-	4	4	2	-	2	48	59	107
45-49	11	10	21	3	2	5	1	3	4	1	1	2	5	6	11	7	7	14	14	17	31	3	2	5	-	1	1	-	1	1	45	50	95
50-54	4	10	14	4	2	6	9	4	13	2	2	4	4	9	13	3	-	3	19	15	34	-	3	3	-	1	1	2	-	2	47	46	93
55-59	6	9	15	3	2	5	6	1	7	4	2	6	6	3	9	2	1	3	13	13	26	3	1	4	-	-	-	-	2	2	43	34	77
60-64	4	7	11	2	1	3	4	-	4	1	-	1	1	2	3	1	-	1	5	7	12	-	1	1	1	1	2	-	1	1	19	20	39
65-69	2	2	4	1	2	3	1	1	2	-	-	-	1	1	2	1	2	3	8	4	12	-	-	-	-	-	1	1	-	-	14	13	27
70-74	-	1	1	-	-	-	1	-	1	1	-	1	-	-	-	-	-	-	5	3	8	1	-	1	-	-	-	-	-	-	8	4	12
75+	1	1	2	-	-	-	1	-	1	-	-	-	-	1	1	-	-	-	6	8	14	-	1	1	-	1	1	-	1	1	8	13	21
TOTAL	195	167	362	103	83	186	116	68	184	44	29	73	101	101	202	133	115	248	317	342	659	31	29	60	11	29	40	29	19	48	1080	982	2062

* ages unadjusted

TABLE 17

THE HOME ISLANDS OF THE INDIGENOUS POPULATION CLASSIFIED BY 5 YEAR AGE GROUPS* AND SEX AND TABULATED BY SELECTED ISLANDS AND GROUPS
 ENUMERATED IN OTHER TUVALU ISLANDS

Age	HOME ISLANDS																								Total					
	Nanumea		Nanumaga		Niutao		Nui		Vaitupu		Nukufetau		Funafuti		Nukulaelae		Kiribati		Outside		M	F	P							
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F				P						
0-4	46	37	83	28	40	68	56	54	110	36	22	58	35	25	60	41	22	63	-	1	1	9	10	19	-	1	1	251	213	464
5-9	45	36	81	34	38	72	54	43	97	41	20	61	45	43	88	39	32	71	2	-	2	19	14	33	3	1	4	282	228	510
10-14	80	71	151	58	56	114	83	67	150	42	39	81	62	56	118	45	53	98	9	8	17	29	24	53	3	1	4	411	375	786
15-19	71	67	138	44	45	89	65	72	137	41	53	94	49	70	119	39	58	97	2	11	13	23	23	46	1	3	4	335	402	737
20-24	37	50	87	16	29	45	42	53	95	21	25	46	29	47	76	22	39	61	2	2	4	9	13	22	-	7	7	178	266	444
25-29	19	38	57	12	34	46	14	60	74	16	29	45	25	37	62	18	36	54	1	2	3	8	13	21	2	4	6	115	253	368
30-34	17	38	55	7	22	29	19	28	47	7	21	28	18	23	41	8	19	27	-	3	3	5	8	13	1	8	9	82	170	252
35-39	6	23	29	7	17	24	16	36	52	13	18	31	11	19	30	6	24	30	1	1	2	7	6	13	-	6	6	67	151	218
40-44	12	19	31	10	20	30	13	27	40	9	21	30	11	15	26	16	28	44	5	-	5	6	22	28	1	3	4	83	155	238
45-49	14	27	41	14	20	34	23	18	41	7	13	20	14	25	39	10	18	28	3	2	5	10	10	20	1	4	5	96	137	233
50-54	20	21	41	13	14	27	27	22	49	10	12	22	20	25	45	21	17	38	-	-	-	8	7	15	-	-	-	119	118	237
55-59	27	21	48	17	19	36	25	27	52	12	13	25	11	18	29	14	8	22	-	-	-	6	9	15	-	2	2	112	119	231
60-64	15	21	36	10	18	28	20	19	39	7	11	18	9	17	26	10	9	19	-	-	-	4	3	7	2	4	6	77	102	179
65-69	7	18	25	5	5	10	5	17	22	8	5	13	8	11	19	4	11	15	-	-	-	5	7	12	1	3	4	43	77	120
70-74	5	13	18	5	5	10	7	10	17	4	6	10	3	7	10	3	8	11	-	-	-	3	7	10	-	-	-	30	56	86
75+	12	21	33	2	5	7	4	16	20	4	8	12	6	12	18	1	4	5	-	2	2	2	4	6	1	2	3	32	74	106
TOTAL	433	521	954	282	387	669	473	569	1042	278	316	594	356	450	806	297	386	683	25	32	57	153	180	333	16	49	65	2313	2896	5209

TABLE 17

THE HOME ISLANDS OF THE INDIGENEOUS POPULATION CLASSIFIED BY 5 YEAR AGE GROUPS* AND SEX AND TABULATED BY SELECTED ISLANDS AND GROUPS
ENUMERATED IN NAURU

Age	HOME ISLANDS																Total																
	Nanumea		Nanunaga		Niutao		Nui		Vaitupu		Nukufetau		Funafuti		Nukulaelae		Kiribati		Outside		M	F	P										
0-4	6	9	15	5	7	12	3	7	10	3	3	6	9	8	17	1	4	5	9	6	15	5	2	7	-	-	-	41	46	87			
5-9	7	5	12	5	7	12	2	3	5	11	13	24	6	5	11	8	6	14	8	6	14	2	5	7	-	-	-	48	49	97			
10-14	9	4	13	3	4	7	4	2	6	4	10	14	1	7	8	4	5	9	4	5	9	1	2	3	-	-	-	30	39	69			
15-19	1	1	2	1	-	1	-	1	1	2	2	4	1	1	2	-	1	1	-	1	1	-	1	1	-	-	-	8	9	17			
20-24	8	2	10	5	2	7	10	1	11	4	2	6	4	3	7	4	3	7	4	3	7	-	-	-	-	-	-	38	15	53			
25-29	10	6	16	6	6	12	5	2	7	4	6	10	11	3	14	7	7	14	7	7	14	3	-	3	-	2	2	55	41	96			
30-34	8	8	16	4	3	7	9	2	11	10	6	16	10	10	20	10	4	14	10	4	14	1	1	2	1	1	1	62	39	101			
35-39	11	-	11	7	5	12	14	2	16	7	1	8	15	3	18	9	1	10	4	1	5	1	1	2	-	-	-	68	16	84			
40-44	5	3	8	4	2	6	3	1	4	3	-	3	7	2	9	7	-	7	6	3	9	5	2	7	-	-	-	40	13	53			
45-49	9	2	11	3	-	3	6	1	7	2	1	3	3	2	5	4	1	5	-	1	1	2	-	2	-	-	-	29	9	38			
50-54	4	1	5	2	1	3	4	1	5	1	-	1	1	-	1	-	-	1	1	2	1	1	-	1	-	-	-	14	4	18			
55-59	2	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	-	-	-	-	-	-	3	1	4			
60-64	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	1	-	-	-	-	-	-	-	1	2	3			
65-69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	1	-	-	-	-	-	-	-	2	-	2			
70-74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
75+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
TOTAL	80	41	121	45	37	82	73	36	109	39	19	58	71	55	126	54	35	89	55	39	94	21	14	35	1	4	5	-	3	3	439	283	722

TABLE 17

THE HOME ISLANDS OF THE INDIGENOUS POPULATION CLASSIFIED BY 5 YEAR AGE GROUPS* AND SEX AND TABULATED BY SELECTED ISLANDS AND GROUPS
ENUMERATED IN TUVALU

Age	HOME ISLANDS																				Total M F P													
	Nanumea		Nanumaga		Niutao		Nui		Vaitupu		Nukufetau		Funafuti		Nukulaelae		Kiribati		Overseas															
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	P													
0-4	68	47	115	37	51	88	63	61	124	39	23	62	42	33	75	51	31	82	38	34	72	14	11	25	1	1	2	3	4	7	356	296	652	
5-9	64	47	111	52	47	99	63	52	115	44	25	69	52	56	108	50	45	95	27	31	58	22	15	37	3	3	6	-	1	1	377	322	699	
10-14	93	84	177	70	58	128	96	72	168	46	41	87	71	61	132	58	67	125	48	37	85	32	27	59	5	1	6	1	-	1	520	448	968	
15-19	105	93	198	55	59	114	81	77	158	50	58	108	64	86	150	69	74	143	35	57	92	26	26	52	2	3	5	1	-	1	488	533	1021	
20-24	72	72	144	28	37	65	51	70	121	26	30	56	46	58	104	36	57	93	35	36	71	10	21	31	4	10	14	9	4	13	317	395	712	
25-29	33	57	90	22	47	69	26	67	93	19	33	52	37	46	83	30	47	77	35	43	78	10	13	23	3	8	11	3	3	6	218	364	582	
30-34	25	49	74	20	29	49	28	34	62	12	22	34	23	32	55	17	27	44	25	23	48	7	8	15	2	18	20	7	4	11	166	246	412	
35-39	21	30	51	11	21	32	25	38	63	15	19	34	18	22	40	18	32	50	9	16	25	9	10	19	-	7	7	1	2	3	127	197	324	
40-44	19	27	46	11	26	37	22	28	50	10	21	31	16	20	36	24	36	60	17	26	43	9	23	32	1	7	8	2	-	2	131	214	345	
45-49	25	37	62	17	22	39	24	21	45	8	14	22	19	31	50	17	25	42	17	19	36	13	12	25	1	5	6	-	1	1	141	187	328	
50-54	24	31	55	17	16	33	36	26	62	12	14	26	24	34	58	24	17	41	19	15	34	8	10	18	-	1	1	2	-	2	166	164	330	
55-59	33	30	63	20	21	41	31	28	59	16	15	31	17	21	38	16	9	25	13	13	26	9	10	19	-	2	2	-	4	4	155	153	308	
60-64	19	28	47	12	19	31	24	19	43	8	11	19	10	19	29	11	9	20	5	7	12	4	4	8	4	3	5	8	-	1	1	96	122	218
65-69	9	20	29	6	7	13	6	18	24	8	5	13	9	12	21	5	13	18	8	4	12	5	7	12	1	4	5	-	-	-	57	90	147	
70-74	5	14	19	5	5	10	8	10	18	5	6	11	3	7	10	3	8	11	5	3	8	4	7	11	-	-	-	-	-	-	38	60	98	
75+	13	22	35	2	5	7	5	16	21	4	8	12	6	13	19	1	4	5	6	10	16	2	5	7	2	5	4	-	1	1	40	87	127	
TOTAL	628	688	1316	385	470	855	589	637	1226	322	345	667	457	551	1008	430	501	931	342	374	716	184	209	393	27	78	105	29	25	54	3393	3878	7271	

TABLE 18

THE INDIGENOUS POPULATION AGED 15 YEARS* AND OVER BY HOME ISLAND AND SEX
SHOWING THE ISLAND ON WHICH THEY WERE USUALLY RESIDENT IN 1979

Island of Usual Residence 1979	H O M E I S L A N D S																				Total			
	Nanumea		Nanumaga		Niutao		Nui		Vaitupu		Nukufetau		Funafuti		Nukulaelae		Kiribati		Outside		M	F	P	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F				P
Nanumea	216	314	530	2	9	11	7	4	11	3	6	9	2	4	6	5	5	10	1	1	2	237	350	587
Nanumaga	7	8	15	137	211	348	8	12	20	1	2	3	1	3	4	2	-	2	-	-	156	238	394	
Niutao	2	8	10	6	8	14	201	324	525	3	6	9	1	7	8	-	3	3	-	1	1	214	369	583
Nui	7	3	10	2	1	3	11	8	19	142	207	349	-	4	4	2	2	4	-	2	2	172	243	415
Vaitupu	30	34	64	16	24	40	30	39	69	9	12	21	214	306	520	19	25	44	4	15	19	331	468	799
Nukufetau	4	10	14	-	1	1	4	7	11	1	1	2	1	4	5	144	241	385	4	1	5	160	275	435
Funafuti	135	129	264	62	57	119	80	43	123	32	20	52	71	69	140	96	76	172	215	248	463	739	707	1446
Nukulaelae	2	4	6	1	3	4	5	5	10	1	1	2	2	4	6	2	2	4	2	3	5	103	145	248
Niulakita	-	-	-	-	-	-	19	9	28	-	1	1	-	-	-	1	4	5	1	1	2	21	15	36
Kiribati	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	2	-	2
Outside	-	-	-	-	-	-	1	1	2	1	-	1	-	-	-	-	-	-	-	-	-	5	2	7
TOTAL	403	510	913	226	314	540	367	452	819	193	256	449	292	401	693	271	358	629	229	272	501	2140	2812	4952
Nauru	58	23	81	32	19	51	59	19	78	30	11	41	47	24	71	46	19	65	34	22	56	320	149	469
GENERAL TOTAL	461	533	994	258	333	591	426	471	897	223	267	490	339	425	764	317	377	694	263	294	557	2460	2961	5421

* ages unadjusted

TABLE 19

INDIGENOUS POPULATION 15 YEARS* AND OVER ENUMERATED IN TUVALU BY HOME ISLANDS BY PRINCIPAL WORK MIGRATION ISLANDS ON WHICH THEY ARE RESIDENT NOW BY LENGTH OF SUCH RESIDENCE BY SEX

Island of Residence Now	Years of Continuous Residence	HOME ISLANDS																				TOTAL		P
		Nanumea M F	Nanumaga M F	Niutao M F	Nui M F	Vaitupu M F	Mukufetau M F	Funafuti M F	Nukulaelae M F	Kiribati M F	Outside M F	M	F											
HOME ISLANDS	0-2	54	52	21	24	46	51	15	25	30	31	41	58	44	45	9	8	-	-	-	-	260	294	554
	3-5	35	36	19	33	27	40	22	9	36	51	23	43	43	57	7	10	-	-	-	-	214	279	493
	6-10	25	22	20	23	25	30	21	26	27	31	21	26	17	20	6	3	-	-	-	-	408	519	927
	11+	61	90	29	46	56	68	49	47	67	101	36	53	63	68	47	46	-	-	-	-	313	698	1011
	Life	41	114	48	85	47	135	35	100	54	92	23	61	48	58	17	53	-	-	-	-	1357	1971	3328
HOME ISLANDS TOTAL		216	314	137	211	201	324	142	207	214	306	144	241	215	248	88	120	-	-	-	-	524	459	983
FUNAFUTI	0-2	73	76	35	43	48	26	21	10	41	30	52	46	-	-	6	12	5	5	16	5	297	253	550
	3-5	53	38	26	11	27	16	7	6	22	22	36	23	-	-	9	5	3	15	2	5	185	141	326
	6-10	6	8	-	2	1	1	-	4	3	4	6	1	-	-	3	1	-	3	-	-	19	24	43
	11+	3	6	1	1	4	-	2	-	5	10	2	5	-	-	1	5	-	4	1	4	19	35	54
	Life	-	1	-	-	-	-	2	-	-	3	-	1	-	-	-	-	-	2	1	4	4	6	10
FUNAFUTI TOTAL		135	129	62	57	80	43	32	20	71	69	96	76	-	-	19	23	8	27	21	15	524	459	983
HAURU	0-2	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1
	3-5	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1
	6-10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
	11+	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HAURU TOTAL		-	-	-	-	1	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	3
OTHER TUVALU	0-2	16	25	11	14	36	34	9	10	5	9	14	9	11	11	4	6	4	13	-	1	103	137	240
	3-5	18	11	6	8	16	14	2	5	-	5	10	13	2	6	3	3	-	8	-	1	57	74	131
	6-10	4	11	2	5	4	7	4	4	-	1	4	2	2	2	1	1	-	3	-	1	14	38	52
	11+	8	11	7	13	22	20	7	9	-	8	6	-	5	5	3	3	6	17	-	1	58	93	151
	Life	6	9	1	6	6	9	-	1	2	4	3	4	1	-	1	-	5	-	-	20	38	58	
OTHER TUVALU TOTAL		52	67	27	46	84	84	18	29	7	26	31	41	14	24	9	13	10	46	-	4	252	380	632

* ages unadjusted

TABLE 19

INDIGENOUS POPULATION 15 YEARS* AND OVER ENUMERATED IN TUVALU BY HOME ISLANDS BY PRINCIPAL WORK MIGRATION
ISLANDS ON WHICH THEY ARE RESIDENT NOW BY LENGTH OF SUCH RESIDENCE BY SEX

Island of Residence Now	Years of Continuous Residence	HOME ISLANDS																TOTAL						
		Nanumea M F	Nanumaga M F	Niutao M F	Nui M F	Vaitupu M F	Nukufetau M F	Funafuti M F	Nukulaelae M F	Kiribati M F	Outside M F	M	F	P										
OVERSEAS	0-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	3-5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	6-10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11+ Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2
OVERSEAS TOTAL		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	1	4	
KIRIBATI	0-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1
	3-5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	6-10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	11+ Life	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
KIRIBATI TOTAL		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	2
TUVALU	0-2	143	153	67	81	131	111	45	45	76	70	102	118	53	56	19	26	9	18	17	6	662	684	1346
	3-5	106	85	51	52	70	70	32	20	58	78	69	79	45	63	21	18	3	23	2	6	457	494	951
	6-10	35	41	22	30	31	39	21	34	30	35	28	31	19	22	10	5	-	6	-	1	196	244	440
	11+ Life	72	107	37	60	82	88	58	56	72	119	46	64	63	73	48	54	6	21	2	6	486	648	1134
TUVALU TOTAL		403	510	226	314	367	452	193	256	292	401	271	358	229	272	116	156	18	73	25	20	2140	2812	4952

TABLE 20

THE INDIGENOUS POPULATION AGED 15 YEARS* AND OVER BY SEX LISTED BY THEIR HOME ISLANDS SHOWING THE PRINCIPAL WORK-MIGRATION ISLANDS ON WHICH THERE WAS CONTINUOUS RESIDENCE FOR 12 MONTHS OR MORE

ENUMERATED IN TUVALU

Islands of Residence Exceeding 12 Months	Sex	HOME ISLANDS																				Total F	P
		Nanumea		Nanumaga		Niutao		Nukunono		Vaitupu		Nukunono		Funafuti		Nukunono		Kiribati		Overseas			
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F		
None	59	139	59	107	84	182	51	113	63	112	34	87	7	107	19	56	1	5	376	802	1178		
Funafuti Only	126	148	42	64	71	78	34	30	47	86	96	122	71	107	20	32	1	2	515	672	1187		
Banaba Only	30	39	18	25	58	46	14	31	42	47	25	51	1	2	7	5	3	4	194	250	444		
Nauru Only	32	34	21	17	31	35	16	14	26	14	22	22	1	1	2	1	1	1	151	138	289		
Tarawa Only	38	36	11	33	14	43	31	30	28	57	12	32	3	1	8	15	8	26	153	274	427		
Overseas Only	5	2	2	2	1	3	2	1	6	7	3	1	1	1	1	6	1	1	17	22	39		
Funafuti and Banaba	12	26	7	11	11	8	1	4	10	10	4	9	18	29	3	4	2	1	66	103	169		
Funafuti and Nauru	7	8	4	3	4	1	2	2	3	3	5	2	19	13	7	1	1	1	51	34	85		
Funafuti and Tarawa	37	41	23	27	37	26	12	9	21	21	31	18	31	40	12	20	5	18	210	221	431		
Funafuti and Overseas	5	1	2	3	5	4	3	2	3	3	2	3	22	15	2	1	1	7	62	39	101		
Banaba and Nauru	1	2	3	1	8	3	4	1	4	2	6	1	1	1	4	1	1	1	30	10	40		
Banaba and Tarawa	7	8	4	2	8	10	3	5	6	5	1	4	1	1	1	2	3	3	30	39	69		
Banaba and Overseas	1	1	1	1	2	1	1	1	2	3	1	1	1	1	1	1	1	1	7	4	11		
Nauru and Tarawa	2	2	6	1	2	1	1	3	2	2	3	1	1	1	3	1	1	1	17	10	27		
Nauru and Overseas	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	3	1	4		
Tarawa and Overseas	1	1	2	1	7	1	2	1	4	2	3	1	1	1	6	4	1	1	25	10	35		
3 Includes Funafuti	32	18	20	16	17	10	11	7	20	21	16	5	49	46	14	5	1	9	180	134	314		
3 Excludes Funafuti	1	1	1	5	5	1	1	3	1	5	1	1	1	1	3	1	1	4	13	20	33		
More Than Three	8	3	3	3	2	1	5	1	4	1	5	1	7	18	5	2	1	1	40	29	69		
TOTAL	403	510	226	314	367	452	193	256	292	401	271	358	229	272	116	156	18	73	2140	2812	4952		

* ages unadjusted

TABLE 20

THE INDIGENOUS POPULATION AGED 15 YEARS* AND OVER BY SEX LISTED BY THEIR HOME ISLANDS SHOWING THE PRINCIPAL WORK-MIGRATION ISLANDS ON WHICH THERE WAS CONTINUOUS RESIDENCE FOR 12 MONTHS OR MORE

Islands of Residence Exceeding 12 Months	Sex	HOME ISLANDS																								Total	P
		ENUMERATED IN NAURU																									
		Nanumea		Nanumaga		Niutao		Nui		Vaitupu		Nukufetau		Funafuti		Nukulaelae		Kiribati		Overseas							
M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F				
None		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Funafuti Only		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Banaba Only		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Nauru Only		39	20	27	18	49	14	25	11	40	20	37	18	1	2	8	5	1	1	227	111	338	-	-			
Tarawa Only		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Overseas Only		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Funafuti and		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Banaba		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Funafuti and		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Nauru		4	1	-	-	1	1	-	-	2	-	2	-	21	12	-	-	-	-	30	14	44	-	-			
Funafuti and		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Tarawa		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Funafuti and		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Overseas		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Banaba and		1	-	1	-	2	1	1	-	2	-	1	-	-	-	1	-	-	-	9	1	10	-	-			
Nauru		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Banaba and		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Tarawa		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Banaba and		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Overseas		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Nauru and		6	-	1	1	1	2	3	-	1	2	2	-	1	-	1	-	2	-	16	7	23	-	-			
Tarawa		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Nauru and		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Overseas		2	-	1	-	2	1	-	-	-	1	-	-	-	-	1	-	-	6	2	8	-	-				
Tarawa and		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Overseas		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
3 Includes		1	1	1	-	2	-	-	-	1	-	-	1	8	7	1	-	1	-	14	11	25	-	-			
Funafuti		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
3 Excludes		4	-	-	-	2	-	1	-	1	1	3	-	-	-	1	-	-	12	1	13	-	-				
Funafuti		1	1	1	-	-	-	-	-	-	-	1	-	3	1	-	-	-	6	2	8	-	-				
More Than Three		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
TOTAL		58	23	32	19	59	19	30	11	47	24	46	19	34	22	13	5	1	4	320	149	469	-	-			

TABLE 21

THE INDIGENOUS POPULATION 15 YEARS* OF AGE AND OVER BY HOME ISLAND SHOWING THE
NUMBER OF ISLANDS ON WHICH EACH CLAIMS OR EXPECTS TO HAVE RIGHTS TO LAND** BY SEX

NUMBER OF ISLANDS WHERE LAND IS CLAIMED	SEX	HOME ISLANDS										TOTAL
		NANUMEA	NANUMAGA	NIUTAO	NUI	VAITUPU	NUKUFETAU	FUNAFUTI	NUKULAEAE	KIRIBATI	OUTSIDE	
NONE	M	-	-	-	-	-	-	-	-	-	-	-
	F	-	-	-	-	-	-	-	-	-	-	-
	P	-	-	-	-	-	-	-	-	-	-	-
HOME ISLAND ONLY	M	209	131	154	57	44	69	42	13	8	17	744
	F	282	172	170	84	57	87	62	11	30	14	969
	P	491	303	324	141	101	156	104	24	38	31	1713
HOME ISLAND AND ONE OTHER	M	119	57	109	62	111	99	50	34	8	4	653
	F	144	105	144	82	138	133	68	47	23	5	889
	P	263	162	253	144	249	232	118	81	31	9	1542
HOME ISLAND AND TWO OTHERS	M	49	22	59	36	77	70	56	41	1	4	415
	F	53	25	99	56	115	92	63	65	13	-	581
	P	102	47	158	92	192	162	119	106	14	4	996
HOME ISLAND AND THREE OTHERS	M	20	13	36	25	48	30	38	22	-	-	232
	F	22	7	28	26	73	39	42	26	6	-	269
	P	42	20	64	51	121	69	80	48	6	-	501
HOME ISLAND AND FOUR OTHERS	M	6	3	9	13	12	3	43	6	1	-	96
	F	9	5	11	8	18	7	37	7	1	1	104
	P	15	8	20	21	30	10	80	13	2	1	200
HOME ISLAND AND FIVE MORE	M	-	-	-	-	-	-	-	-	-	-	-
	F	-	-	-	-	-	-	-	-	-	-	-
	P	-	-	-	-	-	-	-	-	-	-	-
TOTAL	M	403	226	367	193	292	271	229	116	18	25	2140
	F	510	314	452	256	401	358	272	156	73	20	2812
	P	913	540	819	449	693	629	501	272	91	45	4952

* ages unadjusted

** 'Rights to Land' in this Census enquiry does not imply registration or any attempt or intention to establish a claim. The 'rights' referred to are those which any person would expect to enjoy at some time under the normal operation of traditional land holding and inheritance.

TABLE 22

THE NUMBER OF LAND CLAIMS ON EACH ISLAND CLASSIFIED BY THE HOME ISLAND
AND SEX OF CLAIMANTS AGED 15 YEARS* AND OVER

ISLAND WHERE LAND IS OWNED	SEX	HOME ISLANDS OF CLAIMANTS										TOTAL
		NANUMEA	NANUMAGA	NIUTAO	NUI	VAITUPU	NUKUFETAU	FUNAFUTI	NUKULAEAE	KIRIBATI	OUTSIDE	
NANUMEA	M	403	34	74	30	31	42	64	3	-	2	683
	F	510	58	75	30	41	42	70	-	1	2	829
NANUMAGA	M	72	226	79	19	32	21	8	4	-	-	461
	F	79	314	106	29	42	25	1	8	4	-	608
NIUTAO	M	82	51	367	51	135	26	50	19	4	1	786
	F	90	72	452	55	178	31	64	46	9	-	997
NUI	M	49	26	71	193	97	28	61	10	3	3	541
	F	67	26	99	256	144	30	59	11	-	1	693
VAITUPU	M	40	17	76	70	292	137	124	61	-	1	818
	F	40	21	84	69	401	192	137	72	1	1	1018
NUKUFETAU	M	16	8	16	9	77	271	81	33	-	2	513
	F	21	12	23	10	122	358	74	38	-	1	659
FUNAFUTI	M	1	4	21	4	56	44	229	69	-	1	429
	F	13	3	19	6	82	64	272	94	-	4	557
NUKULAEAE	M	3	1	6	4	12	30	37	116	-	1	210
	F	4	-	3	2	24	45	52	156	-	-	286
KIRIBATI	M	15	7	15	66	4	12	5	-	24	-	148
	F	16	2	28	81	6	27	4	2	126	-	292
OUTSIDE	M	21	7	13	8	13	1	18	7	1	26	115
	F	21	2	34	22	20	4	9	12	3	20	147
TOTAL	M	702	381	738	454	749	612	677	322	32	37	4704
	F	861	510	923	560	1060	818	742	439	144	29	6086
	P	1563	891	1661	1014	1809	1430	1419	761	176	66	10790

* ages unadjusted

TABLE 23

THE TYPE OF ACTIVITY IN WHICH EACH PERSON 15 YEARS* OF AGE AND OVER OF THE INDIGENOUS POPULATION IS MAINLY ENGAGED CLASSIFIED BY THE ISLAND OF USUAL RESIDENCE AND SEX

	Sex	Active Outside Cash Economy		Active in Cash Economy				Dependents							Total Persons			
		Village Life	Home Duties	Total	Employer	Employee	Own Business	Looking for Work Experienced	Never Worked	Total	Visitors	Old Age	Disabled	Inmate		Student	Resting	Total
Nanumea	M	189	-	189	-	26	-	5	1	32	2	8	-	1	4	1	16	237
	F	292	12	304	-	8	-	1	1	10	-	33	-	1	2	-	36	350
	P	481	12	493	-	34	-	6	2	42	2	41	-	2	6	1	52	587
Nanumaga	M	138	2	140	-	9	-	-	-	9	-	1	1	-	4	1	7	156
	F	200	8	208	-	6	-	-	-	6	-	12	1	-	10	1	24	238
	P	338	10	348	-	15	-	-	-	15	-	13	2	-	14	2	31	394
Nintao	M	177	-	177	-	14	-	2	1	16	3	4	3	1	11	-	21	214
	F	305	14	319	-	7	-	-	-	8	-	21	2	1	18	-	42	369
	P	482	14	496	-	21	-	2	1	24	3	25	5	1	29	-	63	583
Nui	M	151	-	151	-	16	-	-	-	16	-	5	-	-	-	-	5	172
	F	220	5	225	-	6	-	-	-	6	-	4	1	-	7	-	12	243
	P	371	5	376	-	22	-	-	-	22	-	9	1	-	7	-	17	415
Vaitupu	M	175	-	175	-	88	-	4	3	95	4	12	3	1	39	2	61	331
	F	289	64	353	-	28	-	5	2	35	2	13	2	2	61	-	80	468
	P	464	64	528	-	116	-	9	5	130	6	25	5	3	100	2	141	799
Nukufetau	M	114	-	114	-	18	-	24	-	42	1	3	-	-	-	-	4	160
	F	244	11	255	-	6	-	-	-	6	1	11	-	1	-	1	14	275
	P	358	11	369	-	24	-	24	-	48	2	14	-	1	-	1	18	435
Funafuti	M	149	1	150	-	480	4	32	12	531	6	19	3	13	6	11	58	739
	F	63	386	449	-	156	6	15	15	229	7	16	4	7	2	11	29	707
	P	212	387	599	-	636	10	84	27	760	6	35	7	20	8	11	87	1446
Nukulaelae	M	85	-	85	-	11	-	1	-	12	-	3	1	-	2	-	6	103
	F	122	7	129	-	7	-	1	1	8	-	6	2	-	2	-	8	145
	P	207	7	214	-	18	-	1	1	20	-	9	3	-	2	-	14	248
Niulakita	M	19	-	19	-	2	-	-	-	2	-	-	-	-	-	-	-	21
	F	14	-	14	-	1	-	-	-	1	-	-	-	-	-	-	-	15
	P	33	-	33	-	3	-	-	-	3	-	-	-	-	-	-	-	36
Kiribati	M	-	-	-	-	1	-	-	-	1	1	-	-	-	-	-	1	2
	F	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	2
	P	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	2
Outside	M	-	-	-	-	1	-	-	-	2	3	-	-	-	-	-	3	5
	F	-	-	-	-	1	-	-	-	2	5	-	-	-	-	-	5	7
	P	-	-	-	-	1	-	-	-	2	-	-	-	-	-	-	-	7
TOTAL	M	1197	3	1200	4	666	4	68	16	758	20	55	11	15	66	15	182	2140
	F	1749	507	2256	-	225	6	58	20	309	5	116	12	12	100	2	247	2812
	P	2946	510	3456	4	891	10	126	36	1067	25	171	23	27	166	17	429	4952
Nauru	M	-	-	-	-	312	-	-	-	312	1	-	-	-	7	-	8	320
	F	-	117	117	-	21	-	-	-	21	3	1	-	-	7	-	11	149
	P	-	117	117	-	333	-	-	-	333	4	1	-	-	14	-	19	469

* ages unadjusted

TABLE 24

THE TYPE OF ACTIVITY IN WHICH EACH PERSON 15 YEARS OF AGE AND OVER OF THE INDIGENOUS POPULATION IS MAINLY ENGAGED
BY SELECTED AREAS IN CONJUNCTION WITH SEX AND 5-YEAR AGE GROUPS*

FUNAFUTI ISLAND

Age Groups	ACTIVE OUTSIDE CASH ECONOMY						ACTIVE IN CASH ECONOMY												DEPENDENTS												Total Persons M F P					
	Village Life		Home Duties		Total Subsistence		Employer		Employee		Own Business		Looking for Work		Never Worked		Total Cash Economy		Visitor		Old Age		Disabled		Inmate		Student		Resting					Total Dependents		
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
15-19	50	19	-	65	50	84	-	-	79	27	-	-	2	3	7	13	88	43	1	-	-	-	-	1	3	1	6	2	5	-	15	4	153	131	284	
20-24	17	6	-	56	17	62	-	-	104	50	-	-	2	11	3	1	109	62	4	3	-	-	-	1	5	1	-	-	4	-	13	5	139	129	268	
25-29	12	11	-	45	12	56	-	-	73	39	-	-	12	10	1	1	86	50	1	1	-	-	-	1	2	3	-	-	2	-	5	5	103	111	214	
30-34	9	2	-	41	9	43	-	-	59	23	2	-	6	8	1	-	68	31	5	-	-	-	1	-	2	-	-	1	-	-	7	2	84	76	160	
35-39	6	5	-	26	6	31	-	-	48	9	-	1	1	5	-	-	49	15	1	-	-	-	1	3	-	-	-	-	-	-	5	-	60	46	106	
40-44	7	8	-	37	7	45	1	-	39	5	1	3	-	5	-	-	41	13	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-	48	59	107
45-49	10	7	-	33	10	40	1	-	31	2	1	-	1	5	-	-	34	7	1	1	-	-	-	-	2	-	-	-	-	-	1	3	45	50	95	
50-54	12	2	-	36	12	38	2	-	24	2	-	2	6	3	-	-	32	7	2	-	-	-	-	1	1	-	-	-	-	-	3	1	47	46	93	
55-59	13	3	-	28	13	31	-	-	23	-	-	-	3	2	-	-	26	2	3	-	1	-	-	-	1	-	-	-	-	-	4	1	43	34	77	
60-64	10	1	1	17	11	18	-	-	4	-	-	-	-	-	-	-	4	-	-	4	2	-	-	-	-	-	-	-	-	-	4	2	19	20	39	
65-69	6	2	-	6	6	8	-	-	3	-	-	-	-	-	-	-	3	-	-	5	4	-	1	-	-	-	-	-	-	-	5	5	14	13	27	
70+	5	1	-	6	5	7	-	-	1	-	-	-	-	-	-	-	1	-	-	9	10	1	-	-	-	-	-	-	-	-	10	10	16	17	33	
TOTAL	157	67	1	396	158	463	4	-	488	157	4	6	33	52	12	15	541	230	18	5	19	16	3	4	4	14	12	6	2	12	-	72	39	771	732	1503

* ages unadjusted

unequal

THE TYPE OF ACTIVITY IN WHICH EACH PERSON 15 YEARS OF AGE AND OVER OF THE INDIGENOUS POPULATION IS MAINLY ENGAGED BY SELECTED AREAS IN CONJUNCTION WITH SEX AND 5-YEAR AGE GROUPS*

OTHER TUVALU ISLANDS

[illegible]

TABLE 24

THE TYPE OF ACTIVITY IN WHICH EACH PERSON 15 YEARS OF AGE AND OVER OF THE INDIGENOUS POPULATION IS MAINLY ENGAGED
BY SELECTED AREAS IN CONJUNCTION WITH SEX AND 5-YEAR AGE GROUPS*

TOTAL TUVALU

Age Groups	ACTIVE OUTSIDE CASH ECONOMY										ACTIVE IN CASH ECONOMY										DEPENDENTS										Total Persons														
	Village Life					Home Duties					Total Substance					Employer					Employee					Own Business								Looking for Work					Never Worked					Total Cash Economy	
	M	F	M	F	P	M	F	M	F	P	M	F	M	F	P	M	F	M	F	P	M	F	M	F	P	M	F	M	F	P	M	F	M	F	P	M	F	P							
15-19	316	308	-	73	316	381	-	-	-	-	88	31	-	-	-	2	5	9	16	99	52	1	-	-	1	2	3	1	63	97	5	-	73	100	488	533	1021								
20-24	166	238	-	62	171	300	-	-	-	-	125	69	-	-	-	4	14	5	3	129	86	4	3	-	-	2	6	1	3	3	4	-	17	9	317	395	712								
25-29	87	228	-	59	88	287	-	-	-	-	103	61	-	-	-	21	10	1	1	124	72	2	1	-	-	1	2	3	-	-	2	-	6	5	218	364	582								
30-34	65	158	-	47	59	205	-	-	-	-	79	30	2	-	-	11	9	1	-	99	39	5	-	-	-	2	-	-	-	-	1	-	8	2	166	246	412								
35-39	46	139	-	35	48	174	-	-	-	-	71	16	-	1	-	5	5	-	-	74	22	1	-	-	1	1	3	-	-	-	-	-	5	1	127	197	324								
40-44	58	158	-	38	58	196	1	-	-	-	67	8	1	3	-	3	5	-	-	72	16	-	-	-	1	-	-	1	-	-	-	1	2	131	214	345									
45-49	86	138	-	40	85	176	1	-	-	-	48	2	1	-	-	3	3	-	-	54	7	1	1	-	1	1	-	2	-	-	-	2	4	141	187	328									
50-54	104	109	-	40	104	151	2	-	-	-	43	5	-	2	-	13	5	-	-	58	10	2	-	-	-	1	1	-	-	-	-	-	4	3	166	164	330								
55-59	112	115	-	30	112	145	-	-	-	-	30	2	-	-	-	5	2	-	-	35	4	3	-	2	1	1	-	1	-	-	2	1	8	4	155	153	308								
60-64	77	80	1	32	77	112	-	-	-	-	7	1	-	-	-	1	-	-	-	9	1	1	-	8	9	1	-	-	-	-	-	-	10	9	96	122	218								
65-69	41	52	1	24	42	76	-	-	-	-	4	-	-	-	-	-	-	-	-	4	-	-	-	9	12	1	2	-	-	-	1	-	11	14	57	90	147								
70+	39	26	1	27	40	53	-	-	-	-	1	-	-	-	-	-	-	-	-	1	-	-	-	36	94	1	-	-	-	-	-	-	37	94	78	147	225								
TOTAL	1197	1749	3	507	1200	2256	4	-	666	225	4	6	68	58	16	20	758	309	20	5	55	116	11	12	15	12	66	100	15	2	182	247	2140	2812	4952										

TABLE 25A

THE INDUSTRY IN WHICH INDIGENOUS PERSONS 15 YEARS OF AGE AND OVER ARE EMPLOYED BY 5-YEAR AGE GROUPS*
AND SEX IN ETHNIC GROUPS BY SELECTED AREAS OF USUAL RESIDENCE

Industry	AGE GROUPS														TOTAL	
	15-19		20-24		25-29		30-34		35-39		40-49		50-59		60+	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
1. Employment on FUNAFUTI																
<u>Agriculture</u>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- Farming	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- Services	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- Fishing	-	-	1	-	-	-	3	-	-	-	4	-	-	-	9	-
- Mining	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	-
<u>Manufacture</u>	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-
- Food	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- Clothes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- Furniture	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- Printing	5	12	7	12	4	8	2	1	1	2	1	-	-	-	20	55
- Boatyard	-	-	2	-	1	-	-	-	-	-	-	-	-	-	5	5
- Electricity	6	-	4	-	-	-	1	-	-	-	2	-	-	-	13	13
- Water	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Utilities</u>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Construction</u>	40	-	43	-	34	-	19	-	10	-	24	-	19	-	191	191
<u>Commerce</u>	1	3	3	4	2	3	2	4	1	1	2	1	2	1	14	30
- Wholesale	1	1	2	1	-	2	4	1	1	-	3	1	3	1	15	22
- Retail	-	-	1	2	-	1	-	3	-	-	2	2	1	-	4	13
- Hotels, Bars, etc	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Transport</u>	-	-	-	-	1	1	-	-	4	-	3	-	1	-	10	11
- Land	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- Water	1	-	7	-	4	-	6	-	6	-	1	-	2	-	27	27
- Air	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- Services	3	-	5	2	3	1	1	1	2	-	2	-	2	-	18	21
- Communications	1	-	2	1	4	-	-	-	2	-	11	-	7	-	27	29
<u>Companies</u>	-	-	1	1	-	-	1	-	-	-	2	-	-	-	4	6
- Banks	-	-	3	-	-	-	-	-	1	-	-	-	-	-	4	5
- Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	5
<u>Community Services</u>	18	4	11	13	13	12	12	5	11	-	8	-	6	-	81	115
- Administration	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- Sanitation	-	-	-	-	2	3	-	-	1	-	1	-	-	-	4	10
- Education	-	-	1	5	1	6	2	5	1	2	5	1	3	2	13	36
- Health	-	-	1	1	1	1	1	-	1	-	1	-	1	-	7	9
- Missions	1	-	3	3	1	-	1	-	1	2	-	-	-	-	6	13
- Entertainment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- Libraries	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- Repairs Services	2	-	4	2	1	1	-	-	1	-	1	-	-	-	1	1
- Personal Services	-	-	-	-	-	-	4	-	-	-	-	-	-	-	13	23
Not Stated	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	79	27	102	50	73	39	58	23	47	9	73	10	47	4	487	649

* ages unadjusted

TABLE 25A

THE INDUSTRY IN WHICH INDIGENOUS PERSONS 15 YEARS OF AGE AND OVER ARE EMPLOYED BY 5-YEAR AGE GROUPS*
AND SEX IN ETHNIC GROUPS BY SELECTED AREAS OF USUAL RESIDENCE

Industry	AGE GROUPS																M	F	TOTAL
	15-19		20-24		25-29		30-34		35-39		40-49		50-59		60+				
	M	F	M	F	M	F	M	F	M	F	M	F	M	F					
2. Employment on OTHER TUVALU ISLANDS																			
<u>Agriculture</u>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- Farming	5	1	6	1	3	-	1	-	1	1	-	4	-	2	-	-	22	2	24
- Services	-	-	-	-	3	-	-	-	-	-	-	1	-	-	-	-	5	-	5
- Fishing	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- Mining	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Manufacture</u>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- Food	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- Clothes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- Furniture	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- Printing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- Boatyard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Utilities</u>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- Electricity	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-	1
- Water	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Construction</u>	-	-	3	-	7	-	3	-	1	-	-	8	-	10	-	-	33	-	33
<u>Commerce</u>	-	-	2	6	3	3	1	1	2	-	-	-	-	5	-	-	19	3	3
- Wholesale	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	11	-	30
- Retail	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- Hotels, Bars, etc	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Transport</u>	-	-	-	-	-	-	-	-	1	-	-	1	-	1	-	-	3	-	3
- Land	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	3
- Water	-	-	-	-	1	-	2	-	-	-	-	-	-	-	-	-	3	-	3
- Air	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- Services	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	2	-	2
- Communications	-	-	1	-	3	-	3	-	1	-	-	2	-	-	-	-	10	-	10
<u>Companies</u>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- Banks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Community Services</u>	3	-	6	4	3	3	9	1	7	3	-	14	-	6	1	2	50	12	62
- Administration	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- Sanitation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- Education	-	-	2	3	7	10	1	5	1	2	-	4	1	1	-	-	16	21	37
- Health	-	-	1	1	2	-	-	-	5	2	-	2	2	1	3	-	9	10	19
- Missions	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	2	2	2
- Entertainment	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1
- Libraries	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
- Repair Services	-	-	-	-	-	2	-	-	-	1	-	-	-	-	-	-	-	-	-
- Personal Services	-	2	-	2	-	1	1	1	2	-	-	3	-	1	1	-	7	3	3
Not Stated	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	14
TOTAL	9	4	22	19	30	22	23	7	24	8	45	3	27	5	4	1	184	69	253

TABLE 25A

THE INDUSTRY IN WHICH INDIGENOUS PERSONS 15 YEARS OF AGE AND OVER ARE EMPLOYED BY 5-YEAR AGE GROUPS*
AND SEX IN ETHNIC GROUPS BY SELECTED AREAS OF USUAL RESIDENCE

Industry	AGE GROUPS												TOTAL F	M	P				
	15-19 M F	20-24 M F	25-29 M F	30-34 M F	35-39 M F	40-49 M F	50-59 M F	60+ M F											
3. Indigenous in Employment - TOTAL FOR TIVALLU																			
<u>Agriculture</u>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
- Farming	5	1	3	1	1	4	2	-	22	2	24	-	-	-	-	-	-		
- Services	-	6	3	-	-	5	-	-	14	-	14	-	-	-	-	-	-		
- Fishing	-	1	3	3	2	5	-	-	1	-	1	-	-	-	-	-	-		
- Mining	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
<u>Manufacture</u>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
- Food	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
- Clothes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
- Furniture	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
- Printing	5	12	4	8	1	2	-	-	20	35	55	-	-	-	-	-	-		
- Boatyard	-	2	1	-	2	-	-	-	5	-	5	-	-	-	-	-	-		
<u>Utilities</u>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
- Electricity	6	4	-	-	-	3	-	-	14	-	14	-	-	-	-	-	-		
- Water	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
<u>Construction</u>	40	46	41	22	11	32	29	3	224	-	224	-	-	-	-	-	-		
<u>Commerce</u>	1	3	2	4	1	2	1	1	14	19	33	-	-	-	-	-	-		
- Wholesale	2	4	3	2	3	7	8	2	34	18	52	-	-	-	-	-	-		
- Retail	-	1	1	3	-	2	1	-	4	9	13	-	-	-	-	-	-		
- Hotels, Bars, etc	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
<u>Transport</u>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
- Land	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
- Water	1	7	5	8	5	4	2	1	13	1	14	-	-	-	-	-	-		
- Air	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
- Services	3	5	3	1	3	3	2	-	20	3	23	-	-	-	-	-	-		
- Communications	1	3	7	3	3	13	7	-	37	2	39	-	-	-	-	-	-		
<u>Companies</u>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
- Banks	-	1	-	1	1	2	-	-	4	2	6	-	-	-	-	-	-		
- Other	-	3	-	-	-	-	-	-	4	1	5	-	-	-	-	-	-		
<u>Community Services</u>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
- Administration	21	17	16	21	18	22	12	4	131	46	177	-	-	-	-	-	-		
- Sanitation	-	-	9	1	1	5	1	-	1	-	1	-	-	-	-	-	-		
- Education	-	2	4	7	2	7	4	-	20	27	47	-	-	-	-	-	-		
- Health	-	2	6	2	6	7	5	-	22	33	55	-	-	-	-	-	-		
- Missions	1	1	1	2	1	1	1	-	9	2	11	-	-	-	-	-	-		
- Entertainment	-	4	3	1	1	-	-	-	7	7	14	-	-	-	-	-	-		
- Libraries	-	-	1	-	-	-	-	-	1	3	4	-	-	-	-	-	-		
- Repair Services	-	-	1	-	-	-	-	-	20	17	37	-	-	-	-	-	-		
- Personal Services	2	4	1	5	3	4	1	-	1	-	1	-	-	-	-	-	-		
Not Stated	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
TOTAL	88	31	124	69	103	61	81	30	71	17	118	13	74	9	12	1	671	231	902

TABLE 25A

THE INDUSTRY IN WHICH INDIGENOUS PERSONS 15 YEARS OF AGE AND OVER ARE EMPLOYED BY 5-YEAR AGE GROUPS*
AND SEX IN ETHNIC GROUPS BY SELECTED AREAS OF USUAL RESIDENCE

Industry	AGE GROUPS												TOTAL	
	15-19 M F	20-24 M F	25-29 M F	30-34 M F	35-39 M F	40-49 M F	50-59 M F	60+ M F	M	F				
4. Persons of Non-Pacific Origin in Employment - TOTAL FOR TUVALU														
<u>Agriculture</u>	-	-	1	1	-	-	-	-	2	-	2			
- Farming	-	-	-	-	1	-	-	-	1	-	1			
- Services	-	-	-	1	-	-	-	-	1	-	1			
- Fishing	-	-	-	-	-	-	-	-	-	-	-			
- Phosphate	-	-	-	-	-	-	-	-	-	-	-			
- Electricity	-	-	-	-	-	-	-	-	-	-	-			
<u>Mining</u>	-	-	-	-	-	-	-	-	-	-	-			
<u>Utilities</u>	-	-	-	-	-	-	-	-	-	-	-			
<u>Construction</u>	-	1	-	4	-	-	-	-	5	-	5			
<u>Commerce</u>	-	-	1	-	1	-	-	-	2	-	2			
- Wholesale	-	-	-	-	-	-	-	-	-	-	-			
- Retail	-	-	-	-	-	-	-	-	-	-	-			
- Hotels and Bars	-	-	-	-	-	-	-	-	-	-	-			
<u>Transport</u>	-	-	-	-	-	-	-	-	-	-	-			
- Land	-	-	-	-	1	-	-	-	1	-	1			
- Water	-	-	-	-	-	-	-	-	-	-	-			
- Air	-	-	-	-	-	-	-	-	-	-	-			
- Services	-	-	1	1	-	-	-	-	2	-	2			
- Communications	-	-	-	1	-	-	-	-	1	-	1			
<u>Companies</u>	-	-	-	-	-	-	-	1	1	-	1			
- Banks	-	-	-	-	-	-	-	-	1	-	1			
- Other	-	-	-	-	-	-	1	-	1	-	1			
<u>Community Services</u>	-	-	2	1	1	1	-	-	5	-	5			
- Administration	-	-	2	-	1	-	-	-	4	3	7			
- Education	-	-	-	-	-	-	1	-	-	-	-			
- Health	-	-	-	-	-	-	-	-	-	-	-			
- Missions	-	1	1	-	1	-	-	-	3	-	3			
- Libraries	-	-	-	-	-	1	-	-	-	1	1			
- Personal Services	-	-	-	-	-	-	-	-	-	-	-			
Not Stated	-	-	-	-	-	1	-	-	1	-	1			
TOTAL	-	2	8	9	6	2	2	1	30	4	34			

TABLE 25A

THE INDUSTRY IN WHICH INDIGENOUS PERSONS 15 YEARS OF AGE AND OVER ARE EMPLOYED BY 5-YEAR AGE GROUPS*
AND SEX IN ETHNIC GROUPS BY SELECTED AREAS OF USUAL RESIDENCE

Industry	AGE GROUPS														TOTAL	
	15-19	20-24	25-29	30-34	35-39	40-49	50-59	60+	M	F	P	M	F	P	M	F
5. All Persons in Employment - TOTAL FOR TUVALU																
<u>Agriculture</u>																
- Farming	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
- Services	5	6	3	1	2	4	2	1	23	2	25	23	2	25	23	2
- Fishing	1	1	3	4	2	5	1	1	15	1	15	15	1	15	15	1
- Phosphate	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<u>Mining</u>																
- Food	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
- Clothes	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
- Furniture	5	7	4	2	1	1	1	1	20	35	55	20	35	55	20	35
- Printing	1	2	1	1	2	1	1	1	5	5	5	5	5	5	5	5
- Boatyard	6	4	1	1	1	3	1	1	14	14	14	14	14	14	14	14
- Electricity	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
- Water	40	47	41	26	11	32	29	3	229	19	35	229	19	35	229	19
<u>Construction</u>																
- Wholesale	1	3	3	4	2	1	2	1	16	16	16	16	16	16	16	16
- Retail	2	4	3	5	3	7	8	1	34	34	34	34	34	34	34	34
- Hotels and Bars	1	1	1	1	1	2	1	1	4	9	13	4	9	13	4	9
<u>Transport</u>																
- Land	1	1	1	1	1	4	2	1	13	1	14	13	1	14	13	1
- Water	1	7	5	8	7	1	2	1	31	1	31	31	1	31	31	1
- Air	1	1	4	1	1	1	1	1	22	3	25	22	3	25	22	3
- Services	3	5	2	1	3	13	7	1	38	2	40	38	2	40	38	2
- Communications	1	3	1	4	3	1	1	1	5	5	7	5	5	7	5	5
- Banks	1	1	1	1	1	2	1	1	5	1	6	5	1	6	5	1
- Other	1	3	1	1	1	1	1	1	136	46	182	136	46	182	136	46
<u>Community Services</u>																
- Administration	21	17	18	15	19	23	12	4	1	1	1	1	1	1	1	1
- Sanitation	1	2	4	1	1	5	2	1	24	30	54	24	30	54	24	30
- Education	1	2	6	1	3	7	4	1	22	33	55	22	33	55	22	33
- Health	1	2	1	2	2	1	1	1	12	2	14	12	2	14	12	2
- Missions	1	4	3	1	1	1	1	1	7	7	14	7	7	14	7	7
- Entertainment	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
- Libraries	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
- Repair Services	2	4	4	2	3	4	1	1	20	17	37	20	17	37	20	17
- Personal Services	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Not Stated																
TOTAL	88	126	111	63	77	120	76	13	701	235	936	701	235	936	701	235

TABLE 25B

THE INDUSTRY IN WHICH INDIGENOUS PERSONS 15 YEARS OF AGE AND OVER ARE UNEMPLOYED BY 5-YEAR AGE GROUPS*
AND SEX BY SELECTED AREAS OF USUAL RESIDENCE

Industry	AGE GROUPS														TOTAL	
	15-19 M F	20-24 M F	25-29 M F	30-34 M F	35-39 M F	40-49 M F	50-59 M F	60+ M F	M	F						
Previously Employed Indigenous Persons Seeking Work (unemployed) - TOTAL FOR TUVALU																
Mining																
Funafuti	-	-	-	1	1	-	1	-	5	-						
Other Tuvalu Islands	-	-	2	2	-	3	8	-	18	-						
Manufacture																
Printing - Funafuti	1	-	1	-	-	-	-	-	1	1						
Boatyard - Funafuti	-	-	1	-	-	-	-	-	1	-						
- Other Tuvalu Islands	-	-	-	-	-	-	-	-	-	-						
Utilities																
Electricity - Funafuti	-	-	-	-	-	1	-	-	1	-						
Construction																
Commerce																
Wholesale																
Retail	-	2	-	-	-	-	-	-	-	13						
- Other Tuvalu Islands	-	-	6	4	1	-	-	-	-	13						
Bars and Hotels - Funafuti	-	-	1	-	-	1	-	-	1	1						
Transport																
Land	-	-	-	-	-	-	-	-	-	-						
Water	-	2	8	5	-	-	-	-	15	-						
- Funafuti	-	-	-	-	-	-	-	-	13	-						
- Other Tuvalu Islands	-	2	7	2	2	-	-	-	-	1						
Services	-	-	1	-	-	-	-	-	-	-						
- Funafuti	-	-	-	-	-	-	-	-	-	-						
- Other Tuvalu Islands	-	-	-	-	-	-	-	-	-	-						
Communication - Funafuti	-	-	1	2	-	1	2	-	2	3						
- Other Tuvalu Islands	-	-	-	-	-	-	-	-	1	-						
Community Services																
Administrations	-	-	1	1	-	-	3	-	3	5						
- Funafuti	-	-	-	-	-	-	-	-	-	1						
- Other Tuvalu Islands	-	-	-	-	1	-	1	-	1	2						
Education	-	-	1	-	-	-	-	-	-	3						
- Funafuti	-	-	-	1	-	-	-	-	1	2						
- Other Tuvalu Islands	-	-	-	-	-	5	1	-	1	20						
Health	-	-	-	-	2	-	1	-	1	1						
- Funafuti	-	-	-	-	-	-	-	-	-	2						
- Other Tuvalu Islands	-	-	-	-	-	-	-	-	-	-						
Missions	-	-	-	-	-	-	-	-	-	-						
- Funafuti	-	-	1	-	-	-	-	-	-	1						
- Other Tuvalu Islands	-	-	-	-	-	-	-	-	-	1						
Personal Services	1	-	-	1	-	-	-	-	1	2						
- Funafuti	-	1	-	-	-	-	-	-	-	2						
- Other Tuvalu Islands	-	-	-	-	-	-	-	-	-	-						
Not Stated	-	-	-	-	-	-	1	-	1	1						
TOTAL	2	5	4	14	21	10	11	9	68	126						

* ages unadjusted

TABLE 26

THE OCCUPATIONS OF THE PERSONS 15 YEARS* OF AGE AND OVER IN EMPLOYMENT IN TUVALU SHOWING
THEIR ISLANDS OF USUAL RESIDENCE - INDIGENOUS AND NON-INDIGENOUS DISTINGUISHED

Occupations	ISLAND OF USUAL RESIDENCE									Total
	Nanumea	Nanumaga	Niutao	Nui	Vaitupu	Nukufetau	Funafuti	Nukulaelae	Niulakita	
Professional and Technical										
Meteorological Staff										
Indigenous	1	-	-	1	-	-	9	-	1	12
Non-Indigenous	-	-	-	-	-	-	1	-	-	1
Civil Engineers										
Indigenous	-	-	-	-	-	-	1	-	-	1
Non-Indigenous	-	-	-	-	-	-	4	-	-	4
Electrical Engineers										
Indigenous	-	-	-	-	-	-	1	-	-	1
Non-Indigenous	-	-	-	-	-	-	-	-	-	-
Mechanical Engineers										
Indigenous	-	-	-	-	-	-	5	-	-	5
Non-Indigenous	-	-	-	-	-	-	-	-	-	-
Surveyors										
Indigenous	-	-	-	-	-	-	6	-	-	6
Non-Indigenous	-	-	-	-	-	-	-	-	-	-
Draughtsmen										
Indigenous	-	-	-	-	-	-	2	-	-	2
Electrical Technicians										
Indigenous	1	-	-	-	-	-	2	-	-	3
Non-Indigenous	-	-	-	-	-	-	2	-	-	2
Mech & Aero Technicians										
Indigenous	-	-	-	-	-	-	-	-	-	-
Non-Indigenous	-	-	-	-	-	-	-	-	-	-
Ships Officers										
Indigenous	-	-	-	-	-	-	4	-	-	4
Non-Indigenous	-	-	-	-	-	-	1	-	-	1
Ships Engineers										
Indigenous	-	-	-	-	-	-	3	-	-	3
Non-Indigenous	-	-	-	-	-	-	-	-	-	-
Agricultural Officers										
Indigenous	-	-	-	-	-	1	-	-	-	1
Non-Indigenous	-	-	-	-	-	-	-	-	-	-
Doctor										
Indigenous	-	-	-	-	-	-	2	-	-	2
Medical Assistants										
Indigenous	-	-	-	1	-	1	3	-	-	5
Dentists										
Indigenous	-	-	-	-	-	-	4	-	-	4
Non-Indigenous	-	-	-	-	-	-	-	-	-	-

* ages unadjusted

THE OCCUPATIONS OF THE PERSONS 15 YEARS* OF AGE AND OVER IN EMPLOYMENT IN TUVALU SHOWING THEIR ISLANDS OF USUAL RESIDENCE - INDIGENOUS AND NON-INDIGENOUS DISTINGUISHED

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THE OCCUPATIONS OF THE PERSONS 15 YEARS* OF AGE AND OVER IN EMPLOYMENT IN TUVALU SHOWING
THEIR ISLANDS OF USUAL RESIDENCE - INDIGENOUS AND NON-INDIGENOUS DISTINGUISHED

Occupations	ISLAND OF USUAL RESIDENCE									Total
	Nanumea	Nanumaga	Niutao	Nui	Vaitupu	Nukufetau	Funafuti	Nukulaelae	Niulakita	
<u>Administration and Managerial</u>										
Legislators Indigenous	1	-	1	-	1	1	7	1	-	12
Administrators Indigenous	-	-	-	-	-	-	12	-	-	12
Non-Indigenous	-	-	-	-	-	-	2	-	-	2
Managers Indigenous	-	-	-	-	-	-	-	-	-	-
Non-Indigenous	-	-	-	-	-	-	-	-	-	-
<u>Clerical and Related</u>										
Executive Officers Indigenous	1	1	4	1	4	1	12	1	-	25
Non-Indigenous	-	-	-	-	-	-	-	-	-	-
Typists Indigenous	2	-	-	-	1	-	5	1	-	9
Non-Indigenous	-	-	-	-	-	-	-	-	-	-
Cashiers Indigenous	-	-	-	-	-	-	23	-	-	23
Postmaster & FSO's Indigenous	-	-	-	-	-	-	4	-	-	4
Bus Conductors Indigenous	-	-	-	-	-	-	1	-	-	1
Postal Clerks Indigenous	-	-	-	-	-	-	16	-	-	16
Radio Operators Indigenous	1	2	1	1	1	1	8	1	1	17
Clerks Indigenous	-	-	-	1	2	-	73	1	-	77
Travel Clerks Indigenous	-	-	-	-	-	-	-	-	-	-
<u>Sales Workers</u>										
Managers Indigenous	-	-	-	1	2	2	10	2	-	17
Non-Indigenous	-	-	-	-	-	-	-	-	-	2
Working Owners Indigenous	-	-	-	-	-	-	2	-	-	-
Non-Indigenous	-	-	-	-	-	-	-	-	-	-
Supervisors Indigenous	-	-	-	-	-	-	3	-	-	3
Non-Indigenous	-	-	-	-	-	-	-	-	-	-

TABLE 26

THE OCCUPATIONS OF THE PERSONS 15 YEARS* OF AGE AND OVER IN EMPLOYMENT IN TUVALU SHOWING
THEIR ISLANDS OF USUAL RESIDENCE - INDIGENOUS AND NON-INDIGENOUS DISTINGUISHED

Occupations	ISLAND OF USUAL RESIDENCE										Total
	Nanumea	Nanumaga	Niutao	Nui	Vaitupu	Nukufetau	Funafuti	Nukulaelae	Niulakita		
Sales Workers	5	2	3	2	9	3	29	2	-	55	
Indigenous	-	-	-	-	-	-	-	-	-	-	
Service Workers	-	-	-	-	-	-	14	-	-	14	
Managers	-	-	-	-	-	-	-	-	-	-	
Indigenous	-	-	-	-	4	-	9	-	-	13	
Non-Indigenous	-	-	-	-	-	-	-	-	-	-	
Cooks & Stewards	-	-	-	-	-	-	-	-	-	-	
Indigenous	-	-	-	-	5	-	19	-	-	25	
House Workers	-	-	-	1	-	-	-	-	-	-	
Indigenous	-	-	-	-	-	-	-	-	-	-	
Policemen	1	1	1	2	3	1	15	1	-	25	
Indigenous	-	-	-	-	-	-	-	-	-	-	
Warders, Watchmen	2	-	-	-	1	1	4	-	-	8	
Indigenous	-	-	-	-	-	-	-	-	-	-	
Non-Indigenous	-	-	-	-	-	-	-	-	-	-	
Agriculture and Fishing	-	-	-	-	-	-	-	-	-	-	
Agricultural Workers/Officers	1	1	1	1	15	-	-	-	-	19	
Indigenous	-	-	-	-	3	-	-	-	-	3	
Non-Indigenous	-	-	-	-	-	-	-	-	-	-	
Fishermen	-	-	-	-	-	5	6	-	-	11	
Indigenous	-	-	-	-	-	-	1	-	-	1	
Non-Indigenous	-	-	-	-	-	-	-	-	-	-	
Production Workers	-	-	-	-	-	-	-	-	-	-	
Foremen	-	-	-	-	-	-	-	-	-	-	
Indigenous	-	-	-	1	4	-	5	1	-	11	
Non-Indigenous	-	-	-	-	-	-	-	-	-	1	
Bakers	-	-	-	-	-	-	-	-	-	-	
Indigenous	-	-	-	-	-	-	-	-	-	-	
Dressmakers	-	-	-	-	-	-	-	-	-	-	
Indigenous	-	-	-	-	-	-	1	-	-	1	
Woodworkers	-	-	-	-	-	-	-	-	-	-	
Indigenous	-	-	-	-	-	-	2	-	-	2	
Motor Mechanic	-	-	-	-	-	-	-	-	-	-	
Indigenous	-	-	-	-	-	-	3	-	-	3	
Electrician	-	-	-	-	-	-	-	-	-	-	
Indigenous	-	-	-	-	1	-	2	-	-	3	
Non-Indigenous	-	-	-	-	-	-	-	-	-	-	
Cinema Operators	-	-	-	-	-	-	-	-	-	-	
Indigenous	1	-	-	-	-	-	-	-	-	1	
Non-Indigenous	-	-	-	-	-	-	3	-	-	4	

TABLE 26

THE OCCUPATIONS OF THE PERSONS 15 YEARS* OF AGE AND OVER IN EMPLOYMENT IN TUVALU SHOWING
THEIR ISLANDS OF USUAL RESIDENCE - INDIGENOUS AND NON-INDIGENOUS DISTINGUISHED

Occupations	ISLAND OF USUAL RESIDENCE									Total
	Nanumea	Nanumaga	Niutao	Nui	Vaitupu	Nukufetau	Funafuti	Nukulaelae	Niulakita	
Plumbers Indigenous	-	-	1	-	1	-	4	-	-	6
Printers Indigenous	-	-	-	-	-	-	-	-	-	-
Builders & Carpenters Indigenous	3	1	1	1	10	1	79	-	-	96
Engine Operators Indigenous	-	-	-	-	-	-	2	-	-	2
Seamen Indigenous	2	-	-	1	-	-	15	-	-	18
Greasers Indigenous	-	-	-	-	-	-	2	-	-	2
Drivers Indigenous	-	-	-	-	4	-	11	-	-	15
Labourers Indigenous	2	-	-	1	23	-	162	1	-	189
Non-Indigenous	-	-	-	-	-	-	1	-	-	1
Not Stated Non-Indigenous	-	-	-	-	-	-	1	-	-	1
TOTAL Indigenous Non-Indigenous	34 -	15 -	21 -	22 -	116 10	24 -	649 24	18 -	3 -	902 34
ALL PERSONS	34	15	21	22	126	24	673	18	3	936

TABLE 27A

THE OCCUPATIONS OF THE PERSONS 15 YEARS OF AGE AND OVER IN EMPLOYMENT SHOWN BY 5-YEAR AGE GROUPS*
AND SEX IN ETHNIC GROUPS BY SELECTED AREAS OF USUAL RESIDENCE

Occupations	AGE GROUPS										TOTAL	
	15-19 M F	20-24 M F	25-29 M F	30-34 M F	35-39 M F	40-49 M F	50-59 M F	60+ M F	M	F	M	F
1. Indigenous in Employment on FUNAFUTI												
<u>Professional and Technical</u>												
Meteorological Staff	-	1	-	1	1	5	1	-	7	2	9	1
Civil Engineers	-	1	-	-	-	1	-	-	1	-	1	1
Electrical Engineers	-	1	1	1	-	2	-	-	5	-	5	5
Mechanical Engineers	-	1	2	1	1	-	1	-	6	-	6	2
Surveyors	-	1	1	1	-	-	-	-	2	-	2	2
Draftsmen	-	1	1	1	-	-	-	-	4	-	4	3
Electrical Technicians	-	1	1	1	-	-	-	-	2	-	2	2
Mech and Aero Technicians	-	1	1	1	-	-	-	-	4	-	4	3
Ships Officers	-	1	1	1	-	-	-	-	3	-	3	2
Ships Engineers	-	1	1	1	-	-	-	-	2	-	2	3
Agricultural Officers	-	1	1	1	-	-	-	-	1	-	1	2
Doctors	-	1	1	1	-	-	-	-	2	-	2	3
Medical Assistants	1	1	1	1	-	-	-	-	2	-	2	4
Dentists	1	1	1	1	-	-	-	-	2	-	2	3
Pharmacists	-	1	1	1	-	-	-	-	3	-	3	8
Trained Nurses	-	1	1	1	-	-	-	-	2	-	2	7
Health Workers	1	1	1	1	1	2	1	-	1	-	1	1
Accountants	-	1	1	1	-	-	-	-	1	-	1	-
Magistrates	-	1	1	1	-	-	-	-	1	-	1	-
Teachers Higher	-	1	1	1	-	-	-	-	1	-	1	-
Teachers Primary	-	1	2	2	-	-	-	-	2	-	2	8
Educational Administration	-	1	1	1	-	-	-	-	1	-	1	1
Ministers of Religion	-	1	1	1	-	-	-	-	1	-	1	8
Religions Workers	1	1	1	1	1	1	1	-	6	-	6	5
Journalists	-	1	1	1	-	-	-	-	1	-	1	1
Librarians	-	1	1	1	-	-	-	-	1	-	1	-
Social Workers	-	1	1	1	-	-	-	-	1	-	1	-
Personnel Officers	-	1	1	1	-	-	-	-	1	-	1	-
Translators	-	1	1	1	-	-	-	-	1	-	1	-
<u>Administration and Managerial</u>												
Legislators	-	1	1	1	1	3	3	1	6	1	7	7
Administrators	-	1	1	1	1	3	1	-	10	2	12	12
Managers	-	1	1	1	-	-	-	-	1	-	1	-
<u>Clerical and Related</u>												
Executive Officers	1	2	2	1	2	2	-	1	10	2	12	12
Typists	-	4	2	2	-	2	-	-	9	5	23	5
Cashiers	-	1	1	1	1	-	1	-	4	1	4	4
Postmasters and FSO's	-	1	1	1	-	-	-	-	1	1	1	1
Bus Conductor	-	1	1	1	-	-	-	-	1	1	1	1
Postal Clerks	6	4	2	-	1	1	-	-	15	1	16	16
Radio Operators	2	10	3	2	1	2	-	-	8	5	8	8
Clerks	13	22	14	2	1	2	2	-	22	51	73	73

* ages unadjusted

TABLE 27A

THE OCCUPATIONS OF THE PERSONS 15 YEARS OF AGE AND OVER IN EMPLOYMENT SHOWN BY 5-YEAR AGE GROUPS*
AND SEX IN ETHNIC GROUPS BY SELECTED AREAS OF USUAL RESIDENCE

Occupations	AGE GROUPS																TOTAL			
	15-19		20-24		25-29		30-34		35-39		40-49		50-59		60+		M	F	P	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F				
Travel Clerks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sales Workers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Managers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Working Owners	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Supervisors	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sales Workers	1	4	2	5	1	6	3	3	1	2	2	1	1	1	1	1	8	21	3	29
Service Workers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Managers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cooks and Stewards	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
House Workers	1	2	1	4	-	3	2	1	1	3	2	1	1	1	1	1	5	4	4	9
Laundress	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Police	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wardens and Watchmen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Agriculture and Fishing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Farmers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Agricultural Workers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tractors Drivers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fishermen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Production Workers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Foremen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bakers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dressmakers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Woodworkers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Refrigeration Mechanics	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Motor Mechanics	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Boat Mechanics	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Electricians	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cinema Operators	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Plumbers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Printers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Painters	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Builders and Carpenters	12	-	18	-	16	-	9	-	5	-	11	-	7	-	7	-	79	-	2	79
Engine Operators	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dockers and Handlers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Seamen	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Greasers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Drivers	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Labourers	52	-	38	-	20	-	17	-	10	-	16	-	7	-	7	-	162	-	11	162
Not Stated	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	79	27	102	50	73	39	58	23	47	9	73	10	47	4	487	162	649	-	-	-

TABLE 27A

THE OCCUPATIONS OF THE PERSONS 15 YEARS OF AGE AND OVER IN EMPLOYMENT SHOWN BY 5-YEAR AGE GROUPS*
AND SEX IN ETHNIC GROUPS BY SELECTED AREAS OF USUAL RESIDENCE

Occupations	AGE GROUPS														TOTAL	
	15-19		20-24		25-29		30-34		35-39		40-49		50-59		60+	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
<u>2. Indigenous in Employment on OTHER TUVALU ISLANDS</u>																
<u>Professional and Technical</u>																
Meteorological Staff																
Mechanical Engineers																
Surveyors																
Electrical Technicians																
Agricultural Officers																
Medical Assistants																
Trained Nurses																
Health Workers																
Magistrates																
Teachers Higher																
Teachers Primary																
Education Administration																
Ministers of Religion																
Religious Workers																
Photographer																
Social Workers																
<u>Administration and Managerial</u>																
Legislators																
Administrators																
<u>Clerical and Related</u>																
Executive Officers																
Typists																
Cashiers																
Postal Clerks																
Radio Operators																
Clerks																
<u>Sales Workers</u>																
Managers																
Working Owners																
Supervisors																
Sales Workers																
<u>Services Workers</u>																
Managers																
Cooks and Stewards																
House Workers																
Policemen																
Wardens and Watchmen																

TABLE 27A

THE OCCUPATIONS OF THE PERSONS 15 YEARS OF AGE AND OVER IN EMPLOYMENT SHOWN BY 5-YEAR AGE GROUPS*
AND SEX IN ETHNIC GROUPS BY SELECTED AREAS OF USUAL RESIDENCE

Occupations	15-19		20-24		25-29		30-34		35-39		40-49		50-59		60+		TOTAL	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
<u>Agriculture and Fishing</u>																		
Farmers	5	1	6	-	2	-	-	-	-	-	3	-	2	-	-	-	18	1
Agricultural Workers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tractor Drivers	-	-	-	-	3	-	-	-	1	-	1	-	-	-	-	-	5	5
Fishermen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Production Workers</u>																		
Foremen	-	-	-	-	-	-	2	-	-	-	3	-	1	-	-	-	6	6
Bakers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dressmakers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Motor Mechanics	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	1
Electricians	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Cinema Operators	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	2	2
Plumbers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Painters	-	-	3	-	2	-	3	-	1	-	3	-	4	-	1	-	17	17
Builders and Carpenters	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Engine Operators	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dockers and Handlers	-	-	-	-	1	-	2	-	-	-	-	-	-	-	-	-	3	3
Seamen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Greasers	-	-	-	-	-	-	-	-	-	-	1	-	1	-	1	-	4	4
Drivers	-	-	-	-	6	-	2	-	1	-	6	-	9	-	-	-	27	27
Labourers	1	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-
TOTAL	9	4	22	19	30	22	23	7	24	8	45	3	27	5	4	1	184	69
																	253	253

TABLE 27A
THE OCCUPATIONS OF THE PERSONS 15 YEARS OF AGE AND OVER IN EMPLOYMENT SHOWN BY 5-YEAR AGE GROUPS*
AND SEX IN ETHNIC GROUPS BY SELECTED AREAS OF USUAL RESIDENCE

Occupations	AGE GROUPS												TOTAL	
	15-19	20-24	25-29	30-34	35-39	40-49	50-59	60+	M	F	M	F	M	F
3. Indigenous in Employment - TOTAL FOR TUVALU														
<u>Professional and Technical</u>														
Meteorological Staff														
Civil Engineers														
Electrical Engineers														
Mechanical Engineers														
Surveyors														
Draughtsmen														
Electrical Technicians														
Ships Officers														
Ships Engineers														
Agricultural Officers														
Doctors														
Medical Assistants														
Dentists														
Pharmacists														
Trained Nurses														
Health Workers														
Accountants														
Magistrates														
Teachers Higher														
Teachers Primary														
Education Administration														
Ministers of Religion														
Religious Workers														
Journalists														
Photographer														
Librarians														
Social Workers														
Personnel Officers														
<u>Administration and Managerial</u>														
Legislators														
Administrators														
Managers														
<u>Clerical and Related</u>														
Executive Officers														
Typists														
Cashiers														
Postmasters and FSO's														
Bus Conductors														
Postal Clerks														

TABLE 27A

THE OCCUPATIONS OF THE PERSONS 15 YEARS OF AGE AND OVER IN EMPLOYMENT SHOWN BY 5-YEAR AGE GROUPS*
AND SEX IN ETHNIC GROUPS BY SELECTED AREAS OF USUAL RESIDENCE

Occupations	AGE GROUPS												TOTAL F P
	15-19 M F	20-24 M F	25-29 M F	30-34 M F	35-39 M F	40-49 M F	50-59 M F	60+ M F	M	F	P		
Radio Operators	1	1	5	3	1	6	1	-	17	-	17		
Clerks	3	10	3	2	1	2	2	-	24	53	77		
Travel Clerks	-	-	-	-	-	-	-	-	-	-	-		
Sales Workers	-	-	-	-	-	-	-	-	-	-	-		
Managers	-	-	2	3	1	4	3	2	15	2	17		
Working Owners	-	-	1	1	-	-	1	-	-	2	2		
Supervisors	-	-	3	4	2	2	3	-	21	34	55		
Sales Workers	2	4	3	10	2	2	1	-	-	-	-		
Service Workers	-	-	-	-	-	-	-	-	-	-	-		
Managers	-	-	-	-	1	3	5	-	8	6	14		
Cooks and Stewards	1	1	-	3	2	4	1	-	9	4	13		
House Workers	4	7	3	1	-	-	2	-	3	22	25		
Laundress	-	-	-	-	4	-	-	-	-	-	-		
Policemen	1	2	4	9	7	2	-	-	24	1	25		
Warders and Watchmen	-	-	1	1	1	4	-	-	7	1	8		
Agriculture and Fishing	-	-	-	-	-	-	-	-	-	-	-		
Farmers	5	6	2	-	-	3	2	-	18	1	19		
Agricultural Workers	-	-	-	-	-	-	-	-	-	-	-		
Tractor Drivers	-	-	3	2	1	4	-	-	11	-	11		
Fishermen	-	1	-	-	-	-	-	-	-	-	-		
Production Workers	-	-	-	-	-	-	-	-	-	-	-		
Foremen	-	-	-	2	-	4	5	-	11	-	11		
Bakers	-	-	-	-	-	-	-	-	-	1	1		
Dressmakers	-	-	1	1	-	-	1	-	-	-	2		
Woodworkers	-	-	-	-	-	-	-	-	-	-	-		
Refrigeration Mechanics	-	-	-	-	-	1	1	-	-	-	3		
Motor Mechanics	-	1	-	-	-	-	-	-	-	-	-		
Boat Mechanics	-	1	-	-	-	1	-	-	-	-	3		
Electricians	-	1	-	-	-	1	-	-	-	-	4		
Cinema Operators	1	3	1	-	1	-	-	-	3	4	6		
Plumbers	-	1	1	-	-	-	-	-	6	-	-		
Printers	-	-	-	-	-	-	-	-	-	-	-		
Painters	-	-	19	12	6	14	11	-	96	-	96		
Builders and Carpenters	12	21	-	-	1	-	-	2	2	-	2		
Engine Operators	-	1	-	-	-	-	-	-	-	-	-		
Dockers and Handlers	-	7	3	4	3	-	-	-	18	-	18		
Seamen	1	-	1	-	-	-	-	-	2	-	2		
Greasers	-	-	1	-	-	-	-	-	15	-	15		
Drivers	1	-	1	-	6	4	2	-	189	-	189		
Labourers	53	38	26	19	13	22	16	-	-	-	-		
Not Stated	-	-	-	-	-	-	-	-	-	-	-		
TOTAL	88	31	103	81	71	118	74	12	671	231	902		

TABLE 27A

THE OCCUPATIONS OF THE PERSONS 15 YEARS OF AGE AND OVER IN EMPLOYMENT SHOWN BY 5-YEAR AGE GROUPS*
AND SEX IN ETHNIC GROUPS BY SELECTED AREAS OF USUAL RESIDENCE

Occupations	AGE GROUPS												TOTAL M F	
	15-19 M F	20-24 M F	25-29 M F	30-34 M F	35-39 M F	40-49 M F	50-59 M F	60+ M F						
4. Persons of Non-Pacific Origin in Employment - TOTAL FOR TUVALU														
<u>Professional and Technical</u>														
Meteorological Staff	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Civil Engineers	1	1	1	3	1	1	1	1	1	1	1	1	4	1
Electrical Engineers	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mechanical Engineers	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Surveyors	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Electrical Technicians	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mech and Aero Technician	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Air Pilots	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ships Officers	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ships Engineers	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Agricultural Officers	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Doctors	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Dentists	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Veterinarian	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Pharmacists	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Trained Nurses	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Health Workers	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Economists	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Accountants	1	1	1	1	1	1	1	1	1	1	1	1	2	1
Judge	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Teachers Higher	1	1	2	1	1	1	1	1	1	1	1	1	4	1
Teachers Primary	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Education Administration	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ministers of Religion	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Social Workers	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Librarians	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<u>Administration and Management</u>														
Administrators	1	1	1	1	1	1	1	1	1	1	1	1	2	1
Managers	1	1	1	1	1	1	1	1	1	1	1	1	1	1
<u>Clerical and Related</u>														
Executive Officers	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Typists	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Radio Operators	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Sales Workers	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Managers	1	1	1	1	1	1	1	1	1	1	1	1	2	1
Working Owners	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Supervisors	1	1	1	1	1	1	1	1	1	1	1	1	1	1

TABLE 27A

THE OCCUPATIONS OF THE PERSONS 15 YEARS OF AGE AND OVER IN EMPLOYMENT SHOWN BY 5-YEAR AGE GROUPS*
AND SEX IN ETHNIC GROUPS BY SELECTED AREAS OF USUAL RESIDENCE

Occupations	AGE GROUPS												TOTAL						
	15-19		20-24		25-29		30-34		35-39		40-49		50-59		60+		M	F	P
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F			
<u>Service Workers</u>																			
Managers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cooks and Stewards	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Agriculture and Fishing</u>																			
Rishermen	-	-	-	-	-	-	1	1	-	1	-	-	-	-	-	-	1	-	1
Agricultural Instructors	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	3	-	3
<u>Production Workers</u>																			
Foremen	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-	1
Woodworkers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Motor Mechanics	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Electricians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Plumbers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1
Carpenters and Builders	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1
Not Stated	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-
TOTAL	-	-	2	-	8	2	9	1	6	1	2	-	2	-	1	-	30	4	34

TABLE 27A

THE OCCUPATIONS OF THE PERSONS 15 YEARS OF AGE AND OVER IN EMPLOYMENT SHOWN BY 5-YEAR AGE GROUPS*
AND SEX IN ETHNIC GROUPS BY SELECTED AREAS OF USUAL RESIDENCE

Occupations	AGE GROUPS																TOTAL			
	15-19		20-24		25-29		30-34		35-39		40-49		50-59		60+		M	F		
5. All Persons in Tuvalu in Employment - TOTAL FOR TUVALU																				
<u>Professional and Technical</u>																				
Meteorologists	-	-	1	-	-	-	1	1	1	-	8	1	-	-	-	-	11	2	13	
Civil Engineers	-	1	-	-	-	-	3	-	-	-	-	1	-	-	-	-	5	-	5	
Electrical Engineers	-	-	-	-	1	-	1	-	-	-	1	-	-	-	-	-	1	-	1	
Mechanical Engineers	-	1	-	-	2	-	1	-	1	-	2	-	-	-	-	-	5	-	5	
Surveyors	-	1	-	-	1	-	1	-	-	-	-	1	-	-	-	-	6	-	6	
Draughtsmen	-	-	-	-	1	-	2	-	-	-	-	1	-	-	-	-	5	-	5	
Electrical Technicians	-	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Mech and Aero Technician	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Air Pilots	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Ships Officers	-	-	-	-	1	-	1	-	2	-	-	1	-	-	-	-	5	-	5	
Ships Engineers	-	-	-	-	1	-	1	-	-	-	-	1	-	-	-	-	3	-	3	
Agricultural Officers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	
Doctors	-	-	-	-	-	-	1	-	1	-	1	-	-	-	-	-	2	-	2	
Medical Assistant	1	1	-	1	-	-	1	-	-	-	2	-	-	-	-	-	3	-	3	
Dentists	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Veterinarian	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Pharmacists	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Trained Nurses	-	-	2	2	-	6	-	2	4	4	2	3	-	-	-	-	10	19	19	
Health Workers	1	2	-	-	-	-	1	1	5	1	1	2	2	-	-	-	7	7	17	
Economists	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	
Accountants	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	3	-	3	
Jurists	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Teachers Higher	-	-	-	-	6	-	2	1	2	1	-	-	-	-	-	-	11	4	15	
Teachers Primary	-	2	5	1	4	13	-	8	1	1	2	1	-	-	-	-	10	28	38	
Education Administration	-	-	-	-	-	1	-	-	1	1	2	-	-	-	-	-	3	3	6	
Ministers of Religion	-	2	1	1	1	-	1	-	1	1	1	-	-	-	-	-	8	2	10	
Religious Workers	1	1	3	-	2	-	1	-	1	1	-	-	-	-	-	-	1	4	5	
Journalists	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Photographers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Librarians	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Social Workers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Personnel Officers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Translators	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<u>Administration and Managerial</u>																				
Legislators	-	-	-	-	-	-	1	1	1	1	4	-	-	-	-	-	11	1	12	
Administrators	-	-	-	-	3	1	3	1	2	-	4	-	-	-	-	-	12	2	14	
Managers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<u>Clerical and Related</u>																				
Executive Officers	2	-	6	-	3	1	2	1	3	-	4	-	1	-	-	-	23	2	25	
Typists	-	1	-	2	-	4	-	2	-	-	-	-	-	-	-	-	-	9	9	
Cashiers	-	3	4	5	2	4	-	2	-	-	2	-	1	-	-	-	9	14	23	
Postmasters and FSO's	-	-	1	-	1	-	-	-	1	-	-	-	1	-	-	-	4	-	4	

THE OCCUPATIONS OF THE PERSONS 15 YEARS OF AGE AND OVER IN EMPLOYMENT SHOWN BY 5-YEAR AGE GROUPS*
AND SEX IN ETHNIC GROUPS BY SELECTED AREAS OF USUAL RESIDENCE

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TABLE 27B

THE PREVIOUS OCCUPATIONS IN WHICH INDIGENOUS PERSONS 15 YEARS OF AGE AND OVER SEEKING WORK WERE EMPLOYED BY 5-YEAR AGE GROUPS* AND SEX BY SELECTED AREAS OF USUAL RESIDENCE

Previous Occupation	AGE GROUPS										TOTAL	
	15-19 M F	20-24 M F	25-29 M F	30-34 M F	35-39 M F	40-49 M F	50-59 M F	60+ M F	M	F	M	F
Previously Employed Indigenous Persons who are Seeking Work (Unemployed) - TOTAL FOR TUVALU												
<u>Professional and Technical</u>												
- Electrical Engineers	-	-	-	-	-	1	-	-	1	-	1	1
- Mechanical Engineers	-	-	-	-	-	-	1	-	1	-	1	1
- Ships Officers	-	1	-	-	-	-	-	-	1	-	1	1
- Other Tuvalu Islands	-	-	-	-	-	-	-	-	1	-	1	1
- Agricultural Officers	-	-	-	-	-	-	-	-	1	-	1	1
- Doctors	-	-	-	-	-	-	-	-	1	-	1	1
- Other Tuvalu Islands	-	-	-	-	1	-	-	-	2	-	2	2
- Trained Nurses	-	-	-	-	-	-	6	-	1	-	20	20
- Funafuti	-	-	-	-	-	-	-	-	1	-	1	1
- Other Tuvalu Islands	-	-	-	-	-	5	-	-	1	-	2	3
- Funafuti	-	1	-	1	1	-	-	-	1	-	1	2
- Other Tuvalu Islands	-	-	-	-	-	-	-	-	1	-	1	2
- Funafuti	1	-	-	1	-	-	-	-	1	-	1	1
- Other Tuvalu Islands	-	-	-	-	-	-	-	-	1	-	1	1
<u>Clerical and Related</u>												
- Executive Officer	-	-	-	-	-	-	-	-	1	-	1	1
- Typists	1	-	-	-	-	-	-	-	1	-	1	1
- Funafuti	-	2	-	1	-	-	-	-	1	-	5	5
- Other Tuvalu Islands	-	1	-	-	-	1	-	-	1	-	1	1
- Funafuti	-	-	-	-	-	-	-	-	1	-	1	1
- Other Tuvalu Islands	-	-	-	-	-	-	-	-	1	-	1	1
- Cashiers	-	-	-	-	-	-	-	-	1	-	1	1
- Postmaster and FSO's	-	-	-	-	-	-	-	-	1	-	1	1
- Radio Operators	-	-	-	-	-	-	-	-	1	-	1	1
- Funafuti	-	-	-	-	-	-	-	-	1	-	1	1
- Other Tuvalu Islands	-	-	-	-	-	-	-	-	1	-	1	1
- Funafuti	-	1	-	-	-	-	-	-	1	-	1	1
- Other Tuvalu Islands	-	-	-	-	-	-	-	-	1	-	1	1
- Funafuti	1	-	-	-	-	-	-	-	1	-	1	1
- Other Tuvalu Islands	-	1	-	-	-	-	-	-	1	-	1	1
<u>Sales Workers</u>												
- Managers	-	-	-	-	-	-	-	-	1	-	1	1
- Working Owners	-	-	-	-	-	-	-	-	1	-	1	1
- Sales Workers	-	-	-	-	-	-	-	-	1	-	1	1
- Other Tuvalu Islands	-	-	-	-	-	-	-	-	1	-	1	1
<u>Service Workers</u>												
- Cooks and Stewards	-	-	-	-	-	-	-	-	1	-	1	1
- Funafuti	-	-	-	-	-	-	-	-	1	-	1	1
- Other Tuvalu Islands	-	-	-	-	-	-	-	-	1	-	1	1
- Funafuti	-	-	-	-	-	-	-	-	1	-	1	1
- Other Tuvalu Islands	-	-	-	-	-	-	-	-	1	-	1	1
- House Workers	-	-	-	-	-	-	-	-	1	-	1	1
- Funafuti	-	-	-	-	-	-	-	-	1	-	1	1
- Other Tuvalu Islands	-	-	-	-	-	-	-	-	1	-	1	1
- Policemen	-	-	-	-	-	-	-	-	1	-	1	1
- Funafuti	-	-	-	-	-	-	-	-	1	-	1	1
- Other Tuvalu Islands	-	-	-	-	-	-	-	-	1	-	1	1
- Warders and Watchmen	-	-	-	-	-	-	-	-	1	-	1	1
- Funafuti	-	-	-	-	-	-	-	-	1	-	1	1
<u>Agriculture and Fisheries</u>												
- Agricultural Workers	-	-	-	-	-	-	-	-	1	-	1	1
- Funafuti	-	-	-	-	-	-	-	-	1	-	1	1

* ages unadjusted

TABLE 27B

THE PREVIOUS OCCUPATIONS IN WHICH INDIGENOUS PERSONS 15 YEARS OF AGE AND OVER SEEKING WORK WERE EMPLOYED BY 5-YEAR AGE GROUPS* AND SEX BY SELECTED AREAS OF USUAL RESIDENCE

Previous Occupation	AGE GROUPS												TOTAL							
	15-19		20-24		25-29		30-34		35-39		40-49		50-59		60+		M	F	P	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F				
<u>Production Workers</u>																				
Foremen	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	1	
- Funafuti	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
- Other Tuvalu Islands	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Woodworkers	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
- Funafuti	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	
- Other Tuvalu Islands	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Motor Mechanics	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
- Funafuti	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Builders and Carpenters	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
- Funafuti	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
- Other Tuvalu Islands	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Seamen	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
- Funafuti	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
- Other Tuvalu Islands	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Greasers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
- Funafuti	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
- Other Tuvalu Islands	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Drivers	-	-	-	-	2	-	-	-	-	-	-	-	-	6	-	-	-	-	-	
- Funafuti	1	-	-	-	2	-	-	-	-	-	-	-	-	1	-	-	-	-	-	
- Other Tuvalu Islands	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Labourers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
- Funafuti	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
- Other Tuvalu Islands	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Not Stated	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
TOTAL	2	5	4	14	21	10	11	9	5	5	6	8	18	7	1	-	68	58	126	

TABLE 28A

THE OCCUPATIONS OF THE INDIGENOUS MALES 15 YEARS* OF AGE AND OVER IN EMPLOYMENT OR SEEKING WORK (UNEMPLOYED) BY THE NUMBER OF YEARS EMPLOYED IN CONJUNCTION WITH THE LENGTH AND LOCATION OF TRAINING** RECEIVED FOR THE PRESENT OR MOST RECENT OCCUPATION

INDIGENOUS MALES

Occupation	0-2 Years						3-5 Years						6-10 Years						11 or More Years						TOTAL		
	Trg			Tuvalu			Trg			Tuvalu			Trg			Tuvalu			Trg			Tuvalu				Tot. Nil	Tot. Trnd
	Nil	S	L	S	L	Over-seas	Nil	S	L	S	L	Over-seas	Nil	S	L	S	L	Over-seas	Nil	S	L	S	L	Over-seas			
<u>Professional and Technical</u>																											
Meteorological Staff																											
Civil Engineer																											
Electrical Engineers																											
Mechanical Engineers																											
Surveyor	3																										
Draughtsmen	2																										
Electrical Technicians	1																										
Ships Officers	1																										
Ships Engineers	1																										
Agricultural Officer	1																										
Doctors																											
Medical Assistants																											
Dentists																											
Pharmacists																											
Trained Nurses																											
Health Workers	1																										
Accountants	1																										
Teachers Higher																											
Teachers Primary																											
Education Administration																											
Ministers of Religion																											
Religious Workers	4																										
Journalists																											
Librarians																											
Social Workers																											
Personnel Officers																											
<u>Administration and Managerial</u>																											
Legislators	4																										
Administrators	3																										
Managers																											
<u>Clerical</u>																											
Executive Officers	11	2	1	2																							
Typists																											
Cashiers	2																										
Postmaster and FSO's	3																										
Bus Conductors																											
Postal Clerks	13																										
Radio Operators																											
Clerks	13																										
Travel Clerks																											

* ages unadjusted

** S = short = under 1 year; L = long = 1 year and over

TABLE 28A

THE OCCUPATIONS OF THE INDIGENOUS MALES 15 YEARS* OF AGE AND OVER IN EMPLOYMENT OR SEEKING WORK
(UNEMPLOYED) BY THE NUMBER OF YEARS EMPLOYED IN CONJUNCTION WITH THE LENGTH AND LOCATION OF
TRAINING** RECEIVED FOR THE PRESENT OR MOST RECENT OCCUPATION

INDIGENOUS MALES

Occupation	0-2 Years						3-5 Years						6-10 Years						11 or More Years						Tot. Nil	Tot. Trnd	TOTAL
	Trg			Tuvalu and Over-seas			Trg			Tuvalu and Over-seas			Trg			Tuvalu and Over-seas			Trg			Tuvalu and Over-seas					
	Nil	S	L	S	L	Over-seas	Nil	S	L	S	L	Over-seas	Nil	S	L	S	L	Over-seas	Nil	S	L	S	L	Over-seas			
<u>Sales Workers</u>																											
Managers	5	-	-	-	-	2	2	1	-	-	1	-	-	-	-	-	-	-	3	-	-	-	-	-	11	4	15
Working Owners	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	2
Supervisors	8	1	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	21	1	22
<u>Service Workers</u>																											
Managers	5	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	7	1	8
Cooks and Stewards	6	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	2	9
House Workers	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	3
Policemen	2	-	2	-	-	-	5	2	1	-	-	1	3	-	-	-	-	1	3	2	-	-	-	-	9	16	25
Wardens and Watchmen	5	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	1	7
<u>Agriculture and Fishing</u>																											
Farmers	12	1	1	-	-	-	2	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	4	18
Agricultural Workers	8	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	2	11
Tractor Drivers																											
Fishermen																											
<u>Production Workers</u>																											
Foremen	3	-	-	-	-	-	2	-	-	-	-	1	1	-	-	-	-	-	4	-	-	-	1	-	9	4	13
Bakers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dressmakers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Woodworkers	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	1	3
Motor Mechanics	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	3	-	4
Boat Mechanics	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Electricians	1	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	1	3
Cinema Operators	3	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	1	3
Plumbers	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	5	1	6
Printers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Painters	63	-	2	-	-	1	17	1	-	1	-	-	-	-	-	-	-	2	7	-	-	-	-	-	89	9	98
Builders and Carpenters	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	2
Engine Operators	13	2	-	-	-	-	4	3	2	-	-	-	1	-	-	-	-	4	1	-	-	-	-	-	23	21	44
Dockers and Cranemen	10	2	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	2	1	3
Seamen	153	4	-	-	-	-	30	-	-	-	-	-	-	-	-	-	-	2	2	-	-	-	-	-	192	4	26
Greasers																											
Drivers																											
Labourers																											
Not Stated																											
TOTAL	371	14	9	2	3	- 25	113	12	9	3	3	6 15	37	6	16	- 1	1	10	47	9	15	- 3	1	8	568	171	739

TABLE 28B

THE OCCUPATIONS OF THE INDIGENOUS FEMALES 15 YEARS* OF AGE AND OVER IN EMPLOYMENT OR SEEKING WORK (UNEMPLOYED) BY THE NUMBER OF YEARS EMPLOYED IN CONJUNCTION WITH THE LENGTH AND LOCATION OF TRAINING** RECEIVED FOR THE PRESENT OR MOST RECENT OCCUPATION

INDIGENOUS FEMALES

Occupations	0-2 Years						3-5 Years						6-10 Years						11 or More Years						Tot. Nil	Tot. Trnd	TOTAL
	Trg Tuvalu			Over-seas			Trg Tuvalu			Over-seas			Trg Tuvalu			Over-seas			Trg Tuvalu			Over-seas					
	Nil	S	L	Nil	S	L	Nil	S	L	Nil	S	L	Nil	S	L	Nil	S	L	Nil	S	L	Nil	S	L			
Professional and Technical																											
Meteorological Staff																											
Agricultural Officers																											
Doctors																											
Medical Assistants																											
Dentists	1																										
Trained Nurses	2		2																								
Health Workers	3	1																									
Teachers Higher																											
Teachers Primary	4	7				2																					
Education Administration	1																										
Religious Workers	1																										
Journalists																											
Librarians						1																					
Social Workers																											
Administration and Managerial																											
Legislators																											
Administrators						1																					
Clerical																											
Executive Officer																											
Typists	1	2	3																								
Cashiers	3	9																									
Postmasters																											
Bus Conductors	1																										
Postal Clerks	1																										
Radio Operators	3																										
Clerks	48	1																									
Travel Clerks	1																										
Sales Workers																											
Managers	1																										
Working Owners	1																										
Sales Supervisors	1																										
Sales Workers	36	1																									
Service Workers																											
Managers	1																										
Cooks and Stewards	3	1																									
House Workers	22																										
Laundresses																											
Policemen	1																										
Warders and Watchmen	2																										

* ages unadjusted

** S = short = under 1 year; L = long = 1 year or more

THE OCCUPATIONS OF THE INDIGENOUS FEMALES 15 YEARS* OF AGE AND OVER IN EMPLOYMENT OR SEEKING WORK (UNEMPLOYED) BY THE NUMBER OF YEARS EMPLOYED IN CONJUNCTION WITH THE LENGTH AND LOCATION OF TRAINING** RECEIVED FOR THE PRESENT OR MOST RECENT OCCUPATION

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TABLE 29A

THE OCCUPATIONS OF THE INDIGENOUS PERSONS AGED 15 YEARS* OF AGE AND OVER IN EMPLOYMENT OR IF SEEKING WORK WHERE MOST RECENTLY EMPLOYED SHOWN BY SEX AND THE HIGHEST EDUCATIONAL LEVEL WHICH THEY ATTAINED

Occupations	NONE		PRIMARY				SECONDARY				UNIVERSITIES				NOT STATED		TOTAL	
			CLASS 1-5		CLASS 6-9		FORMS I-IV		FORMS V-VI		2 YEARS PLUS		DIPLOMA DEGREE					
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
<u>Professional and Technical</u>																		
Meteorological Staff	-	-	-	-	9	1	1	1	1	1	-	-	-	-	-	-	10	2
Civil Engineers	-	-	-	-	1	2	-	-	-	-	-	-	-	-	-	-	1	1
Electrical Engineers	-	-	-	-	5	6	-	-	-	-	-	-	-	-	-	-	6	6
Mechanical Engineers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	3
Surveyors	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	4
Draughtsmen	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	1
Electrical Technicians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	5
Ships Officers	-	-	-	-	1	1	-	-	3	3	-	-	-	-	-	-	3	2
Ships Engineers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	2
Agricultural Officers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3
Doctors	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	7
Medical Assistants	-	-	-	-	3	1	-	-	-	-	-	-	-	-	-	-	1	1
Dentists	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	3
Pharmacists	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	2
Trained Nurses	-	-	-	-	-	25	5	11	1	2	-	-	-	-	-	-	10	40
Health Workers	-	-	-	-	5	5	3	1	1	14	-	-	-	-	-	-	7	17
Accountants	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Teachers Higher	-	-	-	-	3	7	1	10	6	3	-	-	-	-	-	-	12	31
Teachers Primary	-	-	-	-	1	3	3	3	1	1	-	-	-	-	-	-	3	3
Education Administrators	-	-	-	-	-	3	1	1	2	1	-	-	-	-	-	-	9	11
Ministers of Religion	-	-	-	-	3	1	1	3	2	1	-	-	-	-	-	-	1	5
Workers of Religion	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Journalists	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	4
Librarians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Social Workers	-	-	-	-	2	2	-	-	-	-	-	-	-	-	-	-	1	2
Personnel Officers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
<u>Administration and Managerial</u>																		
Legislators	-	-	-	-	4	2	3	1	2	1	-	-	2	3	-	-	11	12
Administrators	-	-	-	-	-	-	2	1	3	1	-	-	-	-	-	-	10	12
Managers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<u>Clerical and Related Workers</u>																		
Executive Officers	-	-	-	-	12	8	7	2	5	1	-	-	-	-	-	-	24	26
Typists	-	-	-	-	-	1	-	7	-	3	-	-	-	-	-	-	15	15
Cashier	-	-	-	-	4	1	-	11	5	1	-	-	-	-	-	-	9	24
Postmaster and FSO's	-	-	-	-	3	1	-	-	-	-	-	-	-	-	-	-	4	5
Bus Conductors	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Postal Workers	-	-	-	-	7	1	7	1	2	2	-	-	-	-	-	-	16	17
Radio Operators	-	-	-	-	12	2	5	1	8	10	-	-	-	-	-	-	20	23
Clerks	-	-	-	-	6	21	9	23	-	1	-	-	-	-	-	-	24	78
Travel Clerks	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
<u>Sales Workers</u>																		
Managers	-	-	-	-	12	1	-	-	-	1	-	-	-	-	-	-	15	17
Working Owners	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	2
Supervisors	-	-	-	-	2	-	-	1	-	-	-	-	-	-	-	-	2	1
Sales Workers	-	-	-	-	14	36	5	9	2	1	-	-	-	-	-	-	22	47

* ages unadjusted

TABLE 29A

THE OCCUPATIONS OF THE INDIGENOUS PERSONS AGED 15 YEARS* OF AGE AND OVER IN EMPLOYMENT OR IF SEEKING WORK WHERE MOST RECENTLY EMPLOYED SHOWN BY SEX AND THE HIGHEST EDUCATIONAL LEVEL WHICH THEY ATTAINED

Occupations	NONE M F	PRIMARY		SECONDARY				UNIVERSITIES				NOT STATED		TOTAL	
		CLASS 1-5 M F	CLASS 6-9 M F	FORMS I-IV M F	FORMS V-VI M F	2 YEARS PLUS M F	DIPLOMA DEGREE M F	M	F	M	F	M	F	M	F
<u>Service Workers</u>															
Managers	-	3	4	1	-	-	-	8	6	-	-	-	-	-	14
Cooks and Stewards	-	2	7	-	-	-	-	9	7	-	-	-	-	-	16
House Workers	-	-	3	1	-	-	-	3	26	-	-	-	-	-	29
Laundress	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Policemen	-	2	15	7	1	-	-	25	1	-	-	-	-	-	26
Warders and Watchmen	-	-	6	1	-	-	-	7	2	-	-	-	-	-	9
<u>Agriculture and Fishing</u>															
Agricultural Workers	-	1	10	3	4	-	-	18	1	-	-	-	-	-	19
Fishermen	-	3	6	-	-	-	-	11	-	-	-	-	-	-	11
<u>Production Workers</u>															
Foremen	-	-	13	-	-	-	-	13	-	-	-	-	-	-	13
Bakers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Dressmakers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Woodworkers	-	-	2	1	-	-	-	3	1	-	-	-	-	-	1
Motor Mechanics	-	1	1	2	-	-	-	4	-	-	-	-	-	-	3
Electricians	-	-	2	1	-	-	-	3	-	-	-	-	-	-	4
Cinema Operators	-	-	-	3	1	-	-	4	-	-	-	-	-	-	6
Plumbers	-	-	5	1	-	-	-	6	-	-	-	-	-	-	6
Builders and Carpenters	-	11	83	4	-	-	-	98	-	-	-	-	-	-	98
Engine Operators	-	1	2	-	-	-	-	2	-	-	-	-	-	-	2
Seamen	-	1	31	11	1	-	-	44	-	-	-	-	-	-	44
Greasers	-	1	2	-	-	-	-	3	-	-	-	-	-	-	3
Drivers	-	9	17	-	-	-	-	26	-	-	-	-	-	-	26
Labourers	1	21	164	8	2	-	-	196	-	-	-	-	-	-	196
Not Stated	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	1	64	490	95	85	65	40	739	289	-	-	-	-	1028	

TABLE 29B

THE OCCUPATIONS OF THE NON-INDIGENOUS PERSONS AGED 15 YEARS* OF AGE AND OVER IN EMPLOYMENT OR IF SEEKING WORK WHERE MOST RECENTLY EMPLOYED SHOWN BY SEX AND THE HIGHEST EDUCATIONAL LEVEL WHICH THEY ATTAINED

Occupations	NONE		CLASS 1-5		CLASS 6-9		FORMS I-IV		FORMS V-VI		2 YEARS PLUS		DIPLOMA DEGREE		NOT STATED		TOTAL	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
<u>Professional and Technical</u>																		
Meteorological Staff	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	1
Civil Engineers	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	4	4
Electrical Technician	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	2	2
Ships Officers	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	1
Economists	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	1
Accountant	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	2	2
Teachers Higher	-	-	-	-	-	-	-	-	1	1	-	-	4	-	-	4	7	7
Minister of Religion	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	2	2	2
Librarian	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1
Social Workers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1
<u>Administration and Managerial</u>																		
Administrators	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	2	2
Sales Workers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Managers	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	-	2	2
<u>Agriculture and Fisheries</u>																		
Agricultural Officers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3
Fishermen	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	1	1
<u>Production Workers</u>																		
Foremen	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	1
Cinema Operators	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	1
Labourers	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1
Not Stated	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	1
TOTAL	-	-	-	-	-	-	2	-	3	1	9	3	16	-	-	-	30	34

* ages unadjusted

TABLE 30

THE NUMBER OF INDIGENOUS HOUSEHOLDS (LISTED BY THE NUMBER OF PERSONS IN EACH HOUSEHOLD) RECEIVING CASH INCOME FROM THE SOURCE DESCRIBED SHOWING WHETHER THE INCOME IS EARNED BY MEN OR WOMEN

Island by size of Household	Total Households	WAGES			OWN BUSINESS			PENSION		SALES OF PRODUCE			REMITTANCE		No Reported Cash Income
		Men Only	Women Only	Men and Women	Men Only	Women Only	Men and Women	Men Only	Women	Men Only	Women Only	Men and Women	Regular	Occasional	
Nanumea persons	19	1	1	1	1	1	1	1	6	5	5	5	6	2	1
1-2	37	4	1	1	1	1	1	1	3	6	6	27	16	5	1
3-4	29	4	1	1	1	1	1	1	3	1	1	23	10	8	1
5-6	27	5	3	1	1	1	2	2	2	1	1	24	15	4	1
7-8	11	3	1	1	1	1	1	2	2	1	1	8	4	5	1
9-10	13	6	1	1	1	1	1	1	1	1	1	13	8	3	1
11-14	4	2	1	1	1	1	1	1	1	1	1	4	2	1	1
15+															
TOTAL	140	24	7	1	2	1	5	15	12	104	61	28	3		
Nanumaga persons	7	2	1	1	1	1	1	2	2	2	2	2	1	2	1
1-2	23	1	1	1	1	1	1	1	1	1	1	22	2	14	1
3-4	38	2	2	1	1	1	1	1	1	1	1	36	6	17	1
5-6	20	2	2	1	1	1	1	1	1	1	1	19	7	7	1
7-8	12	1	1	1	1	1	1	1	1	1	1	12	2	5	1
9-10	3	1	1	1	1	1	1	1	1	1	1	3	1	2	1
11-14	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15+															
TOTAL	103	9	6	1	1	1	1	2	1	94	19	47	2		
Niutao persons	6	1	1	1	1	1	1	1	2	2	2	2	1	1	1
1-2	26	3	1	1	1	1	1	1	2	2	2	13	2	13	3
3-4	40	5	2	1	1	1	1	1	1	1	1	33	5	20	1
5-6	31	2	2	1	1	1	1	2	2	2	2	26	6	20	1
7-8	16	4	1	1	1	1	1	4	4	9	4	7	4	7	1
9-10	9	1	1	1	1	1	1	2	2	6	2	4	2	4	1
11-14	3	1	1	1	1	1	1	1	1	2	1	2	1	2	1
15+															
TOTAL	131	15	7	1	1	1	1	13	12	91	21	66	3		

TABLE 30

THE NUMBER OF INDIGENOUS HOUSEHOLDS (LISTED BY THE NUMBER OF PERSONS IN EACH HOUSEHOLD) RECEIVING CASH INCOME FROM THE SOURCE DESCRIBED SHOWING WHETHER THE INCOME IS EARNED BY MEN OR WOMEN

Island by size of Household	Total Households	WAGES		OWN BUSINESS		PENSION		SALES OF PRODUCE		Regular	Occasional	No Reported Cash Income
		Men Only	Women Only	Men Only	Women Only	Men Only	Women Only	Men Only	Women Only			
Nui persons 1-2 3-4 5-6 7-8 9-10 11-14 15+	7	1	1	-	-	-	-	3	1	2	1	1
	16	4	1	-	-	-	-	1	8	-	2	-
	16	3	1	-	-	1	-	4	10	1	5	-
	22	2	2	-	-	-	-	6	13	9	8	-
	14	3	1	-	-	-	-	5	8	4	9	-
	11	1	1	-	-	1	-	3	8	3	6	-
	1	1	-	-	-	-	-	1	1	-	1	-
TOTAL	87	14	5	-	-	2	-	23	48	19	31	1
Vaitupu persons 1-2 3-4 5-6 7-8 9-10 11-14 15+	15	7	1	-	-	1	-	2	4	2	4	-
	43	15	1	-	-	-	-	5	28	8	11	-
	47	19	4	1	-	2	-	4	32	10	14	-
	33	13	1	-	-	1	-	8	24	14	11	-
	17	6	5	-	-	-	-	2	14	4	4	-
	12	5	2	-	-	-	-	1	9	4	4	-
	1	1	-	-	-	-	-	1	1	-	1	-
TOTAL	168	66	10	1	-	4	-	22	112	42	49	3
Unkufetau persons 1-2 3-4 5-6 7-8 9-10 11-14 15+	9	1	1	-	-	-	-	1	1	2	2	4
	23	3	1	-	-	1	-	1	12	11	7	-
	33	5	1	-	-	-	-	3	25	15	13	-
	28	4	2	-	-	1	-	2	22	15	7	-
	11	1	1	-	-	-	-	-	8	8	4	-
	3	1	-	-	-	-	-	-	3	1	2	-
	1	-	-	-	-	-	-	-	-	-	-	-
TOTAL	107	13	5	1	-	2	-	7	71	52	35	4

TABLE 30

THE NUMBER OF INDIGENOUS HOUSEHOLDS (LISTED BY THE NUMBER OF PERSONS IN EACH HOUSEHOLD) RECEIVING CASH INCOME FROM THE SOURCE DESCRIBED SHOWING WHETHER THE INCOME IS EARNED BY MEN OR WOMEN

Island by size of Household	Total Households	WAGES		OWN BUSINESS		PENSION		SALES OF PRODUCE			REMITTANCE		No Reported Cash Income
		Men Only	Women Only	Men Only	Women Only	Men Only	Women Only	Men Only	Women Only	Men Only	Women Only	Regular	
Funafuti persons 1-2 3-4 5-6 7-8 9-10 11-14 15+	23 50 72 59 31 39 10	15 28 38 32 17 17 4	1 5 5 1 2 3 1	1 1 6 2 2 1 1	1 1 1 1 1 1 1	1 1 6 3 3 4 2	1 1 1 3 3 4 2	1 4 1 3 3 1 1	1 5 3 3 2 2 1	1 1 1 1 1 2	2 8 5 9 2 3 2	4 8 3 8 5 8 1	2 2 3 1 1 1 1
TOTAL	284	151	17	91	9	10	20	13	16	4	31	37	8
Nukulaelae persons 1-2 3-4 5-6 7-8 9-10 11-14 15+	1 10 9 19 8 1 2	1 2 2 3 1 1 1	1 1 1 1 1 1 1	1 1 1 1 1 1 1	1 1 1 1 1 1 1	1 1 1 1 1 1 1	1 1 1 1 1 1 1	1 2 1 5 1 1 1	1 2 1 1 1 1 1	1 3 8 12 8 2	1 8 3 11 5 1 1	1 1 3 8 1 1 1	1 1 1 1 1 1 1
TOTAL	50	8	4	2	1	1	2	9	2	33	28	16	1
Niulakita persons 1-2 3-4 5-6 7-8 9-10 11-14 15+	1 1 1 3 2 1 1	1 1 1 1 1 1 1	1 1 1 1 1 1 1	1 1 1 1 1 1 1	1 1 1 1 1 1 1	1 1 1 1 1 1 1	1 1 1 1 1 1 1	1 1 1 3 2 1 1	1 1 1 1 1 1 1	1 1 1 1 1 1 1	1 1 1 1 1 1 1	1 1 1 1 1 1 1	1 1 1 1 1 1 1
TOTAL	9	3	1	1	1	1	1	7	1	1	1	1	1

TABLE 30
THE NUMBER OF INDIGENOUS HOUSEHOLDS (LISTED BY THE NUMBER OF PERSONS IN EACH HOUSEHOLD) RECEIVING CASH INCOME FROM THE SOURCE DESCRIBED SHOWING WHETHER THE INCOME IS EARNED BY MEN OR WOMEN

Island by size of Household	Total Households	WAGES		OWN BUSINESS		PENSION		SALES OF PRODUCE		REMITTANCE		No Reported Cash Income
		Men Only	Women Only	Men Only	Women Only	Men Only	Women Only	Men Only	Women Only	Regular	Occasional	
Tuvalu persons	1-2	25	4	1	1	1	1	16	9	15	16	9
	3-4	61	12	1	1	3	4	17	25	114	60	5
	5-6	78	16	8	1	10	18	18	10	167	82	8
	7-8	63	17	1	2	8	31	31	6	141	73	2
	9-10	36	7	2	2	3	18	18	8	67	41	1
	11-14	25	7	1	1	6	9	9	2	42	30	1
	15+	9	1	1	1	2	2	2	1	11	7	1
TOTAL TUVALU	1079	297	63	109	10	36	111	61	557	272	309	25

TABLE 31

THE NUMBER OF INDIGENOUS HOUSEHOLDS CROSS-CLASSIFIED BY THE NUMBER OF PERSONS IN THE HOUSEHOLD AND THE NUMBER OF SUCH PERSONS WHO ARE ADULTS, SHOWING HOW MANY OF THOSE ADULTS ARE IN RECEIPT OF CASH INCOME FROM WAGES OR THEIR OWN BUSINESS

NANUMEA

Adults and Cash Earner in Household	Total Number of Persons in the Households																			Total Households
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
One Adult	10	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14
No Earner	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
One Earner	9	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	12
Two Adults	1	6	11	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	21
No Earner	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
One Earner	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	18
Two Earners	1	5	9	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	28
Three Adults	1	1	6	12	4	3	2	1	1	1	1	1	1	1	1	1	1	1	1	2
No Earner	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
One Earner	1	1	1	2	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	7
Two Earners	1	1	4	9	2	2	3	3	1	1	1	1	1	1	1	1	1	1	1	17
Three Earners	1	1	1	5	8	2	3	3	1	1	1	1	1	1	1	1	1	1	1	19
Four Adults	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
No Earner	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
One Earner	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Two Earners	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Three Earners	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5
Four Earners	1	1	1	3	4	1	3	2	1	1	1	1	1	1	1	1	1	1	1	12
Five Earners	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	34
5-6 Adults	1	1	1	1	1	13	7	7	1	4	2	1	1	1	1	1	1	1	1	1
No Earner	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
One Earner	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Two Earners	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Three Earners	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Four Earners	1	1	1	1	1	4	6	5	1	3	2	1	1	1	1	1	1	1	1	5
Five+ Earners	1	1	1	1	1	7	1	3	1	4	5	3	1	2	4	1	1	1	1	4
7-10 Adults	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23
No Earner	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
One Earner	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Two Earners	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Three Earners	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Four Earners	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Five+ Earners	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11+ Adults	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
No Earner	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
One Earner	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Two Earners	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Three Earners	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Four Earners	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Five+ Earners	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
TOTAL HOUSEHOLDS	10	9	18	19	13	16	14	13	2	9	7	3	1	3	4	1	1	1	1	140
No Earner	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5
One Earner	9	3	4	4	4	1	3	1	1	1	1	1	1	1	1	1	1	1	1	19
Two Earners	1	5	9	11	4	3	1	3	1	1	1	1	1	1	1	1	1	1	1	27
Three Earners	1	1	4	3	4	4	3	2	1	1	1	1	1	1	1	1	1	1	1	29
Four Earners	1	1	1	3	4	4	7	7	1	6	7	3	1	1	4	1	1	1	1	17
Five+ Earners	1	1	1	1	1	7	1	1	1	1	1	1	1	1	1	1	1	1	1	43

TABLE 31

THE NUMBER OF INDIGENOUS HOUSEHOLDS CROSS-CLASSIFIED BY THE NUMBER OF PERSONS IN THE HOUSEHOLD AND THE NUMBER OF SUCH PERSONS WHO ARE ADULTS, SHOWING HOW MANY OF THOSE ADULTS ARE IN RECEIPT OF CASH INCOME FROM WAGES OR THEIR OWN BUSINESS

NANUMAGA																				
Adults and Cash Earner in Household	Total Number of Persons in the Households																			Total Households
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
One Adult	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5
No Earner	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5
One Earner	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	23
Two Adults	1	4	4	4	6	2	1	2	1	1	1	1	1	1	1	1	1	1	1	3
No Earner	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
One Earner	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	19
Two Earners	1	2	4	4	4	2	1	2	1	1	1	1	1	1	1	1	1	1	1	24
Three Adults	1	1	2	7	8	5	1	1	2	1	1	1	1	1	1	1	1	1	1	1
No Earner	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
One Earner	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
Two Earners	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	22
Three Earners	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	20
Four Adults	1	1	1	4	3	7	5	1	1	1	1	1	1	1	1	1	1	1	1	1
No Earner	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
One Earner	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Two Earners	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Three Earners	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Four Earners	1	1	1	4	3	7	4	1	1	1	1	1	1	1	1	1	1	1	1	1
Five Earners	1	1	1	1	3	7	4	1	1	1	1	1	1	1	1	1	1	1	1	1
5-6 Adults	1	1	1	1	3	4	4	8	4	3	1	1	1	1	1	1	1	1	1	1
No Earner	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
One Earner	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Two Earners	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Three Earners	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Four Earners	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Five+ Earners	1	1	1	1	1	1	3	7	3	2	1	1	1	1	1	1	1	1	1	1
7-10 Adults	1	1	1	1	1	4	3	1	1	2	1	1	2	1	1	1	1	1	1	4
No Earner	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
One Earner	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Two Earners	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Three Earners	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Four Earners	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Five+ Earners	1	1	1	1	1	1	3	7	3	2	1	1	2	1	1	1	1	1	1	1
11+ Adults	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
No Earner	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
One Earner	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Two Earners	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Three Earners	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Four Earners	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Five+ Earners	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
TOTAL HOUSEHOLDS	2	5	7	16	20	18	10	10	9	3	1	1	2	1	1	1	1	1	1	103
No Earner	2	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
One Earner	2	2	4	4	4	2	1	2	2	1	1	1	1	1	1	1	1	1	1	7
Two Earners	1	2	2	7	9	5	1	1	1	1	1	1	1	1	1	1	1	1	1	21
Three Earners	1	1	2	4	4	7	4	1	2	1	1	1	1	1	1	1	1	1	1	25
Four Earners	1	1	1	4	4	7	3	7	5	2	1	1	2	1	1	1	1	1	1	22
Five+ Earners	1	1	1	1	1	4	3	1	1	1	1	1	1	1	1	1	1	1	1	25

TABLE 31

THE NUMBER OF INDIGENOUS HOUSEHOLDS CROSS-CLASSIFIED BY THE NUMBER OF PERSONS IN THE HOUSEHOLD AND THE NUMBER OF SUCH PERSONS WHO ARE ADULTS, SHOWING HOW MANY OF THOSE ADULTS ARE IN RECEIPT OF CASH INCOME FROM WAGES OR THEIR OWN BUSINESS

Adults and Cash Earner in Household	Total Number of Persons in the Households																			Total Households
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
One Adult	2	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
No Earner	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
One Earner	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Two Adults	-	3	6	2	2	5	-	-	-	-	-	-	-	-	-	-	-	-	-	18
No Earner	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
One Earner	-	2	4	1	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	10
Two Earners	-	1	1	1	1	3	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Three Adults	-	-	6	8	13	4	3	-	-	-	-	-	-	-	-	-	-	-	-	34
No Earner	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
One Earner	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Two Earners	-	-	1	2	6	1	1	-	-	-	-	-	-	-	-	-	-	-	-	10
Three Earners	-	-	2	6	7	3	1	-	-	-	-	-	-	-	-	-	-	-	-	19
Four Adults	-	-	-	3	3	7	6	1	1	1	-	-	-	-	-	-	-	-	-	27
No Earner	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	2
One Earner	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	-	2
Two Earners	-	-	-	-	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	4
Three Earners	-	-	-	3	3	1	2	3	1	-	-	-	-	-	-	-	-	-	-	10
Four Earners	-	-	-	-	3	1	2	3	-	-	-	-	-	-	-	-	-	-	-	9
Five Earners	-	-	-	-	-	6	9	7	4	5	1	1	-	-	-	-	-	-	-	33
5-6 Adults	-	-	-	-	-	1	2	-	-	-	-	-	-	-	-	-	-	-	-	3
No Earner	-	-	-	-	-	1	2	-	-	-	-	-	-	-	-	-	-	-	-	3
One Earner	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	3
Two Earners	-	-	-	-	-	-	1	1	2	2	1	-	-	-	-	-	-	-	-	4
Three Earners	-	-	-	-	-	2	1	2	2	3	-	-	-	-	-	-	-	-	-	8
Four Earners	-	-	-	-	-	2	3	3	2	-	-	1	-	-	-	-	-	-	-	11
Five+ Earners	-	-	-	-	-	1	2	1	-	-	-	-	-	-	-	-	-	-	-	4
7-10 Adults	-	-	-	-	-	-	2	1	2	3	2	1	3	1	1	-	1	-	-	14
No Earner	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
One Earner	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	1
Two Earners	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1
Three Earners	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
Four Earners	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1
Five+ Earners	-	-	-	-	-	-	-	-	-	1	1	1	-	-	1	-	1	-	-	6
11+ Adults	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
No Earner	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
One Earner	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Two Earners	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Three Earners	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Four Earners	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Five+ Earners	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL HOUSEHOLDS	2	4	12	14	18	22	18	13	7	9	3	2	3	1	1	1	2	-	-	131
No Earner	-	-	3	1	-	2	2	1	-	2	-	-	1	-	-	-	-	-	-	10
One Earner	2	3	5	1	1	3	4	1	2	3	1	-	-	-	-	-	-	-	-	22
Two Earners	-	1	2	3	7	5	3	4	1	3	-	-	-	-	-	-	-	-	-	26
Three Earners	-	-	2	9	7	8	3	6	1	3	1	1	1	-	-	-	-	-	-	38
Four Earners	-	-	-	-	3	1	5	1	3	1	1	1	1	1	1	-	1	-	-	24
Five+ Earners	-	-	-	-	-	1	2	1	1	-	-	-	-	-	-	-	1	-	-	11

TABLE 31

THE NUMBER OF INDIGENOUS HOUSEHOLDS CROSS-CLASSIFIED BY THE NUMBER OF PERSONS IN THE HOUSEHOLD AND THE NUMBER OF SUCH PERSONS WHO ARE ADULTS, SHOWING HOW MANY OF THOSE ADULTS ARE IN RECEIPT OF CASH INCOME FROM WAGES OR THEIR OWN BUSINESS

NUI

Adults and Cash Earner in Household	Total Number of Persons in the Households																			Total Households
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
One Adult	1	1																		2
No Earner																				1
One Earner	1	1																		1
Two Adults		5	4	7																16
No Earner		2	1	3																2
One Earner		1	3	4																6
Two Earners																				8
Three Adults			3	2	4	1	1	1												12
No Earner																				1
One Earner			1	2	3	1														6
Two Earners																				1
Three Earners			1		1	2	1	1	1											4
Four Adults					3		2													9
No Earner																				1
One Earner																				1
Two Earners																				1
Three Earners																				3
Four Earners																				4
5-6 Adults																				34
No Earner																				1
One Earner																				5
Two Earners																				2
Three Earners																				7
Four Earners																				11
Five+ Earners																				8
7-10 Adults																				13
No Earner																				1
One Earner																				2
Two Earners																				2
Three Earners																				2
Four Earners																				1
Five+ Earners																				8
11+ Adults																				1
No Earner																				1
One Earner																				1
Two Earners																				1
Three Earners																				1
Four Earners																				1
Five+ Earners																				1
TOTAL HOUSEHOLDS	1	6	7	9	8	8	9	13	6	8	7	2	1	2	1	1	1	1	1	87
No Earner	1	3	1	5	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	5
One Earner	1	2	1	4	2	3	3	3	2	1	1	1	1	1	1	1	1	1	1	19
Two Earners		1	4	4	3	2	2	4	2	1	1	1	1	1	1	1	1	1	1	19
Three Earners			1		3	2	1	3	3	2	2	1	1	1	1	1	1	1	1	16
Four Earners							3	2	1	5	3	1	1	1	1	1	1	1	1	11
Five+ Earners							3	2	1	5	3	1	1	1	1	1	1	1	1	17

TABLE 31

THE NUMBER OF INDIGENOUS HOUSEHOLDS CROSS-CLASSIFIED BY THE NUMBER OF PERSONS IN THE HOUSEHOLD AND THE NUMBER OF SUCH PERSONS WHO ARE ADULTS, SHOWING HOW MANY OF THOSE ADULTS ARE IN RECEIPT OF CASH INCOME FROM WAGES OR THEIR OWN BUSINESS

VAITUPU

Adults and Cash Earner in Household	Total Number of Persons in the Households																			Total Households
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
One Adult	4	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	7
No Earner	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
One Earner	3	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6
Two Adults	1	8	12	4	9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	33
No Earner	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
One Earner	1	4	4	1	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	13
Two Earners	1	4	8	3	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	19
Three Adults	1	1	9	16	7	2	3	1	1	1	1	1	1	1	1	1	1	1	1	37
No Earner	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4
One Earner	1	1	1	1	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	4
Two Earners	1	1	4	5	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14
Three Earners	1	1	3	9	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	15
Four Adults	1	1	1	2	8	13	6	1	3	1	1	1	1	1	1	1	1	1	1	33
No Earner	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
One Earner	1	1	1	1	1	8	3	1	2	1	1	1	1	1	1	1	1	1	1	15
Two Earners	1	1	1	1	3	3	2	1	1	1	1	1	1	1	1	1	1	1	1	10
Three Earners	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	6
Four Earners	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
Five+ Earners	1	1	1	1	5	3	9	11	3	1	1	1	1	1	1	1	1	1	1	32
5-6 Adults	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
No Earner	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
One Earner	1	1	1	1	1	1	2	4	2	1	1	1	1	1	1	1	1	1	1	9
Two Earners	1	1	1	1	2	1	2	2	1	1	1	1	1	1	1	1	1	1	1	4
Three Earners	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	5
Four Earners	1	1	1	1	1	1	5	3	1	1	1	1	1	1	1	1	1	1	1	3
Five+ Earners	1	1	1	1	2	1	1	3	5	6	5	4	1	1	1	1	1	1	1	11
7-10 Adults	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	25
No Earner	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
One Earner	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	1	1	2
Two Earners	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
Three Earners	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	1	1	2
Four Earners	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	8
Five+ Earners	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5
11+ Adults	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
No Earner	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
One Earner	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Two Earners	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Three Earners	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Four Earners	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Five+ Earners	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
TOTAL HOUSEHOLDS	4	11	21	22	29	18	18	15	11	6	6	4	1	2	1	1	1	1	1	168
No Earner	1	1	1	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	8
One Earner	3	7	5	2	7	9	5	5	5	1	1	1	1	1	1	1	1	1	1	49
Two Earners	1	4	12	9	9	5	4	2	3	1	3	1	1	1	1	1	1	1	1	53
Three Earners	1	1	3	10	5	4	4	1	1	4	1	1	1	1	1	1	1	1	1	34
Four Earners	1	1	1	1	3	1	1	4	1	1	1	1	1	1	1	1	1	1	1	10
Five+ Earners	1	1	1	1	2	1	5	3	1	1	2	1	1	1	1	1	1	1	1	14

TABLE 31

THE NUMBER OF INDIGENOUS HOUSEHOLDS CROSS-CLASSIFIED BY THE NUMBER OF PERSONS IN THE HOUSEHOLD AND THE NUMBER OF SUCH PERSONS WHO ARE ADULTS, SHOWING HOW MANY OF THOSE ADULTS ARE IN RECEIPT OF CASH INCOME FROM WAGES OR THEIR OWN BUSINESS

NUKUFETAU

Adults and Cash Earner in Household	Total Number of Persons in the Households																			Total Households
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
One Adult	5			1	1															7
No Earner	2			1																3
One Earner	3				1															4
Two Adults			4	6	4		1													19
No Earner		2		2	1															6
One Earner		1	1	2	1		1													7
Two Earners		1	2	2	2															20
Three Adults			6	3	8	1		1												2
No Earner				2				1												8
One Earner			2	1	3			1												6
Two Earners			3		2	1														4
Three Earners			1		3	6	3	1	2	1										22
Four Adults				3																
No Earner							1													2
One Earner								1												2
Two Earners					2															2
Three Earners				1	1	3	2		2	1										5
Four Earners				2	3															13
5-6 Adults					1	6	6	11	2			1								27
No Earner							1	1												1
One Earner					1		3	1												5
Two Earners						3	1	4												8
Three Earners						1		1	1											3
Four Earners							1	1	1											2
Five+ Earners							1	4				1								8
7-10 Adults								5	2	3		2								12
No Earner								1												1
One Earner								1												1
Two Earners								1												1
Three Earners										1										1
Four Earners								3	1	2		2								8
Five+ Earners																				
11+ Adults																				
No Earner																				
One Earner																				
Two Earners																				
Three Earners																				
Four Earners																				
Five+ Earners																				
TOTAL HOUSEHOLDS	5	4	10	13	20	13	10	18	7	4		3								107
No Earner	2	2	1	5	1		1	1	1											13
One Earner	3	1	3	3	6		5	4	1											26
Two Earners		1	5	2	7	3	1	5												24
Three Earners			1	1	3	5	1	1	1											12
Four Earners				2	3	3	2	1	3	2		3								16
Five+ Earners					1	2	1	7	1	2										16

TABLE 31

THE NUMBER OF INDIGENOUS HOUSEHOLDS CROSS-CLASSIFIED BY THE NUMBER OF PERSONS IN THE HOUSEHOLD AND THE NUMBER OF SUCH PERSONS WHO ARE ADULTS, SHOWING HOW MANY OF THOSE ADULTS ARE IN RECEIPT OF CASH INCOME FROM WAGES OR THEIR OWN BUSINESS

FUNAFUTI

Adults and Cash Earner in Household	Total Number of Persons in the Households																			Total Households
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
One Adult	11																			11
No Earner	2																			2
One Earner	9																			9
Two Adults		12	10	7	3	3	1													36
No Earner		4	3	4	2															8
One Earner		4	3	4	1															13
Two Earners		4	4	3		2	1													15
Three Adults			8	14	15	4	2		1											44
No Earner			2	1	1															2
One Earner			3	7	6	3	2													20
Two Earners			3	5	6															15
Three Earners			3	1	2	1														7
Four Adults				11	16	12	4	5			1									49
No Earner																				
One Earner				5	4	4	3	4			1									21
Two Earners				4	5	7	1													16
Three Earners				2	5	1														9
Four Earners					2			1												3
5-6 Adults					4	15	20	18	5	7	3	1								73
No Earner						1	2	1		1										2
One Earner					2	2	9	9	1	1	2									8
Two Earners						5	6	3	2	1										30
Three Earners						2	1	5	1	3	1									16
Four Earners						5	2													15
Five+ Earners							2													2
7-10 Adults								9	12	6	11	7	3	2	1	2				53
No Earner																				
One Earner											1									2
Two Earners								2	5	1	3	1								12
Three Earners								3	4	1	5	2			1	2				15
Four Earners								3	1	2	2	4	1	1						10
Five+ Earners								2	1				2	1						14
11+ Adults													5	6	1	1		2	3	18
No Earner																				
One Earner																				1
Two Earners																				1
Three Earners																				2
Four Earners																				2
Five+ Earners																				13
TOTAL HOUSEHOLDS	11	12	18	32	38	34	27	32	18	13	15	8	8	8	2	3	1	2	3	284
No Earner	2	4	3	1	1	2	7	1	2	1	2									14
One Earner	9	4	5	16	14	9	10	4	7	3	5	1		1						74
Two Earners		4	7	12	14	14	7	11	6	2	6	1	1		1	2				88
Three Earners			3	3	7	4	7	5	2	5	2	2	1		1			1		49
Four Earners					2	5	1	9	1	2	2	4	6	6	1	1		1		30
Five+ Earners							2	2	1	2	2	4	1	1		1		1	2	29

TABLE 31

THE NUMBER OF INDIGENOUS HOUSEHOLDS CROSS-CLASSIFIED BY THE NUMBER OF PERSONS IN THE HOUSEHOLD AND THE NUMBER OF SUCH PERSONS WHO ARE ADULTS, SHOWING HOW MANY OF THOSE ADULTS ARE IN RECEIPT OF CASH INCOME FROM WAGES OR THEIR OWN BUSINESS

NUKULAEALAE

Adults and Cash Earner in Household	Total Number of Persons in the Households																			Total Households
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
One Adult	1																			1
No Earner	1																			1
One Earner																				
Two Adults			2	3	3		1													9
No Earner																				
One Earner			1	1	1		1													4
Two Earners			1	2	2															5
Three Adults			3	1	1															5
No Earner																				
One Earner			2																	2
Two Earners			1	1	1															2
Three Earners																				
Four Adults				1		2	2	1												1
No Earner																				
One Earner				1			1													6
Two Earners						2														2
Three Earners							1	1												2
Four Earners																				2
Five Earners																				
5-6 Adults						3	5	6	2											16
No Earner								1												1
One Earner						1	1													1
Two Earners							4													1
Three Earners							4	1												1
Four Earners						1		1												2
Five+ Earners						1		1												2
7-10 Adults								4	3	3		1			2					13
No Earner								1												1
One Earner																				1
Two Earners								2							1					3
Three Earners								1		1		1			1					4
Four Earners								1	2											3
Five+ Earners										2										2
11+ Adults																				
No Earner																				
One Earner																				
Two Earners																				
Three Earners																				
Four Earners																				
Five+ Earners																				
TOTAL HOUSEHOLDS	1		5	5	4	5	8	11	5	3		1			2					50
No Earner	1																			2
One Earner			3	3	1	1	2	1												9
Two Earners			2		2	2	5	6	1	1		1			1					13
Three Earners					1		1	1	3											17
Four Earners						1		1		2										5
Five+ Earners																				4

TABLE 31

THE NUMBER OF INDIGENOUS HOUSEHOLDS CROSS-CLASSIFIED BY THE NUMBER OF PERSONS IN THE HOUSEHOLD AND THE NUMBER OF SUCH PERSONS WHO ARE ADULTS, SHOWING HOW MANY OF THOSE ADULTS ARE IN RECEIPT OF CASH INCOME FROM WAGES OR THEIR OWN BUSINESS

NIULAKITA

Adults and Cash Earner in Household	Total Number of Persons in the Households																			Total Households
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
One Adult	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
No Earner	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
One Earner	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Two Adults	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	2
No Earner	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
One Earner	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	2
Two Earners	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Three Earners	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Four Adults	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	2
No Earner	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	2
One Earner	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Two Earners	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Three Earners	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Four Earners	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1
5-6 Adults	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1
No Earner	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
One Earner	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1
Two Earners	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Three Earners	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Four Earners	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1
Five+ Earners	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
7-10 Adults	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	2
No Earner	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
One Earner	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Two Earners	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Three Earners	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	2
Four Earners	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Five+ Earners	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
11+ Adults	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
No Earner	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
One Earner	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Two Earners	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Three Earners	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Four Earners	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Five+ Earners	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
TOTAL HOUSEHOLDS	-	1	-	1	-	1	-	3	2	-	1	-	-	-	-	-	-	-	-	9
No Earner	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
One Earner	-	1	-	1	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	4
Two Earners	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Three Earners	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1
Four Earners	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	2
Five+ Earners	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1

TABLE 31
THE NUMBER OF INDIGENOUS HOUSEHOLDS CROSS-CLASSIFIED BY THE NUMBER OF PERSONS IN THE HOUSEHOLD AND THE NUMBER OF SUCH PERSONS WHO ARE ADULTS, SHOWING HOW MANY OF THOSE ADULTS ARE IN RECEIPT OF CASH INCOME FROM WAGES OR THEIR OWN BUSINESS
TUVALU

Adults and Cash Earner in Household	Total Number of Persons in the Households																			Total Households
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
One Adult	36	9	2	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	51
No Earner	7	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	11
One Earner	29	7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	40
Two Adults	-	43	53	35	28	10	5	3	1	1	1	1	1	1	1	1	1	1	1	177
No Earner	-	9	5	2	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	21
One Earner	-	16	16	12	9	2	2	1	1	1	1	1	1	1	1	1	1	1	1	58
Two Earners	-	18	32	21	15	7	3	2	1	1	1	1	1	1	1	1	1	1	1	98
Three Adults	-	-	43	64	60	21	11	2	4	1	1	1	1	1	1	1	1	1	1	206
No Earner	-	-	5	5	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	13
One Earner	-	-	9	12	14	5	3	1	1	1	1	1	1	1	1	1	1	1	1	45
Two Earners	-	-	13	15	19	3	5	1	1	1	1	1	1	1	1	1	1	1	1	56
Three Earners	-	-	16	32	24	13	3	1	3	1	1	1	1	1	1	1	1	1	1	92
Four Adults	-	-	-	29	47	49	31	19	9	2	1	1	1	1	1	1	1	1	1	187
No Earner	-	-	-	6	6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
One Earner	-	-	-	5	11	14	5	6	1	1	1	1	1	1	1	1	1	1	1	44
Two Earners	-	-	-	9	11	10	5	6	1	1	1	1	1	1	1	1	1	1	1	36
Three Earners	-	-	-	9	11	10	5	6	1	1	1	1	1	1	1	1	1	1	1	42
Four Earners	-	-	-	9	19	11	12	6	5	1	1	1	1	1	1	1	1	1	1	63
5-6 Adults	-	-	-	-	14	55	66	79	25	23	11	4	1	1	1	1	1	1	1	277
No Earner	-	-	-	-	3	2	3	3	1	1	1	1	1	1	1	1	1	1	1	8
One Earner	-	-	-	-	3	6	8	9	5	1	2	1	1	1	1	1	1	1	1	34
Two Earners	-	-	-	-	9	9	14	16	2	4	2	1	1	1	1	1	1	1	1	47
Three Earners	-	-	-	-	5	9	14	14	5	7	1	1	1	1	1	1	1	1	1	56
Four Earners	-	-	-	-	2	14	5	15	8	4	2	1	1	1	1	1	1	1	1	50
Five+ Earners	-	-	-	-	4	15	22	22	5	7	4	3	1	1	1	1	1	1	1	82
7-10 Adults	-	-	-	-	-	-	1	25	29	29	27	20	8	8	5	2	1	1	1	155
No Earner	-	-	-	-	-	-	-	1	3	1	1	1	1	1	1	1	1	1	1	6
One Earner	-	-	-	-	-	-	-	1	2	1	4	2	1	1	1	1	1	1	1	9
Two Earners	-	-	-	-	-	-	-	5	6	2	4	2	1	1	2	2	1	1	1	22
Three Earners	-	-	-	-	-	-	-	4	7	6	6	3	2	2	2	2	1	1	1	32
Four Earners	-	-	-	-	-	-	-	6	5	6	2	3	1	1	1	1	1	1	1	26
Five+ Earners	-	-	-	-	-	-	1	8	6	14	11	12	4	3	1	1	1	1	1	60
11+ Adults	-	-	-	-	-	-	-	-	-	-	-	-	5	8	6	1	1	2	3	26
No Earner	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
One Earner	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Two Earners	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Three Earners	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Four Earners	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7
Five+ Earners	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15
TOTAL HOUSEHOLDS	36	52	98	131	150	135	114	128	67	55	39	24	13	16	11	3	2	2	3	1079
No Earner	7	11	10	9	7	4	3	5	3	4	7	1	1	2	1	1	1	1	1	61
One Earner	29	23	27	31	33	26	22	18	9	4	6	2	1	2	2	1	1	1	1	231
Two Earners	-	18	45	41	45	33	27	23	10	6	6	2	1	2	2	1	1	1	1	260
Three Earners	-	-	16	41	40	32	22	25	16	13	7	3	1	2	2	2	1	1	1	223
Four Earners	-	-	-	9	21	25	17	27	18	11	4	3	6	1	2	1	1	1	1	146
Five+ Earners	-	-	-	-	4	15	23	30	11	21	15	15	5	9	5	1	2	1	2	158

TABLE 32

THE NUMBER OF INDIGENOUS HOUSEHOLDS IN WHICH ONE OR MORE PERSONS
ARE ENGAGED IN SELECTED TRADITIONAL ACTIVITIES, BY ISLAND

Person in Households	Total Households	FISHING		LANDS		HOUSE		HANDICRAFT			NOTE	
		Ocean Lagoon	Reef Collecting	Toddy Pulaka	Copra	Chickens and Pigs	Toddy Dry-salting Syrup Fish	Firewood Collecting	Mats	Baskets String etc	Thatch House Building	
NANUMEA												
1 Person	10	5	7	7	9	9	3	9	4	6	4	-
2 Persons	9	4	7	6	8	9	4	8	8	5	4	-
3 Persons	18	10	13	18	17	18	13	18	18	13	18	-
4 Persons	19	14	17	17	18	19	13	19	19	12	19	-
5 Persons	13	11	12	12	12	13	10	13	13	9	11	-
6 Persons	16	16	16	14	15	16	16	16	16	10	13	-
7-8 Persons	27	23	26	25	26	27	23	27	27	20	27	-
9-10 Persons	11	11	11	10	10	11	10	11	11	10	14	-
11+ Persons	17	16	17	17	17	17	16	17	17	14	17	-
ALL HOUSEHOLDS	140	110	126	124	120	139	108	121	133	127	133	84
NANUMAGA												
1 Person	2	1	2	2	2	2	1	2	-	1	-	-
2 Persons	5	3	4	3	3	5	3	3	4	3	4	-
3 Persons	7	6	7	7	7	7	6	7	7	5	7	-
4 Persons	16	11	14	16	16	16	11	12	15	13	15	-
5 Persons	20	15	18	20	18	20	15	17	19	17	19	-
6 Persons	18	15	18	18	18	18	15	17	18	16	18	-
7-8 Persons	20	18	20	19	19	20	19	20	20	17	20	-
9-10 Persons	12	11	12	12	12	12	11	12	12	11	12	-
11+ Persons	3	3	3	3	3	3	3	3	3	3	3	-
ALL HOUSEHOLDS	103	83	98	98	98	103	84	92	98	96	98	2
NIUTAO												
1 Person	2	1	1	2	2	2	1	2	1	1	1	-
2 Persons	4	2	2	3	4	4	4	4	2	1	2	-
3 Persons	12	7	4	9	9	11	7	12	10	2	10	-
4 Persons	14	9	8	11	13	13	7	12	11	4	9	-
5 Persons	18	12	10	17	18	18	11	18	14	15	13	-
6 Persons	22	14	11	21	18	22	18	22	17	11	13	-
7-8 Persons	31	29	19	28	29	31	24	29	30	19	27	-
9-10 Persons	16	12	11	15	16	16	11	15	14	11	13	-
11+ Persons	12	7	7	12	11	12	11	12	11	8	10	-
ALL HOUSEHOLDS	131	92	72	108	120	129	94	56	110	67	98	2

TABLE 32
THE NUMBER OF INDIGENOUS HOUSEHOLDS IN WHICH ONE OR MORE PERSONS
ARE ENGAGED IN SELECTED TRADITIONAL ACTIVITIES, BY ISLAND

Person in Households	Total Households	FISHING		LANDS		HOUSE		HANDICRAFT			NONE
		Ocean Lagoon	Reef Collecting	Toddy Pulaka	Chickens and Pigs	Toddy Dry-salting Syrup	Firewood Collecting	Mats	Baskets etc	String Thatch	House Building
NUI											
1 Person	1	1	1	1	1	1	1	1	1	1	1
2 Persons	6	5	6	4	3	4	6	3	2	3	1
3 Persons	7	4	5	6	6	4	7	7	2	7	1
4 Persons	9	7	9	7	9	8	9	4	4	7	1
5 Persons	8	7	8	6	8	7	8	1	4	7	1
6 Persons	8	8	7	8	8	7	8	3	4	7	1
7-8 Persons	22	18	20	21	22	21	22	8	16	8	1
9-10 Persons	14	12	14	13	14	13	14	22	10	22	1
11+ Persons	12	12	12	12	12	12	12	14	5	14	1
ALL HOUSEHOLDS	87	74	83	76	85	76	86	80	26	57	80
VAITUPU											
1 Person	4	1	2	1	1	3	1	2	1	1	1
2 Persons	11	4	5	8	9	4	10	6	4	8	7
3 Persons	21	12	16	20	20	15	21	17	14	16	12
4 Persons	22	16	18	18	18	13	20	21	18	21	13
5 Persons	29	21	26	25	28	23	28	27	22	27	15
6 Persons	18	13	15	17	18	11	18	17	15	17	10
7-8 Persons	33	27	32	32	33	28	32	33	26	33	26
9-10 Persons	17	16	17	16	16	16	17	17	16	17	9
11+ Persons	13	10	11	12	13	12	12	13	12	13	8
ALL HOUSEHOLDS	168	119	151	119	159	125	158	153	127	102	100
NUKUNEAU											
1 Person	5	1	2	1	5	1	4	4	3	5	1
2 Persons	4	3	8	2	3	3	2	1	1	1	1
3 Persons	10	6	7	9	9	7	9	6	4	4	2
4 Persons	13	8	8	7	10	8	11	7	4	6	3
5 Persons	20	16	19	20	20	16	20	14	6	14	4
6 Persons	13	13	12	13	13	13	12	9	3	9	7
7-8 Persons	28	27	27	26	28	27	28	23	14	22	16
9-10 Persons	11	9	11	11	11	11	10	7	1	5	5
11+ Persons	3	2	3	3	3	3	3	2	1	1	1
ALL HOUSEHOLDS	107	85	90	84	102	88	99	79	33	55	39
											2

TABLE 32

THE NUMBER OF INDIGENOUS HOUSEHOLDS IN WHICH ONE OR MORE PERSONS
ARE ENGAGED IN SELECTED TRADITIONAL ACTIVITIES, BY ISLAND

Person in Households	Total Households	FISHING		LANDS		HOUSE		HANDICRAFT				NONE
		Ocean Lagoon	Reef Collecting	Toddy Palaka Copra	Chickens and Pigs	Toddy Dry-salting Syrup Fish	Firewood Collecting	Mats	Baskets etc	String Thatch	House Building	
FUNAFUTI												
1 Person	11	7	10	3	2	3	4	1	1	2	1	1
2 Persons	12	5	8	5	2	6	8	1	1	2	2	1
3 Persons	18	10	6	4	5	4	13	2	6	4	7	1
4 Persons	32	23	9	16	9	12	23	3	10	2	7	1
5 Persons	38	27	21	23	10	21	29	3	9	4	7	1
6 Persons	34	26	16	20	12	17	21	1	6	2	3	1
7-8 Persons	59	53	37	40	28	36	50	9	21	3	7	1
9-10 Persons	31	25	15	25	15	19	24	3	12	1	9	1
11+ Persons	49	42	35	36	20	30	44	10	16	7	14	1
ALL HOUSEHOLDS	284	218	199	172	103	148	216	81	33	26	56	4
NUKULAEALAE												
1 Person	1	1	1	1	1	1	1	1	1	1	1	1
2 Persons	1	2	2	2	3	4	5	3	3	4	2	1
3 Persons	5	5	5	4	5	5	5	4	4	5	2	1
4 Persons	5	4	4	4	4	4	4	4	3	4	1	1
5 Persons	5	5	5	5	5	5	5	5	5	5	2	1
6 Persons	19	18	19	18	17	18	19	17	18	18	1	1
7-8 Persons	8	8	8	8	8	8	8	7	8	8	1	1
9-10 Persons	3	3	3	3	3	3	3	3	3	3	1	1
ALL HOUSEHOLDS	50	45	46	45	49	47	49	42	45	47	7	1
NIULAKITA												
1 Person	1	1	1	1	1	1	1	1	1	1	1	1
2 Persons	1	1	1	1	1	1	1	1	1	1	1	1
3 Persons	1	1	1	1	1	1	1	1	1	1	1	1
4 Persons	1	1	1	1	1	1	1	1	1	1	1	1
5 Persons	1	1	1	1	1	1	1	1	1	1	1	1
6 Persons	1	1	1	1	1	1	1	1	1	1	1	1
7-8 Persons	3	2	3	2	3	3	2	1	3	2	1	1
9-10 Persons	2	2	2	2	2	2	2	1	2	2	1	1
11+ Persons	1	1	1	1	1	1	1	1	1	1	1	1
ALL HOUSEHOLDS	9	6	7	6	7	7	7	3	7	7	1	2

TABLE 32

THE NUMBER OF INDIGENOUS HOUSEHOLDS IN WHICH ONE OR MORE PERSONS
ARE ENGAGED IN SELECTED TRADITIONAL ACTIVITIES, BY ISLAND

Person in Households	Total Households	FISHING		LANDS		HOUSE		HANDICRAFT			NONE
		Ocean Lagoon	Reef Net	Toddy Pulaka	Copra	Chickens and Pigs	Toddy Dry-salting Syrup Fish	Firewood Collecting	Mats Baskets etc	String Thatch	House Building
TUVALU											
1 Person	36	15	20	10	20	17	23	21	11	8	4
2 Persons	52	26	33	28	27	44	43	43	19	16	14
3 Persons	98	57	55	53	78	67	91	92	53	41	31
4 Persons	131	93	81	83	95	82	120	114	75	58	37
5 Persons	150	113	104	107	114	98	146	137	87	74	36
6 Persons	135	111	89	103	108	95	131	121	106	61	35
7-8 Persons	242	215	183	199	169	240	156	230	210	148	64
9-10 Persons	122	106	83	109	100	85	78	113	104	72	33
11+ Persons	113	96	92	96	83	61	67	107	89	65	36
ALL HOUSEHOLDS	1079	832	740	788	825	701	777	978	844	602	290
											9

TABLE 33

THE NUMBER OF INDIGENOUS HOUSEHOLDS BY ISLAND BY THE DIFFERENT TYPES OF SELECTED TRADITIONAL ACTIVITIES IN WHICH THE HOUSEHOLD MEMBERS ARE REGULARLY INVOLVED

Island and Households Participating	Total Households	Fishing Lands House Handicraft	Fishing Lands House Handicraft	Fishing lands House Handicraft	Fishing House Handicraft	Fishing lands House Handicraft	Lands House Handicraft	Fishing lands House Handicraft	Fishing House Handicraft	Fishing lands House Handicraft	Fishing House Handicraft	Fishing lands House Handicraft	Fishing House Handicraft	Fishing lands House Handicraft	Fishing House Handicraft	Fishing lands House Handicraft	Fishing House Handicraft
NANUMEA Men only Women only Men and Women	6 11 123	6 6 118	- - -	- - -	- - -	- - -	2 2 5	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
TOTAL	140	130	1	-	-	7	-	-	1	-	-	-	-	-	-	-	-
NANUMAGA Men only Women only Men and Women	3 5 95	2 3 93	1 - 1	- - -	- - -	- - -	2 2 1	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
TOTAL	103	98	2	-	-	2	-	-	1	-	-	-	-	-	-	-	-
NEUTAO Men only Women only Men and Women	4 11 116	- 4 92	4 - 9	- - 3	- - -	- 6 9	- - -	- - -	- - 2	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
TOTAL	131	96	13	3	3	15	-	-	2	-	-	-	-	-	-	1	-
NUI Men only Women only Men and Women	1 4 82	- 2 76	1 1 -	1 - 3	- - -	1 1 3	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
TOTAL	87	78	1	4	4	4	-	-	-	-	-	-	-	-	-	-	-
VAITUPU Men only Women only Men and Women	1 5 10 152	3 7 149	- - 1	- - -	- - -	1 2 1	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
TOTAL	168	159	1	-	-	3	-	-	1	-	-	1	-	-	1	-	1

TABLE 33

Island and Households Participating	Total Households	Fishing Lands House Handicraft	Fishing lands House Handicraft	Fishing Fishing House Handicraft	Fishing Fishing House Handicraft	Lands House Handicraft	Fishing Fishing House Handicraft	Fishing Fishing House Handicraft	Fishing Fishing House Handicraft	Fishing Fishing House Handicraft	Fishing Fishing House Handicraft	Fishing Fishing House Handicraft
NUKUFETAU	2											
Men only	2	1	1	-	-	-	-	-	-	-	-	-
Women only	15	7	1	-	-	6	-	-	-	-	-	-
Men and Women	88	71	13	-	-	1	-	-	-	-	-	-
TOTAL	107	79	13	-	-	7	-	1	2	-	-	-
PUNAFUTI	4											
Men only	12	2	5	1	-	-	-	1	-	-	-	-
Women only	8	1	-	1	-	2	-	-	2	-	-	-
Men and Women	260	133	81	11	14	-	14	2	3	-	2	1
TOTAL	284	136	86	13	14	2	14	3	5	4	2	1
NUKULAEALAE												
Men only	3	-	-	-	-	-	-	-	-	-	-	-
Women only	47	46	1	-	-	-	-	-	-	-	-	-
Men and Women												
TOTAL	50	46	1	-	-	2	-	-	-	-	1	-
NIULAKITA	2											
Men only	-	-	-	-	-	-	-	-	-	-	-	-
Women only	-	-	-	-	-	-	-	-	-	-	-	-
Men and Women	7	7	-	-	-	-	-	-	-	-	-	-
TOTAL	9	7	-	-	-	-	-	-	-	-	-	-
TUVALU	9											
Men only	33	14	11	2	-	-	-	1	-	-	1	-
Women only	67	30	3	1	-	23	-	-	3	-	1	-
Men and Women	970	785	106	17	14	19	14	3	7	6	2	1
TOTAL	1079	829	120	20	14	42	14	4	4	10	4	2

TABLE 34

THE NUMBER OF INDIGENOUS HOUSEHOLDS BY TYPE OF TRADITIONAL ACTIVITY AND BY SOURCE OF CASH INCOME, BY ISLAND

[illegible]

THE NUMBER OF INDIGENOUS HOUSEHOLDS BY TYPE OF TRADITIONAL ACTIVITY
AND BY SOURCE OF CASH INCOME, BY ISLAND

Island by Source of Income	Total Households	Fishing Lands Handi- craft	Fishing Lands House craft	Fishing Lands Handi- craft	Fishing Lands House craft	Fishing Handi- craft	Fishing Lands House craft	Fishing Lands Handi- craft	Fishing Lands House craft	Handi- craft only	NONE
NUI											
Wages only	5	4	-	1	-	-	-	-	-	-	-
Business only	-	-	-	-	-	-	-	-	-	-	-
Pension only	-	-	-	-	-	-	-	-	-	-	-
Produce only	14	12	1	-	-	-	-	-	-	-	-
Remittance only	6	3	-	1	-	-	-	-	-	-	-
Wages and other	14	14	-	-	-	-	-	-	-	-	-
Business and other }	-	-	-	-	-	-	-	-	-	-	-
Not Wages	-	-	-	-	-	-	-	-	-	-	-
Produce, Pension }	47	44	-	2	-	-	-	-	-	-	-
and Remittance }	1	1	-	-	-	-	-	-	-	-	-
No Cash Income											
TOTAL	87	78	1	4	-	-	-	-	-	-	-
VAITUPU											
Wages only	19	17	-	-	-	-	-	-	-	-	-
Business only	-	-	-	-	-	-	-	-	-	-	-
Pension only	1	1	-	-	-	-	-	-	-	-	-
Produce only	25	23	1	-	-	-	-	-	-	-	-
Remittance only	5	3	-	-	-	-	-	-	-	-	-
Wages and other	71	68	-	-	-	-	-	-	-	-	-
Business and other }	-	-	-	-	-	-	-	-	-	-	-
Not Wages	-	-	-	-	-	-	-	-	-	-	-
Produce, Pension }	44	44	-	-	-	-	-	-	-	-	-
and Remittance }	3	3	-	-	-	-	-	-	-	-	-
No Cash Income											
TOTAL	168	159	1	-	-	-	-	1	1	-	1
NUKUFETAU											
Wages only	1	-	-	-	-	-	-	-	-	-	1
Business only	-	-	-	-	-	-	-	-	-	-	-
Pension only	-	1	-	-	-	-	-	-	-	-	-
Produce only	15	12	3	-	-	-	-	-	-	-	-
Remittance only	10	3	-	-	-	1	-	-	-	-	-
Wages and other	18	13	4	-	-	-	-	-	-	-	1
Business and other }	-	-	-	-	-	-	-	-	-	-	-
Not Wages	-	-	-	-	-	-	-	-	-	-	-
Produce, Pension }	59	50	8	-	-	-	-	-	-	-	-
and Remittance }	3	-	-	-	-	-	1	-	-	-	-
No Cash Income											
TOTAL	107	79	15	-	-	1	1	-	-	-	2

THE NUMBER OF INDIGENOUS HOUSEHOLDS BY TYPE OF TRADITIONAL ACTIVITY AND BY SOURCE OF CASH INCOME, BY ISLAND

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TABLE 34

Island by Source of Income	Total Households	Fishing Lands Handi- craft	Fishing Lands Handi- craft	Fishing House craft	Fishing Lands Handi- craft	Fishing House craft	Fishing Lands Handi- craft	Fishing House craft	Lands Handi- craft	Lands Handi- craft	Fishing only	Fishing Lands only	House craft	Handi- craft	only
TUVALU															
Wages only	187	89	51	9	2	2	8	2	5	2	1	3	1	1	4
Business only	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Pension only	4	3	1	1	-	-	-	-	-	-	-	-	-	-	-
Produce only	161	137	11	1	-	-	10	1	1	1	-	-	-	-	1
Remittance only	41	17	5	2	-	1	9	1	2	1	1	1	-	-	3
Wages and other	287	230	35	4	1	1	6	1	2	1	1	1	-	-	1
Business and other)	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
Not Wages															
Produce, Pension) and Remittance	373	337	16	4	-	-	-	-	-	1	-	-	-	-	-
No Cash Income	23	13	1	-	1	4	-	1	-	1	1	-	-	1	1
TOTAL	1079	829	120	20	4	42	14	4	10	7	10	4	-	2	9

TABLE 35

THE NUMBER OF CAPITAL GOODS DESCRIBED AS 'IN USE' OR 'NOT USED' (AWAITING REPAIRS) IN
INDIGENOUS HOUSEHOLDS BY ISLAND

ISLANDS	TOTAL HOUSEHOLDS	RADIO		GUITAR and UKULELE		CAMERA		MOTORCYCLE		BICYCLE		POWER BOAT		CANOE		FISHING NET		SEWING MACHINE		FREEZER	
		IN USE	NOT USED	IN USE	NOT USED	IN USE	NOT USED	IN USE	NOT USED	IN USE	NOT USED	IN USE	NOT USED	IN USE	NOT USED	IN USE	NOT USED	IN USE	NOT USED	IN USE	NOT USED
Nanumea	140	84	23	28	3	12	2	10	1	92	16	21	7	174	9	141	10	124	9	8	7
Nanumaga	103	43	18	17	3	4	2	1	1	92	9	1	-	82	7	30	7	94	6	2	1
Niutao	131	65	30	19	4	4	1	1	2	119	17	-	-	116	7	29	10	120	14	4	-
Nui	87	57	24	8	-	5	-	3	-	46	34	2	2	83	14	38	7	73	8	2	1
Vaitupu	168	156	93	40	10	30	9	37	11	139	49	13	-	109	23	118	32	141	9	11	6
Nukufetau	107	90	40	24	6	8	3	-	1	26	3	15	3	112	46	74	20	79	9	5	3
Funafuti	284	319	133	67	14	115	15	88	45	63	33	90	24	134	16	167	18	242	15	122	11
Nukulaelae	50	50	2	19	4	6	-	-	-	19	-	5	-	96	1	48	1	32	4	4	-
Niulakita	9	1	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	4	1	-	-
TOTAL TUVALU	1079	865	363	222	44	184	32	140	61	596	161	147	36	906	123	647	105	909	75	158	29

TABLE 36

THE NUMBER OF INDIGENOUS HOUSEHOLDS BY ISLAND CLASSIFIED BY THE NUMBER OF THE ELEVEN SELECTED CAPITAL GOODS WHICH THE HOUSEHOLD POSSESSES

	TOTAL HOUSEHOLDS	ALL LISTED	RADIO, GUITAR or UKULELE, CAMERA, CAR or GOODS VEHICLE, MOTORCYCLE, BICYCLE, POWER BOAT, CANOE, FISHING NET, SEWING MACHINE, REFRIGERATOR or FREEZER										
			10	9	8	7	6	5	4	3	2	1	NONE
Nanumea	140	-	-	-	-	8	10	26	28	28	22	12	6
Nanumaga	103	-	-	-	-	-	3	12	25	25	23	11	4
Niutao	131	-	-	-	-	-	5	13	31	36	25	16	5
Nui	87	-	-	-	1	-	4	8	20	18	17	14	5
Vaitupu	168	-	-	2	2	5	20	28	33	41	16	15	6
Nukunetau	107	-	-	-	1	2	6	14	12	29	22	17	4
Funafuti	284	-	1	2	15	18	41	43	50	41	36	25	12
Nukulaelae	50	-	-	-	-	3	5	5	13	12	7	2	3
Niulakita	9	-	-	-	-	-	-	-	-	-	1	5	3
TOTAL TUVALU	1079		1	4	19	36	94	149	212	230	169	117	48

TABLE 37

THE NUMBER OF CAPITAL GOODS BY TYPE OF ITEMS AND SOURCE OF INCOME OF INDIGENOUS HOUSEHOLDS BY ISLAND

Islands By Source of Income	Total Households	Radio	Guitar and Ukulele	Camera	Motorcycle	Bicycle	Power Boat	Canoe	Fishing Net	Sewing Machine	Frig. or Freezer
NANUMEA											
Wages only	1	1	1	1	1	1	1	1	1	1	1
Business only	1	1	1	1	1	1	1	1	1	1	1
Pension only	38	19	2	2	1	22	9	40	35	37	1
Produce only	4	2	12	7	6	33	8	3	1	3	3
Remittance only	32	35	1	1	1	1	1	40	53	33	8
Wages and other	1	1	1	1	1	1	1	3	1	1	1
Business and other	62	49	16	5	4	51	11	94	60	57	4
Produce, Pension and Remittances	3	1	1	1	1	1	1	3	1	2	1
No Cash Income											
TOTAL	140	107	31	14	11	108	28	183	151	133	15
NANUMAGA											
Wages only	2	1	1	11	1	2	1	2	1	2	1
Business only	1	1	1	1	1	1	1	1	1	1	1
Pension only	28	12	7	1	1	26	1	23	8	23	1
Produce only	1	1	1	1	1	1	1	1	1	1	1
Remittance only	13	8	1	2	1	13	1	12	6	14	1
Wages and other	1	1	1	1	1	1	1	1	1	1	1
Business and other	57	39	11	3	1	60	1	52	22	58	1
Produce, Pension and Remittances	2	1	1	1	1	1	1	1	1	2	1
No Cash Income											
TOTAL	103	61	20	6	2	101	1	89	37	100	3
NIUTAO											
Wages only	2	3	1	1	1	1	1	1	1	2	1
Business only	1	1	1	1	1	1	1	1	1	1	1
Pension only	31	16	5	1	1	27	1	24	19	27	2
Produce only	6	4	2	2	1	8	1	4	4	6	1
Remittance only	20	16	6	2	1	23	1	21	6	23	1
Wages and other	1	1	1	1	1	1	1	1	1	1	1
Business and other	69	56	10	2	1	76	1	72	9	72	2
Produce, Pension and Remittances	3	1	1	1	1	1	1	1	1	4	1
No Cash Income											
TOTAL	131	95	23	5	3	136	1	123	39	134	4

TABLE 37

THE NUMBER OF CAPITAL GOODS BY TYPE OF ITEMS AND SOURCE OF INCOME OF INDIGENOUS HOUSEHOLDS BY ISLAND

Islands By Source of Income	Total Households	Radio	Guitar and Ukulele	Camera	Motorcycle	Bicycle	Power Boat	Canoe	Fishing Net	Sewing Machine	Frig. or Freezer
NUI											
Wages only	5	5	1	-	-	6	-	2	3	4	-
Business only	-	-	-	-	-	-	-	-	-	-	-
Pension only	14	7	1	-	-	11	-	11	7	14	-
Produce only	6	2	-	-	-	4	-	6	2	5	-
Remittance only	14	22	4	3	-	12	-	16	10	13	2
Wages and other	-	-	-	-	-	-	-	-	-	-	-
Business and other	-	-	-	-	-	-	-	-	-	-	-
Not Wages	-	-	-	-	-	-	-	-	-	-	-
Produce, Pension	47	45	2	2	3	47	4	62	23	44	1
and Remittances }	1	-	-	-	-	-	-	-	-	1	-
No Cash Income											
TOTAL	87	81	8	5	3	80	4	97	45	81	3
VAITUPU											
Wages only	19	26	5	8	10	20	1	20	20	13	4
Business only	-	1	-	-	-	-	-	-	-	-	-
Pension only	25	28	7	1	6	28	1	20	20	23	-
Produce only	5	5	-	-	-	1	-	1	1	2	-
Remittance only	71	115	22	23	23	86	10	62	76	68	11
Wages and other	-	-	-	-	-	-	-	-	-	-	-
Business and other	-	-	-	-	-	-	-	-	-	-	-
Not Wages	-	-	-	-	-	-	-	-	-	-	-
Produce, Pension	44	70	16	7	7	51	1	27	30	39	2
and Remittances }	3	4	-	-	2	2	-	2	3	5	-
No Cash Income											
TOTAL	168	249	50	39	48	188	13	132	150	150	17
NUKUPETAU											
Wages only	1	-	1	-	-	1	-	-	-	-	1
Business only	-	2	-	-	-	-	-	-	-	-	-
Pension only	15	16	6	1	1	6	4	3	2	1	-
Produce only	10	11	-	1	-	-	-	23	13	11	3
Remittance only	18	30	6	4	-	8	4	9	4	5	1
Wages and other	-	-	-	-	-	-	-	31	20	15	2
Business and other	-	-	-	-	-	-	-	-	-	-	-
Not Wages	-	-	-	-	-	-	-	-	-	-	-
Produce, Pension	59	69	17	5	-	14	10	91	54	54	1
and Remittances }	3	2	-	-	-	-	-	1	1	2	-
No Cash Income											
TOTAL	107	130	30	11	1	29	18	158	94	88	8

TABLE 37

THE NUMBER OF CAPITAL GOODS BY TYPE OF ITEMS AND SOURCE OF INCOME OF INDIGENOUS HOUSEHOLDS BY ISLAND

Islands By Source of Income	Total Households	Radio	Guitar and Ukulele	Camera	Motorcycle	Bicycle	Power Boat	Canoe	Fishing Net	Sewing Machine	Frig. or Freezer
FI NAUFUTI											
Wages only	155	212	41	64	56	34	42	74	84	128	61
Business only	2	2	1	1	1	2	2	1	1	1	1
Pension only	2	2	1	1	1	2	1	1	1	1	1
Produce only	3	5	1	1	1	1	3	2	1	3	1
Remittance only	7	4	2	1	1	1	2	3	3	3	1
Wages and other	104	214	35	61	71	53	62	67	92	112	67
Business and other	-	-	-	-	-	-	-	-	-	-	-
Not Wages	-	-	-	-	-	-	-	-	-	-	-
Produce, Pension and Remittances }	3	6	-	2	1	4	1	-	3	1	1
No Cash Income	8	7	1	2	2	1	2	2	1	8	2
TOTAL	284	452	81	130	133	96	114	150	185	257	133
NUKULAEIAE											
Wages only	1	-	1	1	-	1	1	1	1	1	-
Business only	-	-	-	-	-	-	-	-	-	-	-
Pension only	-	-	-	-	-	-	-	-	-	-	-
Produce only	3	4	1	-	-	-	-	5	2	2	-
Remittance only	2	1	-	-	-	-	-	-	-	-	-
Wages and other	13	10	9	3	-	8	2	38	23	9	1
Business and other	-	-	-	-	-	-	-	-	-	-	-
Not Wages	-	-	-	-	-	-	-	-	-	-	-
Produce, Pension and Remittances }	31	37	12	2	-	10	2	53	23	23	2
No Cash Income	-	-	-	-	-	-	-	-	-	-	-
TOTAL	50	52	23	6	-	19	5	97	49	36	4
NIULAKITA											
Wages only	2	-	1	-	-	-	-	-	-	1	-
Business only	-	-	-	-	-	-	-	-	-	-	-
Pension only	-	-	-	-	-	-	-	-	-	-	-
Produce only	4	1	-	-	-	-	-	-	2	2	-
Remittance only	-	-	-	-	-	-	-	-	-	-	-
Wages and other	2	-	-	-	-	-	-	-	-	2	-
Business and other	-	-	-	-	-	-	-	-	-	-	-
Not Wages	-	-	-	-	-	-	-	-	-	-	-
Produce, Pension and Remittances }	1	-	-	-	-	-	-	-	-	-	-
No Cash Income	-	-	-	-	-	-	-	-	-	-	-
TOTAL	9	1	-	1	-	-	1	-	2	5	-

TABLE 37
THE NUMBER OF CAPITAL GOODS BY TYPE OF ITEMS AND SOURCE OF INCOME OF INDIGENOUS HOUSEHOLDS BY ISLAND

Islands By Source of Income	Total Households	Radio	Guitar and Ukulele	Camera	Motorcycle	Bicycle	Power Boat	Canoe	Fishing Net	Sewing Machine	Frig. or Freezer
TUVALU											
Wages only	187	246	50	74	68	65	44	100	110	151	66
Business only	2	2	1	-	-	-	2	1	-	1	-
Pension only	4	5	-	2	1	2	-	4	3	2	1
Produce only	161	108	30	5	10	121	17	148	107	142	6
Remittance only	41	30	4	-	1	15	2	26	15	26	6
Wages and other	287	450	95	105	101	236	86	287	286	289	92
Business and other	1	1	1	-	-	1	-	3	1	1	-
Not Wages											
Produce, Pension and Remittances }	373	371	84	28	16	313	30	451	224	348	14
No Cash Income	23	15	1	2	4	4	2	9	6	24	2
TOTAL	1079	1228	266	216	201	757	183	1029	752	984	187

TABLE 38

THE NUMBER OF MODERN TYPES OF SERVICES IN INDIGENOUS HOUSEHOLDS
LIVING IN THEIR OWN HOUSES BY THE SOURCE OF CASH INCOME

Island by Source of Income	Total Households	SANITATION			WATER		COOKING			LIGHTING				
		Kitchen	European Bathroom	Flush Septic Tank	Rain Storage	Tanker Delivered	Cistern	Primus Stove	Oil Stove	Electricity Stove	Gas Stove	Hurricane Lamp	Pressure Lamp	Electricity
NANUMEA														
Wages only	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Business only	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pension only	36	-	-	2	12	1	-	15	7	-	36	-	14	-
Produce only	4	-	-	1	2	-	-	1	-	-	4	-	1	-
Wages and other	29	-	-	1	11	1	1	16	12	-	29	-	23	-
Business and other	1	-	-	-	1	-	-	1	1	-	1	-	1	-
Not Wages	60	-	-	-	21	1	-	22	14	-	56	-	19	-
Produce, Pension and Remittances }	2	-	-	-	-	-	-	1	1	-	2	-	-	-
No Cash Income		-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	132	-	-	3	47	3	2	56	35	-	128	58	-	-
NANUMAGA														
Wages only	1	-	-	1	-	1	-	1	1	-	1	1	-	-
Business only	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pension only	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Produce only	27	-	-	22	12	-	-	16	4	-	27	-	22	-
Wages and other	12	-	-	11	5	-	-	8	3	-	11	-	11	-
Business and other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Not Wages	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Produce, Pension and Remittances }	57	-	-	50	16	-	-	36	21	-	57	-	42	-
No Cash Income	1	-	-	1	1	-	-	-	-	-	1	-	-	-
TOTAL	98	-	-	85	34	-	-	61	29	-	97	76	-	-
NIUTAO														
Wages only	-	-	-	1	-	1	-	-	-	-	-	-	-	-
Business only	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pension only	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Produce only	31	-	-	1	-	-	-	2	1	-	29	-	18	-
Wages and other	6	-	-	-	-	-	-	2	3	-	6	-	2	-
Business and other	18	-	-	-	-	-	-	5	4	-	16	-	14	-
Not Wages	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Produce, Pension and Remittances }	66	-	-	2	-	-	1	10	9	-	62	-	36	-
No Cash Income	3	-	-	-	-	-	-	-	-	-	3	-	-	-
TOTAL	124	-	-	3	-	-	1	19	17	-	116	70	-	-

TABLE 38

THE NUMBER OF MODERN TYPES OF SERVICES IN INDIGENOUS HOUSEHOLDS
LIVING IN THEIR OWN HOUSES BY THE SOURCE OF CASH INCOME

Island by Source of Income	Total Households	SANITATION			WATER		COOKING			LIGHTING			
		European Kitchen	Flush Septic Tank	Water Seal	Rain Storage	Tanker Delivered	Cistern	Primus Stove	Oil Stove	Electricity Stove	Hurricane Lamp	Pressure Lamp	Electricity
NUI													
Wages only	-	-	-	-	-	-	-	-	-	-	-	-	-
Business only	-	-	-	-	-	-	-	-	-	-	-	-	-
Pension only	13	-	-	1	-	-	-	5	1	-	-	10	7
Produce only	6	-	-	10	-	-	-	6	2	-	-	3	3
Remittance only	12	-	-	-	-	-	1	-	4	-	-	10	10
Wages and other	-	-	-	-	-	-	-	-	-	-	-	-	-
Business and other	-	-	-	-	-	-	-	-	-	-	-	-	-
Not Wages	-	-	-	-	-	-	-	-	-	-	-	-	-
Produce, Pension	47	-	-	1	-	-	-	21	9	-	-	38	40
and Remittances	1	-	-	1	-	-	-	1	-	-	-	1	-
No Cash Income	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	79	-	-	14	-	-	1	33	16	-	-	62	60
VAITUPU													
Wages only	13	2	2	-	2	-	4	3	5	-	-	11	10
Business only	1	-	-	-	-	-	-	-	-	-	-	1	-
Pension only	23	-	-	2	-	-	-	13	8	-	-	23	18
Produce only	3	-	-	-	-	-	-	1	1	-	-	3	1
Remittance only	56	8	6	11	8	-	1	25	34	-	-	49	52
Wages and other	-	-	-	-	-	-	-	-	-	-	-	-	-
Business and other	-	-	-	-	-	-	-	-	-	-	-	-	-
Not Wages	-	-	-	-	-	-	-	-	-	-	-	-	-
Produce, Pension	44	2	2	6	1	-	-	16	14	-	-	44	34
and Remittances	1	-	-	-	-	-	-	-	-	-	-	1	1
No Cash Income	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	141	12	10	4	19	16	5	58	62	-	-	132	117
NUKUFETAU													
Wages only	-	-	-	-	-	-	-	-	-	-	-	-	-
Business only	-	-	-	-	-	-	-	-	-	-	-	-	-
Pension only	1	-	-	-	-	-	-	-	-	-	-	-	-
Produce only	15	-	-	6	1	-	-	-	8	-	-	12	7
Remittance only	10	-	-	4	-	-	-	3	2	-	-	9	3
Wages and other	14	-	-	8	1	-	-	4	9	-	-	12	11
Business and other	-	-	-	-	-	-	-	-	-	-	-	-	-
Not Wages	-	-	-	-	-	-	-	-	-	-	-	-	-
Produce, Pension	59	-	-	16	1	-	-	7	33	-	-	51	32
and Remittances	3	-	-	2	-	-	-	1	1	-	-	1	1
No Cash Income	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	102	-	-	36	3	-	-	15	53	-	-	86	54

TABLE 38
THE NUMBER OF MODERN TYPES OF SERVICES IN INDIGENOUS HOUSEHOLDS
LIVING IN THEIR OWN HOUSES BY THE SOURCE OF CASH INCOME

Island by Source of Income	Total Households	SANITATION			WATER		COOKING			LIGHTING				
		Kitchen	European Bathroom	Flush Septic Tank	Rain Storage	Tanker Delivered	Cistern	Primus Stove	Oil Stove	Electricity Stove	Gas Stove	Hurricane Lamp	Pressure Lamp	Electricity
FUNAFUTI														
Wages only	73	9	8	9	46	20	9	21	40	1	1	51	56	4
Business only	2	1	1	1	2	1	1	1	1	1	1	2	2	1
Pension only	1	1	1	1	2	1	1	1	1	1	1	1	1	1
Produce only	2	1	1	1	4	1	1	1	1	1	1	2	1	1
Remittance only	5	1	1	1	4	1	1	1	2	1	1	5	1	1
Wages and other	67	12	14	17	40	14	13	14	44	1	1	39	46	18
Business and other														
Not Wages	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Produce, Pension and Remittances }	1	1	1	1	1	1	1	1	1	1	1	1	1	1
No Cash Income	7	1	1	1	5	1	1	4	2	1	1	7	3	1
TOTAL	158	22	23	27	100	35	23	40	91	1	2	108	111	23
NUKUNAE														
Wages only	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Business only	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Pension only	2	1	1	1	1	1	1	1	1	1	1	2	2	1
Produce only	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Remittance only	11	1	1	1	2	1	1	1	6	1	1	11	10	1
Wages and other														
Business and other	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Not Wages	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Produce, Pension and Remittances }	29	1	1	1	1	1	1	10	10	1	1	29	28	1
No Cash Income	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	44	1	1	1	3	1	1	17	17	1	1	44	42	1
TUVALU														
Wages only	87	11	10	11	48	20	13	25	46	1	1	63	67	5
Business only	2	1	1	1	2	1	1	1	1	1	1	2	2	1
Pension only	4	1	1	1	32	1	1	1	2	1	1	4	3	1
Produce only	149	1	1	2	36	1	1	51	30	1	1	141	89	1
Remittance only	35	1	1	1	6	1	1	8	10	1	1	31	12	1
Wages and other	219	20	20	20	67	14	16	83	116	1	1	177	177	21
Business and other														
Not Wages	1	-	-	-	1	-	-	1	1	-	-	1	1	-
Produce, Pension and Remittances }	363	2	3	1	41	-	2	122	110	-	-	338	232	-
No Cash Income	18	-	-	-	6	-	-	7	4	-	-	16	5	1
TOTAL	878	35	33	34	203	35	32	299	320	1	2	773	588	27

TABLE 39
THE HOUSEHOLDS LISTED BY THE NUMBER OF PERSONS IN EACH HOUSEHOLD, SHOWING THE NUMBER OF FAMILY UNITS AND TOTAL PERSONS

ISLAND OF ENUMERATION	NUMBER OF PRIVATE HOUSEHOLDS WITH FAMILY UNITS NUMBERING								COLLECTIVE HOUSEHOLDS	ALL HOUSEHOLDS
	ONE HOUSE HOLDS	PER- SONS	TWO HOUSE HOLDS	PER- SONS	THREE HOUSE HOLDS	PER- SONS	FOUR HOUSE HOLDS	PER- SONS		
NANUMEA	58	194	48	303	27	266	7	81	-	140 844
NANUMAGA	46	228	44	271	9	66	4	40	-	103 605
NIUTAO	47	225	44	300	32	269	8	72	-	131 866
NUI	31	122	33	256	18	166	5	59	-	87 603
VAITUPU	77 ^(a)	306	58	350	29	241	11	113	8 ^(e) 263	183 1273
NUKUFETAU	53	236	45	321	6	53	3	16	-	107 626
FUNAFUTI	188 ^(b)	984	85 ^(c)	686	19	232	9	141	5 ^(d) 77	306 2120
NUKULAEAE	22	115	19	147	7	54	2	31	-	50 347
NIULAKITA	5	33	3	21	1	11	-	-	-	9 65
TOTAL	527	2443	379	2655	148	1358	49	553	13 340	1116 7349

(a) includes 7 households of 17 non-indigenous persons

(b) includes 15 households of 37 non-indigenous persons

(c) includes 2 households of 6 non-indigenous persons

(d) includes 11 non-indigenous enumerated in the hotel

The remaining 7 non-indigenous persons were living in indigenous households

(1 on Nanumaga, 2 on Nui, 4 on Funafuti)

(e) all dormitories of Motufoua School

TABLE 40

THE NUMBER OF INDIGENOUS HOUSEHOLDS LIVING IN HOUSES OF TRADITIONAL AND OTHER NON-TRADITIONAL CONSTRUCTION BY THE NUMBER OF PERSONS IN THE HOUSEHOLDS AND THE AREA OF LIVING/SLEEPING FLOOR-SPACE AVAILABLE TO EACH ADULT

Persons In Households	Area Per Adult in Square Feet										Total Households	Total Persons	
	Under 15		15-24		25-39		40-59		60-99				100+
	Trad	Other	Trad	Other	Trad	Other	Trad	Other	Trad	Other	Trad	Other	
<u>NANUMEA</u>													
1	-	-	-	-	-	-	-	-	-	-	9	1	
2	-	-	-	-	-	-	-	-	-	-	9	1	
3	-	-	-	-	-	-	-	-	-	-	15	1	
4	-	-	-	-	-	-	-	-	-	-	13	1	
5	-	-	-	-	-	-	-	-	-	-	5	1	
6	-	-	-	-	-	-	2	9	1	1	4	1	
7	-	-	-	-	-	-	4	7	-	-	3	1	
8	-	-	-	-	-	-	1	1	-	-	-	1	
9	-	-	-	-	-	-	9	6	-	-	-	1	
10-11	-	-	-	-	-	-	6	-	-	-	1	1	
12-15	-	-	-	-	-	-	-	-	-	-	-	-	
16+	-	-	-	-	-	-	-	-	-	-	-	-	
HOUSEHOLDS	-	-	-	-	2	1	24	1	47	1	59	5	
PERSONS	-	-	-	-	17	15	242	8	320	6	209	27	
<u>NANUMAGA</u>													
1	-	-	-	-	-	-	-	-	-	-	2	-	
2	-	-	-	-	-	-	-	-	-	-	5	-	
3	-	-	-	-	-	-	-	-	-	-	7	-	
4	-	-	-	-	-	-	-	-	-	-	16	1	
5	-	-	-	-	-	-	-	-	3	-	12	1	
6	-	-	-	-	-	-	-	-	12	1	8	1	
7	-	-	-	-	-	-	2	-	14	1	2	1	
8	-	-	-	-	-	-	4	-	8	-	-	1	
9	-	-	-	-	-	-	4	1	6	-	-	1	
10-11	-	-	-	-	1	-	2	-	4	-	-	1	
12-15	-	-	-	-	1	-	2	-	-	-	-	1	
16+	-	-	-	-	-	-	2	-	-	-	-	1	
HOUSEHOLDS	-	-	-	-	2	-	14	1	47	1	36	2	
PERSONS	-	-	-	-	24	-	126	9	296	6	133	10	
604													

TABLE 40

THE NUMBER OF INDIGENOUS HOUSEHOLDS LIVING IN HOUSES OF TRADITIONAL AND OTHER NON-TRADITIONAL CONSTRUCTION BY THE NUMBER OF PERSONS IN THE HOUSEHOLDS AND THE AREA OF LIVING/SLEEPING FLOOR-SPACE AVAILABLE TO EACH ADULT

1977-78
 1978-79
 1979-80
 1980-81
 1981-82
 1982-83
 1983-84
 1984-85
 1985-86
 1986-87
 1987-88
 1988-89
 1989-90
 1990-91
 1991-92
 1992-93
 1993-94
 1994-95
 1995-96
 1996-97
 1997-98
 1998-99
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TABLE 40

THE NUMBER OF INDIGENOUS HOUSEHOLDS LIVING IN HOUSES OF TRADITIONAL AND OTHER NON-TRADITIONAL CONSTRUCTION BY THE NUMBER OF PERSONS IN THE HOUSEHOLDS AND THE AREA OF LIVING/SLEEPING FLOOR-SPACE AVAILABLE TO EACH ADULT

Persons In Households	Area Per Adult in Square Feet						100+ Trad Other		Total Households	Total Persons
	Under 15	15-24	25-39	40-59	60-99	100+				
	Trad	Other	Trad	Other	Trad	Other	Trad	Other		
VAITUPU										
1	-	-	-	-	-	-	4	-	4	4
2	-	-	-	-	-	-	4	-	11	22
3	-	-	-	-	-	-	10	-	21	63
4	-	-	-	-	-	-	9	-	22	88
5	-	-	-	-	-	-	8	-	29	145
6	-	-	-	-	-	-	14	-	18	108
7	-	-	-	-	-	-	9	-	18	126
8	-	-	-	-	-	-	5	-	15	120
9	-	-	-	-	-	-	2	-	11	99
10-11	-	-	-	-	-	-	-	-	12	126
12-15	-	-	-	-	-	-	-	-	7	92
16+	-	-	-	-	-	-	-	-	-	-
HOUSEHOLDS	-	1	-	12	3	30	56	48	168	
PERSONS	-	9	-	108	21	194	265	243		993
NUKUPETAU										
1	-	-	-	-	-	-	5	-	5	5
2	-	-	-	-	-	-	4	-	4	8
3	-	-	-	-	-	-	9	-	10	30
4	-	-	-	-	-	-	13	-	13	52
5	-	-	-	-	-	-	17	-	20	100
6	-	-	-	-	-	-	11	-	13	78
7	-	-	-	-	-	-	6	-	10	70
8	-	-	-	-	-	-	-	-	18	144
9	-	-	-	-	-	-	-	-	7	63
10-11	-	-	-	-	-	-	-	-	4	40
12-15	-	-	-	-	-	-	-	-	3	36
16+	-	-	-	-	-	-	-	-	-	-
HOUSEHOLDS	-	-	-	2	-	34	65	4	107	
PERSONS	-	-	-	15	-	284	285	26		626

TABLE 40

THE NUMBER OF INDIGENOUS HOUSEHOLDS LIVING IN HOUSES OF TRADITIONAL AND OTHER NON-TRADITIONAL CONSTRUCTION BY THE NUMBER OF PERSONS IN THE HOUSEHOLDS AND THE AREA OF LIVING/SLEEPING FLOOR-SPACE AVAILABLE TO EACH ADULT

Persons In Households	Area Per Adult in Square Feet										Total Households	Total Persons		
	Under 15		15-24		25-39		40-59		60-99				100+	
	Trad	Other	Trad	Other	Trad	Other	Trad	Other	Trad	Other			Trad	Other
<u>FUNAFUTI</u>														
1	-	-	-	-	-	-	-	-	2	-	-	9		
2	-	-	-	-	-	-	-	-	-	1	2	10		
3	-	-	-	-	-	-	1	-	-	1	1	15		
4	-	-	-	-	-	-	2	-	1	6	1	22		
5	-	-	-	-	-	1	-	1	1	14	-	19		
6	-	-	-	-	-	-	1	1	-	12	-	20		
7	-	-	-	-	-	1	-	2	-	11	-	12		
8	-	-	-	-	-	-	-	5	-	8	-	15		
9	-	-	-	-	-	-	-	4	-	8	-	6		
10-11	-	-	-	-	-	-	1	5	-	12	-	18		
12-15	1	-	-	-	-	4	1	10	-	7	-	28		
16+	-	-	-	-	-	7	1	1	-	3	-	26		
	-	-	-	-	-	1	-	-	-	-	8	2		
HOUSEHOLDS	1	-	1	1	2	14	5	31	6	82	4	137		
PERSONS	10	-	8	8	13	165	39	313	28	661	9	742		
<u>NUKUNAE</u>														
1	-	-	-	-	-	-	-	-	-	-	-	1		
2	-	-	-	-	-	-	-	-	-	-	-	-		
3	-	-	-	-	-	-	-	-	-	-	-	15		
4	-	-	-	-	-	-	-	-	-	-	-	20		
5	-	-	-	-	-	-	-	-	-	-	-	20		
6	-	-	-	-	-	-	-	-	-	-	-	30		
7	-	-	-	-	-	-	-	-	-	-	-	56		
8	-	-	-	-	-	-	-	-	-	-	-	88		
9	-	-	-	-	-	-	-	-	-	-	-	45		
10-11	-	-	-	-	-	-	-	-	-	-	-	30		
12-15	-	-	-	-	-	-	-	-	-	-	-	42		
16+	-	-	-	-	-	-	-	-	-	-	-	-		
HOUSEHOLDS	-	-	1	-	2	-	6	-	15	4	14	8		
PERSONS	-	-	9	-	16	-	60	-	122	29	69	42		
												347		

TABLE 40

THE NUMBER OF INDIGENOUS HOUSEHOLDS LIVING IN HOUSES OF TRADITIONAL AND OTHER NON-TRADITIONAL CONSTRUCTION BY THE NUMBER OF PERSONS IN THE HOUSEHOLDS AND THE AREA OF LIVING/SLEEPING FLOOR-SPACE AVAILABLE TO EACH ADULT

Persons In Households	Area Per Adult in Square Feet												Total Households	Total Persons
	Under 15		15-24		25-39		40-59		60-99		100+			
					Trad	Other	Trad	Other	Trad	Other				
	TUVALU													
1	-	-	-	-	-	-	1	-	-	-	25	11	36	36
2	-	-	-	-	-	-	3	-	5	-	31	15	51	102
3	-	-	-	-	-	-	2	-	16	1	62	27	98	294
4	-	-	-	-	1	-	3	3	28	7	69	32	130	520
5	-	-	-	-	5	-	5	1	39	16	57	38	150	750
6	-	-	-	-	2	-	9	1	46	15	24	29	134	804
7	-	-	-	-	1	-	7	3	55	16	10	17	114	798
8	-	-	-	-	3	-	13	6	25	15	2	9	125	1000
9	-	-	-	-	4	-	22	5	25	10	3	2	65	585
10-11	1	-	2	-	4	-	14	8	25	19	1	3	93	968
12-15	-	-	3	-	5	-	11	11	10	9	64	-	64	845
16+	-	-	-	-	1	-	1	1	-	3	1	2	10	175
HOUSEHOLDS	1	-	6	1	21	15	88	39	254	111	323	211	1070	
PERSONS	10	-	63	8	192	180	820	382	1811	900	1390	1,121		6877*

* The total population of 6877 represents the indigenous population who were enumerated in private households (with the exception of Niulakita for which no data for floor-space were available).

TABLE 41.

HOUSES OCCUPIED BY INDIGENOUS PRIVATE HOUSEHOLDS ON EACH ISLAND
BY DESIGN AND MATERIALS* IN CONJUNCTION WITH OCCUPANCY STATUS

ROOFS:- WALLS:- FLOORS:-		T R A D I T I O N A L D E S I G N S					N O N T R A D I T I O N A L D E S I G N S					TOTAL OCCUPIED HOUSES	
		SCREEN - Pola Coral Wood Cement	THATCH MID-RIBS - lafo Coral Wood Cement	METAL Screen or Mid-ribs Coral/Wood Cement	TOTAL TRADITIONAL Thatch Metal	THATCH Hardboard/Cement Coral/Wood Cement	METAL Hardboard/Cement Coral/Wood Cement	NON TRADITIONAL Thatch Metal	TOTAL				
NANUMEA													
Own house and land	21	-	-	-	-	-	67	-	-	3	-	3	70
Own house not land	12	-	1	-	-	-	61	-	-	1	-	1	62
Borrowed	-	-	-	-	-	-	2	-	-	2	-	2	6
Rented	1	-	-	-	-	-	2	-	-	-	-	-	2
TOTAL	34	-	1	-	-	-	132	-	2	6	-	6	140
NANUMAGA													
Own house and land	8	-	-	-	-	-	9	-	-	-	-	2	11
Own house not land	53	-	7	-	-	-	86	1	-	-	-	1	87
Borrowed	-	-	-	-	-	-	2	-	-	-	-	-	2
Rented	1	-	-	-	-	-	2	-	-	-	-	1	3
TOTAL	62	-	7	-	-	-	99	1	-	1	-	3	103
NIUTAO													
Own house and land	86	3	-	-	-	-	92	1	-	-	-	1	93
Own house not land	26	1	1	-	-	-	31	-	-	-	-	-	31
Borrowed	-	-	-	-	-	-	3	-	-	-	-	-	3
Rented	-	-	-	-	-	-	4	-	-	-	-	-	4
TOTAL	113	4	1	-	-	-	130	1	-	-	-	1	131
NUI													
Own house and land	11	-	-	-	-	-	25	-	-	1	-	1	28
Own house not land	14	-	-	-	-	-	42	2	6	-	-	9	51
Borrowed	-	-	-	-	-	-	-	-	-	-	-	-	1
Rented	2	-	-	-	-	-	3	-	2	-	-	2	7
TOTAL	27	-	-	-	-	-	70	-	10	1	-	14	87
VAITUPU													
Own house and land	29	2	-	1	-	-	50	1	6	11	6	17	74
Own house not land	4	2	-	-	-	-	43	-	1	1	2	4	67
Borrowed	1	-	-	1	1	-	4	2	-	5	-	5	20
Rented	-	-	-	-	-	-	4	-	-	1	-	3	7
TOTAL	34	4	-	2	1	-	101	3	18	18	10	35	168

* Houses of 'Traditional Design' are constructed without walls or with walls made from upright rods cut from ribs of coconut palm fronds with gaps between each rib: houses listed as of 'Non-Traditional Design' have solid walls through which air cannot pass freely.

TABLE 41

HOUSES OCCUPIED BY INDIGENOUS PRIVATE HOUSEHOLDS ON EACH ISLAND
BY DESIGN AND MATERIALS* IN CONJUNCTION WITH OCCUPANCY STATUS

ROOFS:- WALLS:- FLOORS:-	T R A D I T I O N A L D E S I G N S				TOTAL TRADITIONAL Thatch Metal	N O N T R A D I T I O N A L D E S I G N S			TOTAL NON TRADITIONAL Thatch Metal	TOTAL OCCUPIED HOUSES
	SCREEN - Pola Coral Wood Cement	THATCH MID-RIBS - Lafo Coral Wood Cement	SCREEN or Mid-ribs Coral/Wood Cement	METAL MID-RIBS - Lafo Coral Wood Cement		THATCH Hardboard/Cement Coral/Wood Cement	METAL Hardboard/Cement Coral/Wood Cement	METAL Thatch		
NUKUFETAU										
Own house and land	7	1	1	-	58	1	1	1	1	60
Own house not land	2	-	1	-	40	-	-	-	1	42
Borrowed	-	-	-	-	-	-	-	-	-	-
Rented	1	-	1	-	3	-	-	1	1	4
TOTAL	10	1	3	-	101	1	2	1	4	107
FUNAFUTI										
Own house and land	1	3	-	3	7	5	71	29	5	115
Own house not land	-	1	1	2	3	-	36	2	100	43
Borrowed	-	-	-	-	2	1	8	14	23	28
Rented	-	-	-	-	-	-	54	44	98	98
TOTAL	1	4	2	7	12	6	169	89	259	284
NUKULAEAE										
Own house and land	3	-	1	-	29	1	3	-	7	39
Own house not land	-	-	-	-	5	-	-	-	-	5
Borrowed	1	-	-	-	2	-	-	1	1	3
Rented	-	-	-	-	2	-	1	-	1	3
TOTAL	4	-	1	-	38	1	4	1	5	50
NIULAKITA										
Own house and land	-	-	-	-	-	-	-	-	-	-
Own house not land	-	-	-	-	-	-	-	-	-	-
Borrowed	6	-	-	-	7	-	-	-	-	7
Rented	-	-	-	-	-	-	2	-	2	2
TOTAL	6	-	-	-	7	-	2	-	2	9
TUVALU										
Own house and land	166	9	2	4	337	16	90	35	22	490
Own house not land	111	4	10	2	311	15	38	4	31	388
Borrowed	9	-	2	3	22	5	15	16	13	71
Rented	5	-	1	-	20	2	59	47	2	130
TOTAL	291	13	15	9	690	38	202	102	68	1079

TABLE 42

SERVICES AVAILABLE TO PRIVATE INDIGENOUS HOUSEHOLDS ON EACH ISLAND IN CONJUNCTION WITH OCCUPANCY STATUS

SERVICES AVAILABLE TO FAMILIES INDICATED BY HOUSEHOLD																	
	SANITATION				DRINKING WATER SUPPLY				COOKING			LIGHTING				TOTAL	
	Flush Water W.C Seal	Reef Latrine	None		Rain Storage	Tanker Delivered	Cistern	Communal Tap	Elec- tricity	Gas Stove	Oil Primus	Fire Wood	Elec- tricity	Hurricane Lamp	Pressure Lamp		Bottle Lamp
NANUMEA																	
Own House	3	3	125	1	47	-	2	131	130	-	35	56	132	128	58	60	132
Borrowed	2	-	4	-	4	-	1	4	6	-	1	2	6	5	5	1	6
Rented	-	-	1	1	1	-	-	1	2	-	1	-	2	2	1	1	2
TOTAL	5	3	130	2	52	-	3	136	138	-	37	58	140	135	64	62	140
NANUMAGA																	
Own House	-	85	-	12	34	-	-	98	-	-	29	61	98	97	76	2	98
Borrowed	-	2	-	-	2	-	1	1	-	-	1	1	2	2	1	-	2
Rented	-	3	-	-	3	-	-	3	-	-	-	2	3	3	2	-	3
TOTAL	-	90	-	12	39	-	1	102	-	-	30	64	103	102	79	2	103
NIUTAO																	
Own House	-	3	-	122	-	-	1	124	122	-	17	19	124	116	70	14	124
Borrowed	-	-	-	3	-	-	1	2	3	-	2	2	3	3	2	-	3
Rented	-	-	-	4	-	-	-	4	4	-	-	2	4	3	3	1	4
TOTAL	-	3	-	129	-	-	2	130	129	-	19	21	131	122	75	15	131
NUI																	
Own House	-	14	33	30	-	-	1	78	76	-	16	33	79	62	60	23	79
Borrowed	-	-	1	-	1	-	-	-	-	-	1	-	1	1	1	-	1
Rented	-	-	7	-	1	-	-	6	3	-	2	4	7	6	7	-	7
TOTAL	-	14	41	30	2	-	1	84	79	-	19	37	87	69	68	23	87
VAITUPU																	
Own House	4	19	1	118	16	-	5	117	106	-	-	58	140	132	117	4	141
Borrowed	-	2	1	18	-	-	2	18	11	-	-	10	20	20	16	-	20
Rented	2	-	-	3	1	-	-	4	5	-	1	5	6	5	6	-	7
TOTAL	6	21	2	139	17	-	7	139	122	-	1	77	166	157	139	4	168

TABLE 42

SERVICES AVAILABLE TO PRIVATE INDIGENOUS HOUSEHOLDS ON EACH ISLAND IN CONJUNCTION WITH OCCUPANCY STATUS

	SANITATION			DRINKING WATER SUPPLY				COOKING			LIGHTING				TOTAL	
	Flush Water W.C Seal	Reef Latrine	None	Rain Storage	Tanker Delivered	Cistern	Communal Tap	Elec- tricity	Gas Stove	Oil Primus	Fire Wood	Elec- tricity	Hurricane Lamp	Pressure Lamp	Bottle Lamp	Occupied Houses
NUKUPETAU																
Own House	-	36	-	67	3	-	103	59	-	53	15	103	86	54	17	102
Borrowed	1	-	-	2	-	1	-	-	-	1	-	-	1	1	-	1
Rented	-	1	-	-	-	-	3	3	-	3	1	-	2	4	1	4
TOTAL	1	37	-	69	3	-	1	106	62	-	57	16	89	59	18	107
FUNAFUTI																
Own House	27	85	-	46	100	35	23	11	-	2	91	40	108	111	6	158
Borrowed	7	11	-	10	13	14	3	2	-	2	15	6	12	18	-	28
Rented	62	15	-	21	79	60	6	3	-	7	84	3	45	50	1	98
TOTAL	96	111	-	77	192	109	32	16	-	4	11	49	73	179	7	284
NUKULAEAE																
Own House	-	14	1	30	3	-	44	-	-	17	17	44	44	42	4	44
Borrowed	1	-	-	1	1	1	1	-	-	1	1	2	1	1	1	3
Rented	-	1	-	2	-	-	3	-	-	2	1	3	3	3	1	3
TOTAL	1	15	1	33	4	-	48	-	-	19	19	49	-	46	6	50
NIULAKITA																
Own House	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Borrowed	-	-	-	7	-	-	7	-	-	2	7	7	10	4	-	7
Rented	-	-	-	2	-	-	-	-	-	2	-	2	2	1	-	2
TOTAL	-	-	-	9	-	-	7	-	-	2	2	9	-	5	-	9
TUVALU																
Own House	34	259	160	426	203	35	32	706	493	1	2	320	27	588	130	878
Borrowed	11	15	6	41	21	14	10	35	20	1	2	31	5	49	2	71
Rented	64	20	8	33	85	60	8	27	17	2	8	99	48	77	5	130
TOTAL	109	294	174	500	309	109	50	768	530	4	12	450	80	714	137	1079