

1. CENSUS RESULTS

1.1 POPULATION STRUCTURE

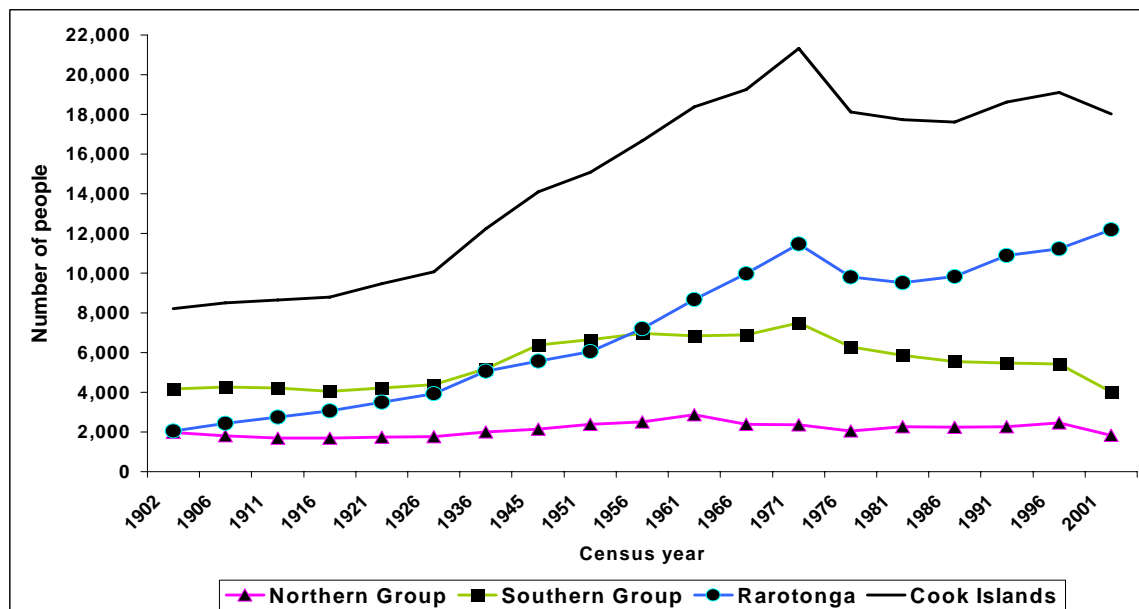
Population size, growth and structure should be taken into account when determining overall development objectives. As population factors are important components of development, and as development is ultimately about people (specifically about improving peoples lives) it is important that population issues should be incorporated into the planning and development process of the nation.

1.1.1 Population trend

The total population of the Cook Islands, as enumerated on 1 December 2001, stood at 18,027 people: 9,300 men and 8,727 women. As the 2001 census was a *de facto* count, this number included all persons present at census night in the Cook Islands; residents and visitors; and excluded residents away from the Cook Islands at the time of the census (even if they intended to be away only for a short time). This population count reflects a decrease of 1,076 people compared to the 1996 Census (19,103).

Figure 1 shows the population of the Cook Islands from 1902 to 2001. It can be seen from this graph that the population has continuously increased from the beginning of the last century reaching 21,322 people in 1971. After that, during the early 70s, the population has declined quite dramatically, especially between 1971 and 1976, as a result of the opening of Rarotonga's International Airport in 1974, when many people took the opportunity to migrate to New Zealand.

Figure 1: Cook Islands total population from 1902 to 2001



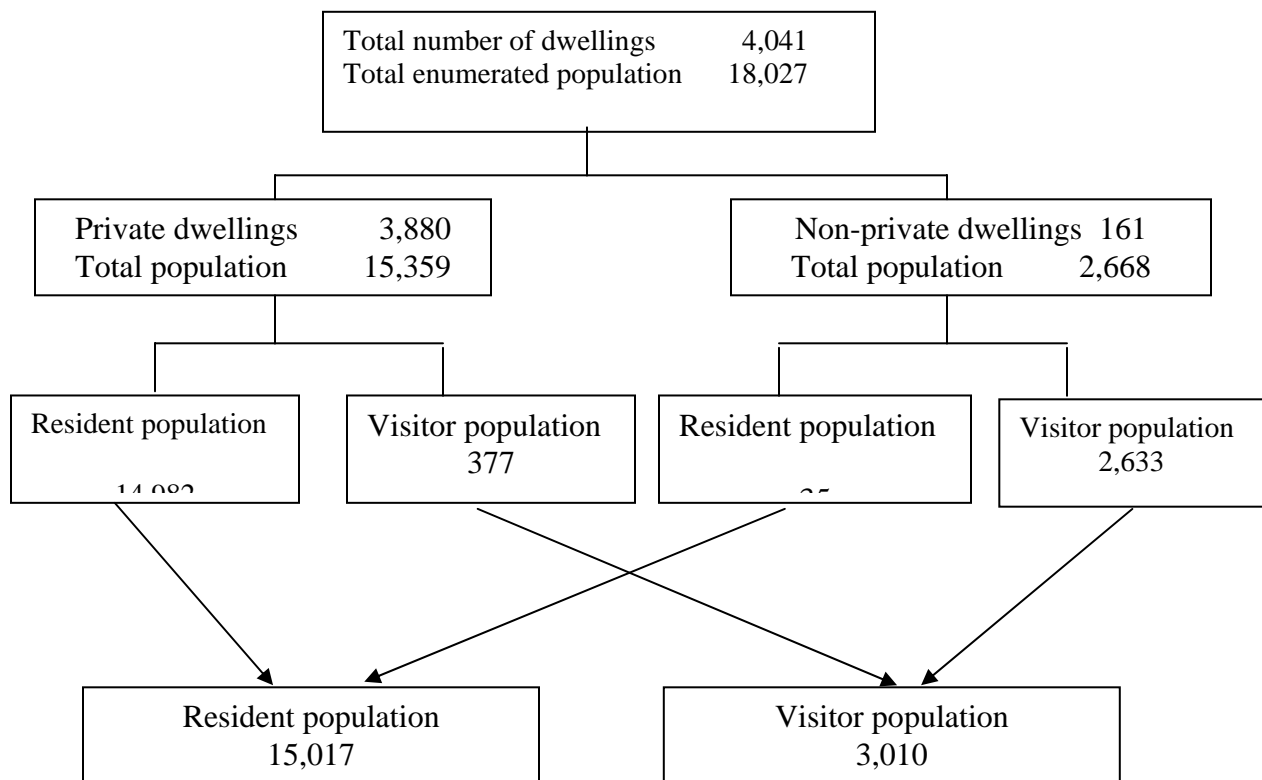
Between 1986 and 1996, the population has slowly recovered and grown by about 150 people per year. However, since 1996 the population decreased again, especially its resident population. Despite the overall trend of a declining Cook Islands population, Rarotonga's total population has steadily grown since the 1980s. The opposite is true for

the Outer Islands; in particular the population of the Southern Group islands has continuously decreased since the 1970s.

1.1.2 Population composition

The total enumerated population of 18,027 people included 15,017 Cook Islands permanent residents and 3,010 visitors (non-residents). In this report the resident population is referred to only 14,990 residents (7,738 males and 7,252 females), who have answered the full census questionnaire. 27 residents (25 males and 2 females), who were imprisoned at the time of the census, were excluded.

Figure 2: Population composition



1.1.3 Population size, change, distribution and density

1.1.3.1 Total population

The total population (including short term visitors, tourists, and temporary contract workers) of the Cook Islands declined by 5.6 per cent (-1,076) during the intercensal period 1996–2001 (Table 1). In accordance with a decreasing population between 1996 and 2001, the population density also decreased, from 81 people per square kilometer in 1996 to 76 people per square kilometer in 2001.

The population density varied widely by island (group). While there were about 511 people per km² in Pukapuka, only 10 people per km² inhabited Mitiaro Island. The population density of Rarotonga was 182 people per square kilometer.

Table 1: Total population size, change, distribution and density by island

Island/ Region	Area (km ²)	Total population			Population change (1996-2001)		Population distribution (%)	Density (persons per km ²)
		1991	1996	2001	Total	%	2001	
Rarotonga	67.1	10,886	11,225	12,188	963	8.6	67.6	182
Southern Group	145.2	5,463	5,424	4013	-1,411	-26.0	22.3	28
Aitutaki	18.3	2,357	2,389	1,946	-443	-18.5	10.8	106
Mangaia	51.8	1,214	1,108	744	-364	-32.9	4.1	14
Atiu	26.9	1,006	956	623	-333	-34.8	3.5	23
Mauke	18.4	639	652	470	-182	-27.9	2.6	26
Mitiaro	22.3	247	319	230	-89	-27.9	1.3	10
Manuae	6.2	0	0	0	0	0.0	0.0	0
Takutea	1.3	0	0	0	0	0.0	0.0	0
Northern Group	24.4	2,259	2,454	1,826	-628	-25.6	10.1	75
Palmerston	2.1	49	49	48	-1	-2.0	0.3	23
Pukapuka	1.3	670	779	664	-115	-14.8	3.7	511
Nassau	1.3	102	99	72	-27	-27.3	0.4	55
Manihiki	5.4	663	668	515	-153	-22.9	2.9	95
Rakahanga	4.1	262	249	169	-80	-32.1	0.9	41
Penrhyn	9.8	503	606	357	-249	-41.1	2.0	36
Suvarrow	0.4	10	4	1	-3	-75.0	0.0	3
Cook Islands	236.7	18,608	19,103	18,027	-1,076	-5.6	100	76

The distribution of the total population varied considerably by region. Sixty-eight per cent (12,188) lived in Rarotonga, 22 per cent (4,013) lived in the Southern Group islands and 10 per cent (1,826) in the Northern Group islands. While the total population of Rarotonga increased by 963 persons, that of the Outer Islands decreased by more than 2,000 people.

1.1.3.2 Resident population

The resident population has decreased quite dramatically since the last census in 1996 when there were 18,071 usual residents living in the Cook Islands (Table 2). This number has decrease by 3,054 and was only 15,017 in 2001, a reduction of 17 per cent or a decrease of 611 people per year. The Rarotonga residents have declined from 10,374 in 1996 to 9,451 in 2001, a reduction of 9 per cent.

Table 2: Resident population, 1996 and 2001

Island and Region	Resident population		Resident population change (1996-2001)		Residents' distribution (%)
	1996	2001	Number	%	2001
Rarotonga	10,374	9,451	-923	-8.9	63.0
Southern Group	5,258	3,777	-1,481	-28.2	25.2
Aitutaki	2,272	1,743	-529	-23.3	11.6
Mangaia	1,083	739	-344	-31.8	4.9
Atiu	942	600	-342	-36.3	4.0
Mauke	643	469	-174	-27.1	3.1
Mitiaro	318	226	-92	-28.9	1.5
Manuae	0	0	0	0.0	0.0
Takutea	0	0	0	0.0	0.0
Northern Group	2,439	1,789	-650	-26.7	11.9
Palmerston	49	48	-1	-2.0	0.3
Pukapuka	778	662	-116	-14.9	4.4
Nassau	99	72	-27	-27.3	0.5
Manihiki	656	497	-159	-24.2	3.3
Rakahanga	249	158	-91	-36.5	1.1
Penrhyn	604	351	-253	-41.9	2.3
Suwarrow	4	1	-3	-75.0	0.0
Cook Islands	18,071	15,017	-3,054	-16.9	100

The resident population of the Outer Islands has declined very dramatically by 27-28 per cent, and lost more than 2,000 people between 1996 and 2001. The relatively largest population decline occurred in Penrhyn (-41.9 per cent), Rakahanga (-36.5 per cent), Atiu (-36.3 per cent) and Mangaia (-31.8 per cent).

Sixty-three per cent of the usual Cook Islands residents lived in Rarotonga, one quarter in the Southern Group islands, and 12 per cent in the Northern Group islands.

1.1.3.3 Visitors

The visitors' population (mainly tourists, but also short term visitors and temporary contract workers) increased significantly between 1996 and 2001 (Table 3). While there were only 1,032 visitors counted during the 1996 census, there were 3,010 in 2001, making one out of six persons (16.7 per cent) in the Cook Islands, a visitor.

The vast majority of the visitors (91 per cent) stayed in Rarotonga, 8 per cent in the Southern Group islands (mainly Aitutaki), and only slightly more than 1 per cent in the Northern Group islands (mainly Manihiki).

Almost a quarter (22.5 per cent) of the total population of Rarotonga were visitors in 2001.

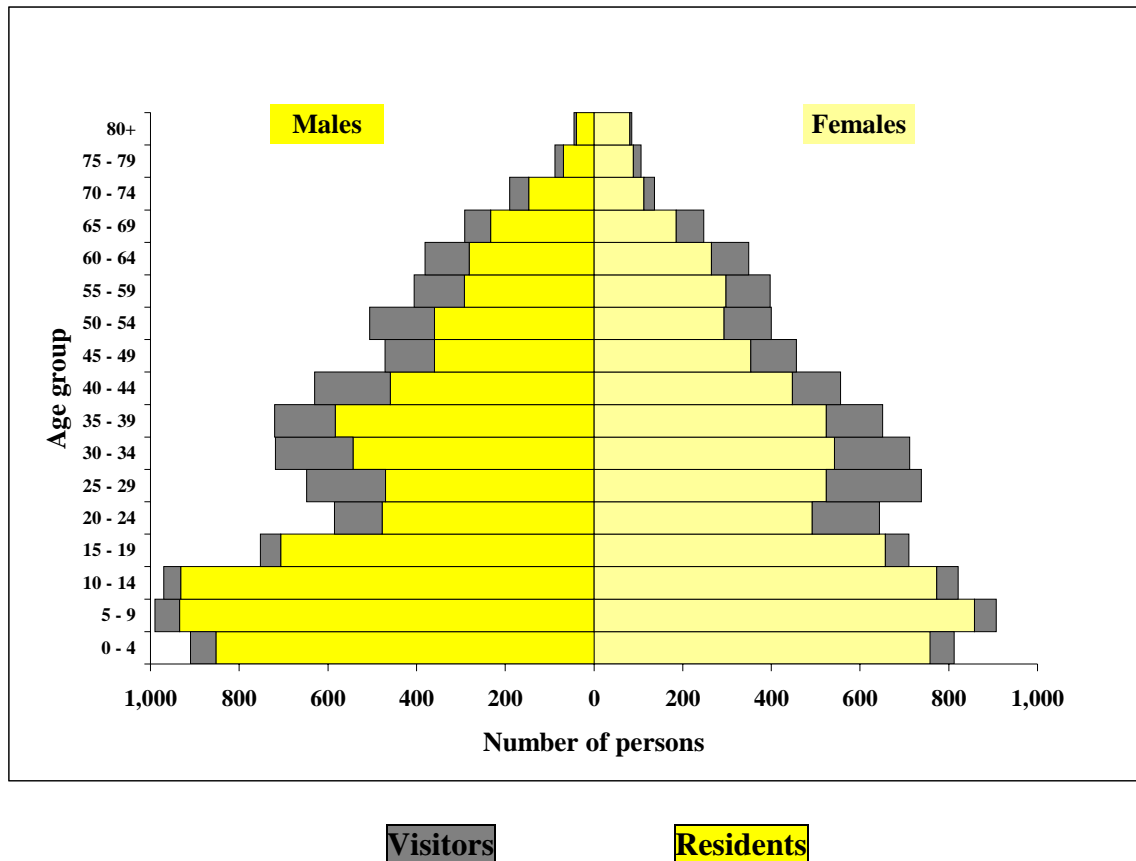
Table 3: Visitors population, 1996 and 2001

Island and Region	Visitors				
	Total numbers		As percent of total population		Distribution
	1996	2001	1996	2001	2001
Rarotonga	851	2,737	7.6	22.5	90.9
Southern Group	166	236	3.1	5.9	7.8
Aitutaki	117	203	4.9	10.4	6.7
Mangaia	25	5	2.3	0.7	0.2
Atiu	14	23	1.5	3.7	0.8
Mauke	9	1	1.4	0.2	0.0
Mitiaro	1	4	0.3	1.7	0.1
Manuae	0	0	0.0	0.0	0.0
Takutea	0	0	0.0	0.0	0.0
Northern Group	15	37	0.6	2.0	1.2
Palmerston	0	0	0.0	0.0	0.0
Pukapuka	1	2	0.1	0.3	0.1
Nassau	0	0	0.0	0.0	0.0
Manihiki	12	18	1.8	3.5	0.6
Rakahanga	0	11	0.0	6.5	0.4
Penrhyn	2	6	0.3	1.7	0.2
Suvarrow	0	0	0.0	0.0	0.0
Cook Islands	1,032	3,010	5.4	16.7	100.0

1.1.4 Population by age and sex

The resident population consisted of 7,763 males and 7,254 females in 2001, a surplus of 486 males, resulting in a sex ratio of 107, which means that there were 107 men for 100 women.

Figure 3: Population pyramid, Total population, 2001



A population pyramid (Figure 3) shows the number of males and females in 5-year age groups, starting with the youngest age group at the bottom, and increasing with age towards the top of the pyramid. The number of males is depicted on the left and the number of females on the right side of the center of the pyramid.

A distinct feature of the Cook Islands population pyramid is the indent of the 15–29 year age groups, meaning that these age groups are much smaller in number than the younger and older age groups - a sign of out-migration of the highly migratory young ages.

The narrowing of the population bar of the 0-4 year olds compared to the 5-9 year olds shows a smaller number of people aged 0-4 relative to the 5-9 year olds and points to a possible fertility decline in recent years (reduction of the number of annual births).

Slightly more than 34 per cent of the resident population was younger than 15 years of age and 10 per cent were older than 60 years (Table 4). The proportion of the population aged 15-59 years remained constant since 1996 at 55.9 per cent. Because the proportion of the young population aged 0-14 has decreased since 1996, and the proportion of the older population (60+) has increased, the median age of Cook Island's resident population has increased from 22.9 years in 1996 to 25.3 years in 2001. This means that half of the resident population was younger and the other half older than 25.3 years.

Table 4: Resident population by broad age groups, median age, dependency and sex ratio, 1991, 1996 and 2001

Age group	Total			Rarotonga	Southern Group	Northern Group
	1991	1996	2001	2001		
0 – 14	35.5	35.9	34.1	31.7	36.9	40.3
15 – 59	57	55.9	55.9	59.1	49.9	51.5
60 +	7.5	8.3	10.0	9.1	13.2	8.2
Median age	21.3	22.9	25.3	26.5	24.5	19.8
Dependency ratio	75	79	79	69	101	94
Sex ratio	108	106	107	105	105	119

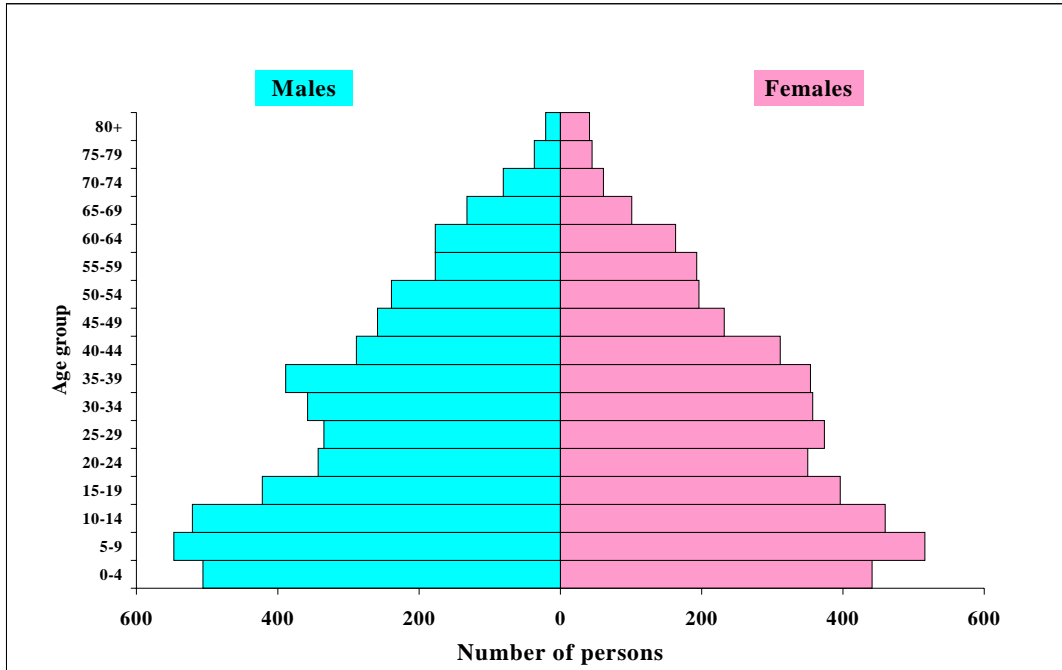
A common way to describe a population's age structure is via the so-called dependency ratio, which describes the proportion of the economically dependent component of a country's population to its productive component. This is conventionally expressed as the ratio of the young (0–14) plus the old (60+), to the population in the working ages (15–59).

The dependency ratio of the resident population of the Cook Islands in 2001 was 79: this means that for every 100 persons in the working ages, there were 79 persons in the dependent ages. The dependency ratio has increased since the 1991 census when it was only 75.4, but it has remained constant since 1996.

The age structure of the Southern and Northern Group islands was distinctively different from Rarotonga. The proportion of children aged 0-14 years was considerably higher, especially in the Northern Group, and the proportion of the working age population (15-59 years) was smaller. As a result the populations of the Outer Islands are younger than in Rarotonga, expressed in their respective median age. The median age of the Northern Group islands was only 19.8 years that is 6.7 years younger than that of Rarotonga's resident population.

The dependency ratios of the Outer Islands were considerably higher than that of Rarotonga.

Figure 4: Population pyramid, Rarotonga resident population



The population pyramids of the Southern and Northern Group islands are characterized by an extreme wide base (the proportion of children aged 0-14), and by extreme narrow bars at ages 20-29 years – the main age groups of emigrants.

There were almost 19 per cent more males than females counted in the Northern Group islands resulting in a much wider left (male) side of the pyramid. The reason for the surplus of males is the number of male laborers working in the pearl farms

Figure 5: Population pyramid, Southern Group islands resident population

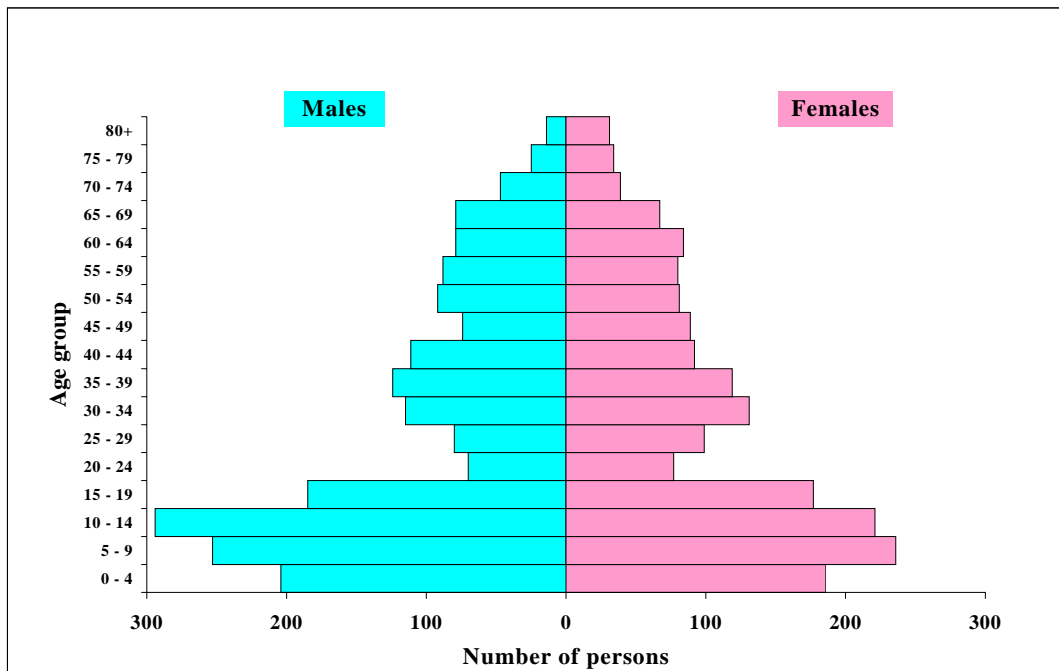
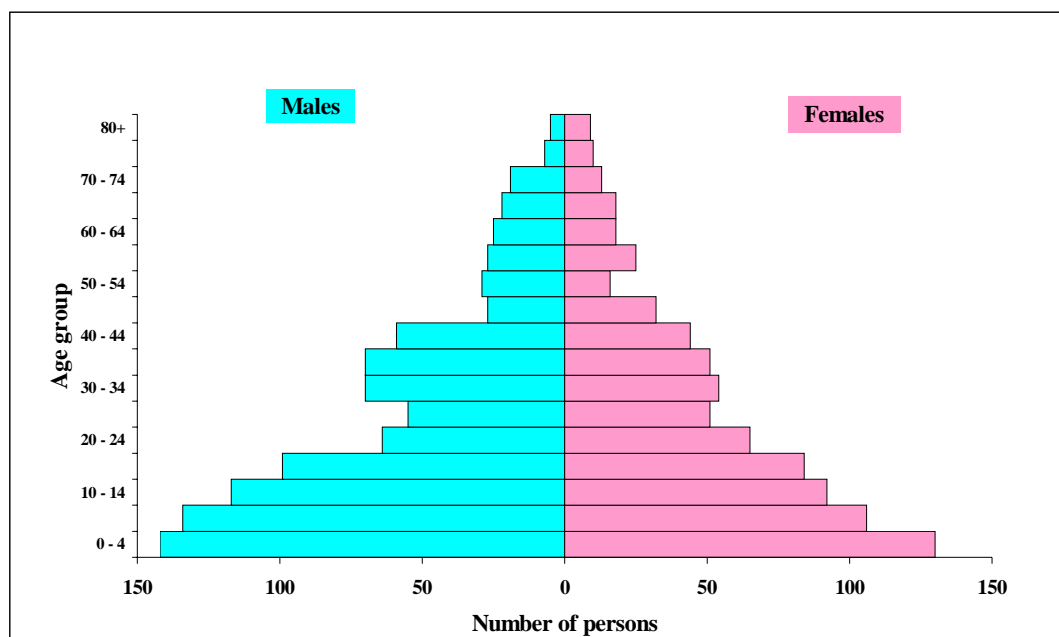


Figure 6: Population pyramid, Northern Group islands resident population



1.2 SOCIAL CHARACTERISTICS

1.2.1 Fertility

In order to determine the level and pattern of fertility in the Cook Islands, all women older than 15 years of age were asked the following questions:

- How many live births they have ever had;
- Their age at birth of their first child; and
- The date of her last birth.

The total number of children ever born to women aged 15 years and older was 14,113. Out of the total of 4,863 women aged 15 years and older, 3,500 (72 per cent) have ever had at least one child, and 28 per cent (1,363) have not had a child (yet). Based on the number of childless women aged 50 years and older, childlessness was about 10 per cent (Table 5).

Table 5: Female resident population 15 years and older by number of children ever born alive

Age of women	Number of women	Number of children ever born											Average Parity	
		0	1	2	3	4	5	6	7	8	9	10+		Total
15 - 19	656	594	55	7	0	0	0	0	0	0	0	0	69	0.1
20 - 24	492	242	153	68	23	6	0	0	0	0	0	0	382	0.8
25 - 29	524	131	120	118	93	39	19	2	2	0	0	0	912	1.7
30 - 34	542	109	77	106	100	63	47	27	12	1	0	0	1,330	2.5
35 - 39	524	65	58	88	100	89	60	27	23	9	4	1	1,631	3.1
40 - 44	447	49	54	65	87	61	59	32	19	12	5	4	1,500	3.4
45 - 49	353	38	16	55	56	67	41	39	20	6	5	10	1,343	3.8
50 - 54	293	20	24	39	41	38	42	33	17	21	4	14	1,267	4.3
55 - 59	298	35	18	23	38	38	27	28	31	17	11	32	1,437	4.8
60 - 64	265	20	13	27	30	19	32	20	34	21	14	35	1,438	5.4
65+	469	60	31	37	24	37	30	34	41	32	34	109	2,804	6.0
Total	4,863	1,363	619	633	592	457	357	242	199	119	77	205	14,113	2.9

Of all women who had children, most had 1-3 children. Four per cent, or 205 women had more than 10 children.

Two women reported to have borne 18 children.

The average number of children ever born to all women (average parity) was 2.9 children per woman. The average parity increases with the age of women. While the 15-19 year old women had on average only 0.1 children (every tenth woman had one child), women aged 45-49 had 3.8 children, and women older than 65 years of age had on average 6 children. The average parities of women older than 49 years is also called the ‘*Completed Fertility Rate*’, a cohort measure demonstrating how many children a certain cohort of women who completed their childbearing actually produced during those years.

1.2.1.1 Age at birth of first and last child

The average age of women at birth of their first child has been calculated at 21.9 years. 1,249 women had their first child when they were still teenagers – younger than 20 years of age, that is 26 per cent of all women 15 years and older. 24 women had their first child when they were younger than 15 years. 13 women had their first child when they were older than 40 years.

The average age of women at birth of their last child has been calculated at 30.7 years.

1.2.1.2 Crude Birth Rate (CBR), General Fertility Rate (GFR), and Child-Woman Ratio

During the 2001 census, the enumerated resident women reported 323 births during the one-year period before the census (December 2000 to November 2001). This compares to 493 during the year before the 1996 census. Assuming that the reported 323 births equal the true number of births during the year before the census, a *Crude Birth Rate (CBR)* of 21 would be the result, which compares to a CBR of almost 30 at the 1996 census.

The *General Fertility Rate (GFR)* is the number of live births per 1000 women aged 15-49 years in a given year. Again assuming that the 323 births equal the true number of

births during the year before the census, the GFR would be 91. The GFR in 1996 was 120.

The *Child-Woman Ratio* is the number of children under five years of age per 1000 women aged 15-49 years. As the resident population younger than five years of age equaled 1,609 persons in 2001, the *Child-Woman Ratio* was 455. This compares to a *Child-Woman Ratio* of 566 in 1996.

1.2.1.3 Age Specific Fertility Rates (ASFR), Total Fertility Rates (TFR), and Mean Age at Childbearing (MAC)

Based on the reported number of births by age of mother born during the year prior to the census the so-called ASFR, TFR and the MAC can be calculated (Table 6).

Although most babies were born to 524 women aged 25-29 years (80), relatively more babies were born to the 492 women aged 20-24 (79). This is expressed in the highest ASFR of 0.161, which means that there were 161 births to 1000 women in that age group. Thirty-one children were born to the 656 women aged 15-19 years, resulting in a teenage fertility rate of 47 (47/1000).

Based on the calculated ASFRs, a TFR of 3.1 has been calculated, and a mean age at childbearing of 28.9 years. The TFR is an indication of the average number of children women would give birth to during her reproductive life (15-49 years of age) if they would be subject to the present fertility level and pattern during their entire reproductive lives. It is calculated from the number of live births by age of women in a given year, the *Age Specific Fertility Rates* (ASFRs).

Table 6: Reported number of children born during 12 months before the census, Age Specific Fertility Rates (ASFR), Total Fertility Rate (TFR), and Mean Age at Childbearing (MAC)

Age of women	Number of women	Number of children born during year prior to the census	Age specific fertility rates (ASFR)
15 - 19	656	31	0.047
20 - 24	492	79	0.161
25 - 29	524	80	0.153
30 - 34	542	66	0.122
35 - 39	524	49	0.094
40 - 44	447	18	0.040
45 - 49	353	0	0.000
Total	3,538	323	0.616
TFR			3.1
MAC			28.9

The presented fertility indicators need to be cited with caution as they are based on information of only one single year (the census year 2001). For a small country such as the Cook Islands, annual indicators can fluctuate widely, and multi-year averages should be taken into account to calculate more robust indicators.

However, the above fertility indicators clearly point to a significant fertility decline of the resident population during the intercensal period 1996-2001. The exact nature of this decline needs to be studied using vital registration data, especially the number of registered births by age of women during the last five years before the census should be considered.

1.2.2 Mortality

The only question that relates to mortality in the 2001 census was the question on the number of children ever born and whether they were still alive (Table 7).

From all children that were ever born to women 15 years and older (14,113), 95 per cent (13,403) were still alive, and 710 children have died. The proportion of surviving females was higher than that of males. While 95.6 per cent of all female children ever born were still alive, only 94.3 per cent of all male children have survived. The proportion of surviving children decreases with the age of women. While all children were still alive that were ever born to women 15-19, only 97.9 per cent of women aged 45-49 were still alive, and only 88.4 per cent of children born to women aged 65 years and older.

In general, the proportion of surviving children decreases continuously by age of mother. This is not the case in the Cook Islands because of the very small data set involved, and therefore would not be sufficient to calculate reliable infant and child mortality indicators. As a consequence, mortality estimates have to rely on Cook Island's vital registration system, which recorded deaths by age and sex. These data can be used to directly calculate a life table from data of deaths by 5-year age groups.

Table 7: Female resident population 15 years and older by number of children ever born, number of children still alive, and number of children dead

Age of women	Number of women	Number of children ever born	Number of children still alive	Number of children dead	Proportion still alive
15 - 19	656	69	69	0	100.0
20 - 24	492	382	379	3	99.2
25 - 29	524	912	899	13	98.6
30 - 34	542	1330	1295	35	97.4
35 - 39	524	1631	1588	43	97.4
40 - 44	447	1500	1468	32	97.9
45 - 49	353	1343	1316	27	98.0
50 - 54	293	1267	1201	66	94.8
55 - 59	298	1437	1361	76	94.7
60 - 64	265	1438	1349	89	93.8
65+	469	2804	2478	326	88.4
Total	4,863	14,113	13,403	710	95.0

Sometimes mortality indicators can be estimated by calculating the proportion of persons by sex and age group, who have survived from one census to the next (cohort survival). In a population as the Cook Islands that is influenced by a significant amount of migration the available methodologies are not suitable, as it would be impossible to establish whether a person has died or migrated.

However, there are three indications that female life expectancy remains higher than males:

- 1) The number of females is higher than males at ages 75 years and older;
- 2) The proportion of widowed females is considerable higher than male widowers;
- 3) The proportion of surviving female children (95.6 per cent) was higher than that of male children (94.3 per cent).

1.2.3 Migration

Based on the question where one lived one year before the census, 92 per cent of the resident population 1 year and older (14,660) answered that they had not moved from their current (December 2001) place of residence; 3 per cent said that they lived elsewhere in the Cook Islands, and 732 persons (5 per cent) of the resident population answered that they had their usual place of residence overseas (Table 8). 6.3 per cent (580) of the Rarotongan residents lived overseas one year before the census.

Table 8: Resident population 1 year and older by usual residence one year ago

Usual residential address at time of census	Usual residential address 1 year ago				
	Rarotonga	Southern Group	Northern Group	Overseas	Total
Rarotonga	8,287	189	154	580	9,210
Southern Group	63	3,567	6	82	3,718
Northern Group	60	8	1,594	70	1,732
Cook Islands	8,410	3,764	1,754	732	14,660

Rarotonga had a net gain from the Southern Group Islands of 126 people, and from the Northern Group islands of 94 people. There was almost no movement between the Southern Group islands (excluding Rarotonga) and the Northern Group islands.

Table 9: Resident population 5 years and older by usual residence five years ago

Usual residential address at time of census	Usual residential address 5 years ago				
	Rarotonga	Southern Group	Northern Group	Overseas	Total
Rarotonga	6,727	476	245	1,029	8,477
Southern Group	99	3,124	5	159	3,387
Northern Group	66	32	1,329	90	1,517
Cook Islands	6,892	3,632	1,579	1,278	13,381

Based on the question where one lived five years before the census, 84 per cent of the total resident population 5 year and older (13,381) answered that they had not moved from their current (December 2001) place of residence; 7 per cent said that they lived elsewhere in the Cook Islands, and 1,278 persons (10 per cent) said that they had their usual place of residence overseas (Table 9). 12 per cent (1,029) of the Rarotongan residents lived overseas five years before the census.

Rarotonga had a net gain from the Southern Group Islands of 377 people, and from the Northern Group islands of 179 people during the five years before the census. The Northern Group islands had a slight net gain from the Southern Group of 27 people.

1.2.4 Place of birth

Sixty-one per cent of the total resident population were living at same place where they were born; 20 per cent were born in the Cook Islands but not at their current (December 2001) place of residence, and almost 19 per cent (2,788) of the resident population was born overseas (Table 10).

Table 10: Resident population by place of birth

Usual residential address at time of census	Place of birth				
	Rarotonga	Southern Group	Northern Group	Overseas	Total
Rarotonga	5,270	1,488	499	2,167	9,424
Southern Group	644	2,666	47	420	3,777
Northern Group	288	57	1,243	201	1,789
Cook Islands	6,202	4,211	1,789	2,788	14,990

Forty-one per cent (6,202) of all Cook Islands residents were born in Rarotonga, 28 per cent in the Southern Group islands (4,211), and 12 per cent (1,789) in the Northern Group islands.

Overall just over half (56 per cent) of the Rarotongan residents were born in Rarotonga, 23 per cent were born overseas, 16 per cent in the Southern Group islands, and 5 per cent in the Northern Group islands.

About 70 per cent of the Southern and Northern Group islands' residents were born there, 11 per cent were born overseas, and 16-17 per cent were born in Rarotonga.

1.2.5 Ethnicity

Cook Islands Maori made up the bulk of the resident population with 87.7 per cent or 13,138 persons (Table 11 and Figure 7). Another 5.8 per (871) cent were Part Cook Islands Maori, and 6.5 per cent or 981 persons were of foreign decent.

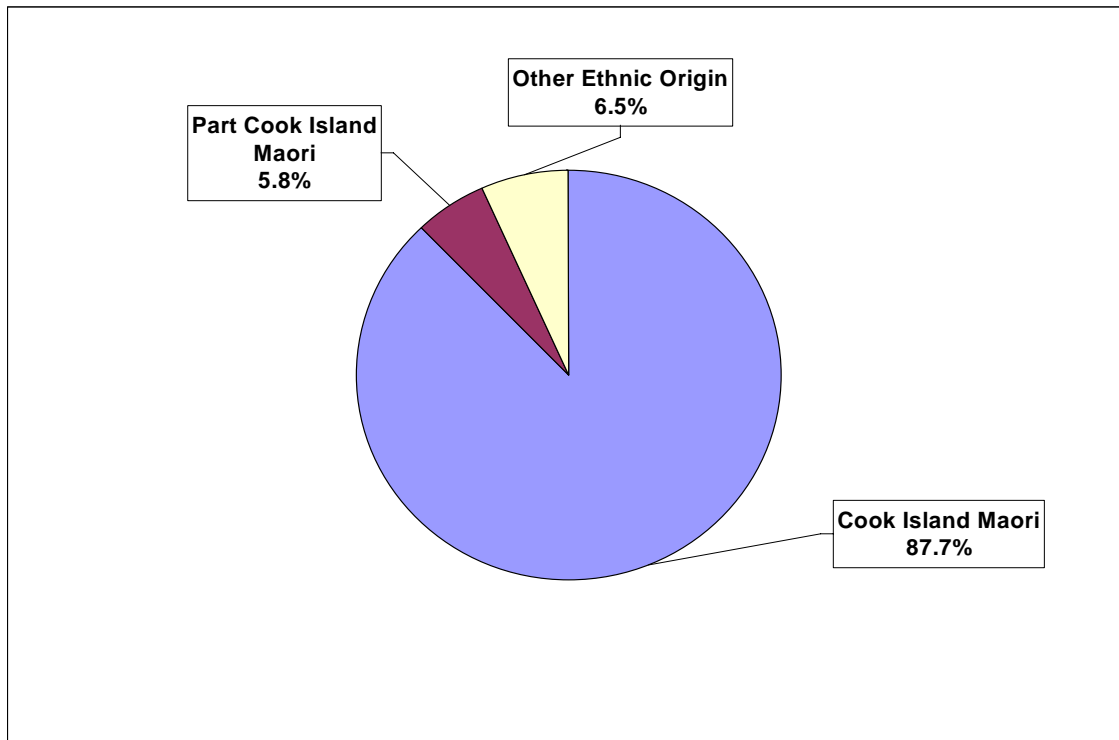
Table 11: Resident population by ethnic origin

Region/Islands	Cook Island Maori			Part Cook Island Maori			Other Ethnic Origin		
	1991	1996	2001	1991	1996	2001	1991	1996	2001
Rarotonga	8,493	8,848	7,886	596	754	676	878	735	862
Southern Group	5,057	5,070	3,550	142	111	143	95	77	84
Northern Group	2,138	2,366	1,702	94	55	52	25	18	35
COOK ISLANDS	15,688	16,284	13,138	832	920	871	998	830	981

As expected with the commercial center being on Rarotonga, most of the Non-Cook Island Maori residents (862) were locate on this island. While this group has increased in

number since 1996, it decreased slightly since 1991. The proportion of Cook Islands Maori and Part Cook Islands Maori was 98 per cent in the outer islands.

Figure 7: Resident population by ethnic origin

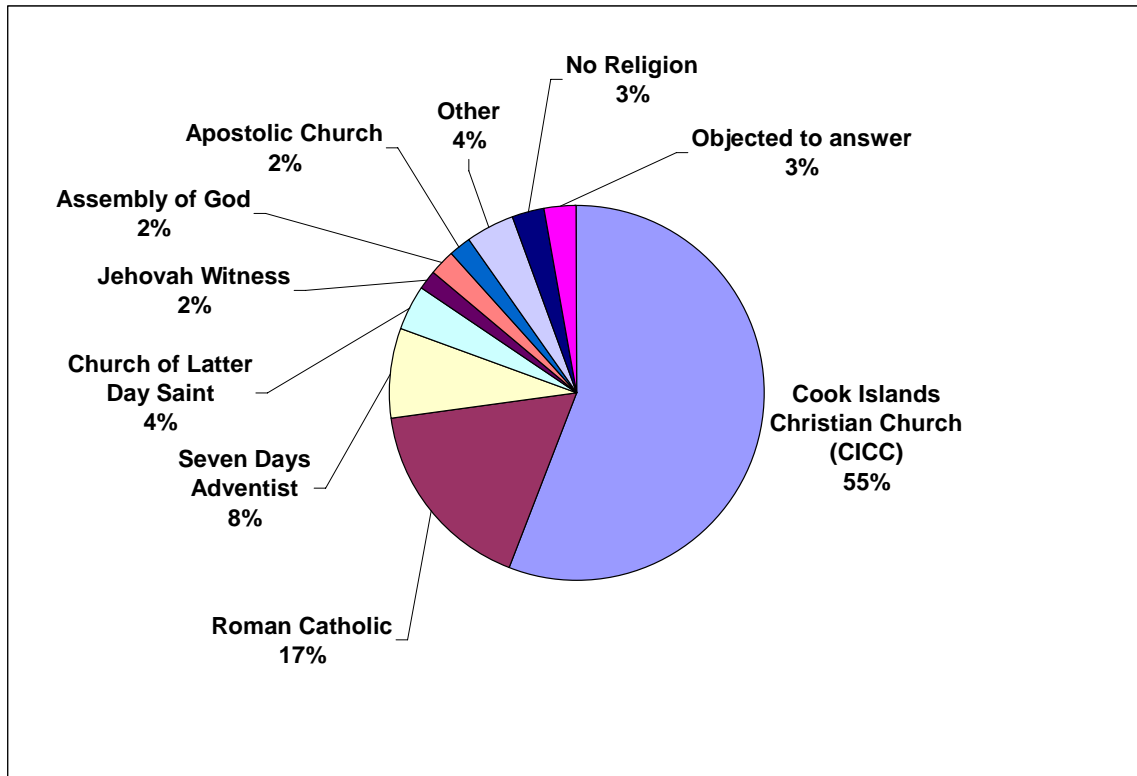


1.2.6 Religious denomination

The question on religion was not compulsory. Nevertheless, only 2.6 per cent or 397 people refused to respond to this question.

In accordance with the general population decline since 1996, the number of persons associated with the different religious denominations has declined too (Figure 8). With 55 per cent or 8,384 persons affiliated to the Cook Islands Christian Church (CICC), it remains the dominant religious denomination of the resident population of the Cook Islands; however, its share has declined from 58 per cent in 1996. The next largest group was the Roman Catholic Church with 2,519 members, 17 per cent of all denominations, followed by the Seventh Day Adventist Church (SDA) with 1,178 members or 8 per cent. All other denominations had less than 5 per cent of the resident population as members. Persons with no religion comprised of 3 per cent of all residents.

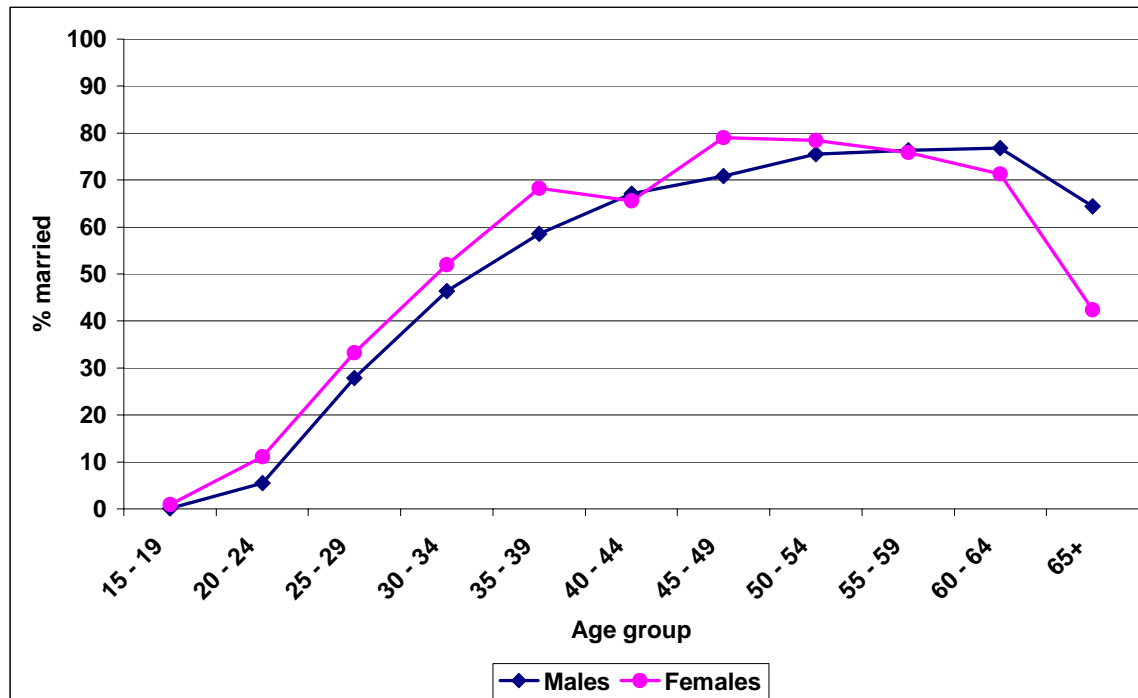
Figure 8: Resident population by religious denomination



1.2.7 Marital status

During the 2001 census, 47 per cent of the resident males (2,340) and females (2,291) 15 years and older were married. Forty-six per cent of males (2,298) and 42 per cent of females (2,024) were never married. Widowed were 3.1 and 7.5 per cent of males (157) and females (365) respectively. Nearly 21 per cent of males 65 and older were widowed compared to half of all females. About 4 per cent of males and females were separated or divorced.

Figure 9: Resident population 15 years and older by sex and proportion married



Women marry at younger ages than men. The average age at marriage was 32 and 31 years for males and females respectively (calculated based on the proportion never married by age). This is a slight increase from 31.2 years of males and 29.6 years for females in 1996.

The higher proportion of young married women compared to men of the same age is a further indication that women generally marry at younger ages than men (Figure 9). While only 5.5 per cent of males were married at age 20-24 years, it was 11.2 per cent of females. While only 28 per cent of males were married at age 25-29 years, it was 33 per cent of females. The proportion of never married males at 46 per cent was higher than never married females (42 per cent).

1.2.8 Disability

During the census enumeration, 351 people reported to have a disability. That was slightly more than 2 per cent of the resident population. The majority of these disabilities were visual and hearing defects, physical disabilities, and general ailments caused by old age. About 18 per cent of all disabilities were mental disabilities.

1.3 EDUCATIONAL CHARACTERISTICS

1.3.1 School enrolment

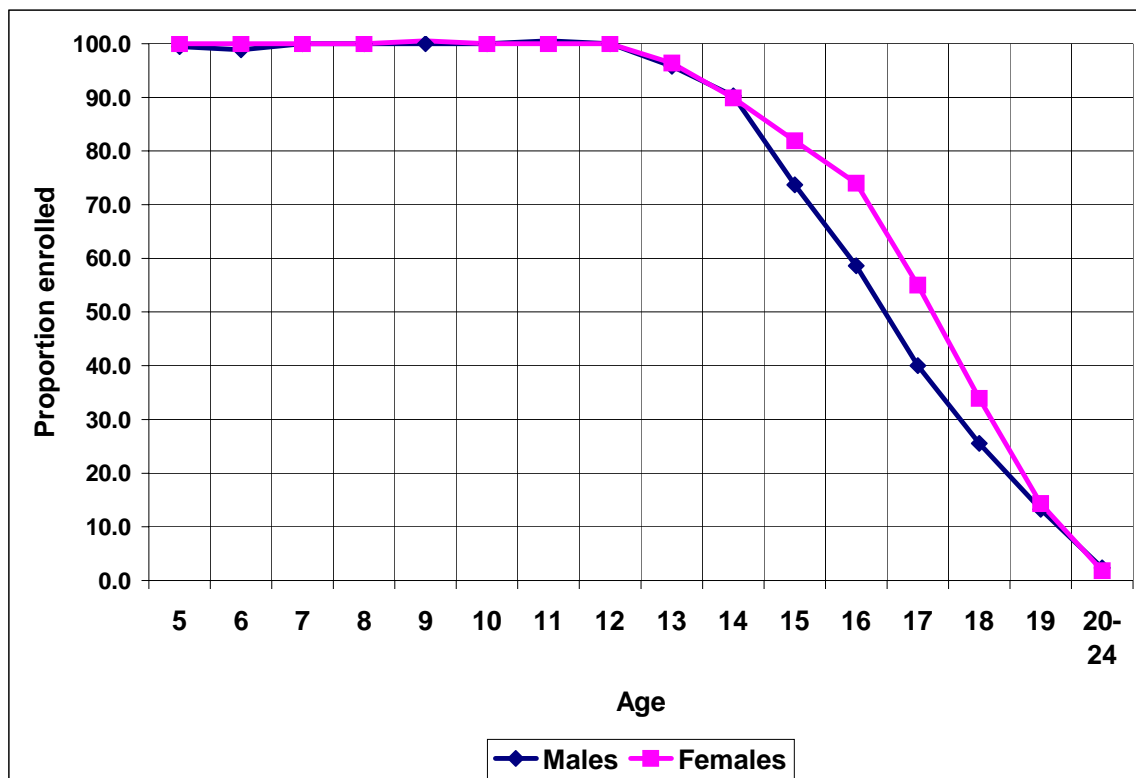
Education in the Cook Islands is free and compulsory from age 5 to 15 years. This has ensured access to primary (grades 1-6) and secondary (forms 1-7) level of education for all.

At the 2001 census, 4,134 persons 5 years and older were enrolled in school, 2,159 males and 1,975 females.

The vast majority (88 per cent) of all pupils were enrolled in public schools, while only 12 per cent went to private schools. This percentage was much higher in Mauke, where more than a quarter (27 per cent) of all pupils were enrolled in a private school. In Rarotonga 17 percent of all pupils went to private schools.

Based on the question of whether a person was currently attending school, nearly all (99.9 per cent) of the 5-12 year olds responded yes (Figure 10). From that age onward, enrollment rates declined.

Figure 10: Resident population aged 5-24 years by sex and attending school



The proportion of the 13 and 14 year olds attending school were, 96 and 90 per cent respectively. While the enrollment rates declined further after the age of 14, when more

and more students dropped out of school, the proportion of enrolled males decreased faster than that of females. While 82 per cent of females still attended schools at age 15, only 74 per cent of males did. At age 16 the proportions were 59 and 74 per cent of males and females respectively. At age 19, only 13-14 per cent of all males and females were still attending school, and only 2 per cent of persons aged 20-24 years were still in school.

1.3.2 Highest primary or secondary level completed

Less than one per cent of the resident population has had no schooling at all (Table 12). About 69 per cent has attended secondary school (Form 1-6), and 4.8 per cent of males and 4.4 per cent of females completed form 7¹. The proportion of attending or completing secondary education was higher in Rarotonga than in the Outer Islands.

There is little difference in the proportion of males and females that have attended and/or completed the different educational levels.

Table 12: Resident population 5 years and older by sex, region and highest primary or secondary level completed

Highest level completed	COOK ISLANDS		Rarotonga		Southern Group		Northern Group	
	M	F	M	F	M	F	M	F
No schooling	0.2	0.5	0.1	0.4	0.5	0.9	0.5	0.3
Special education	0.1	0.1	0.2	0.2	0.0	0.0	0.0	0.0
Pre-School	1.6	1.4	1.6	1.4	1.6	1.3	2.1	1.3
Primary attended	16.5	16.1	14.8	14.4	19.2	18.7	19.2	19.8
Primary completed	6.7	5.5	5.4	4.3	9.0	7.4	8.4	8.7
Secondary attended	68.2	69.9	69.6	71.3	65.7	67.5	66.1	67.3
Secondary completed	4.8	4.4	6.5	6.2	1.7	1.4	2.5	1.3
Not stated	1.9	2.0	1.8	1.9	2.4	2.8	1.2	1.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note: 'Primary attended' incl. Grade 1-5, 'Primary completed' incl. Grade 6, 'Secondary attended' incl. Form 1-6, 'Secondary completed' incl. Form 7

Persons aged 20-34 years had the highest proportion that has completed secondary education. Eleven per cent of females completed secondary education compared to 9 per cent of males.

1.3.3 Educational qualification

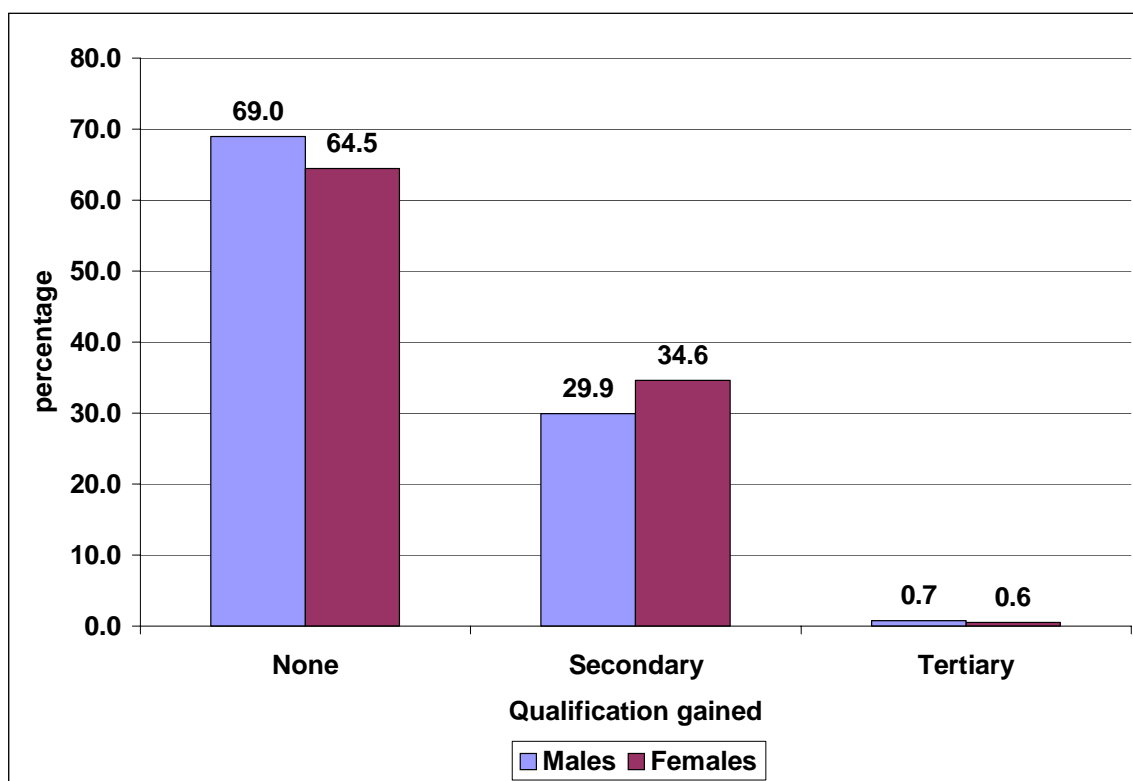
The proportion of the resident population with no educational qualifications was with 69 per cent of males and 64.5 per cent of females relatively high (Figure 11). The older the population, the more likely it was that they had no educational qualifications; 85 and 92 per cent of males and females older than 65 years had no qualifications.

Almost 30 per cent of males and 34.6 per cent of females had secondary qualifications, and less than 1 per cent of males and females had tertiary qualifications.

¹ Form 7 was only introduced in the early 1990s

The proportion of people in the Outer Islands with no qualifications was much higher than in Rarotonga, where the proportion of people with secondary education was more than twice as high as in the Outer Islands.

Figure 11: Resident population over 5 years with highest educational qualification gained



1.3.4 Trade vocational/ professional qualification

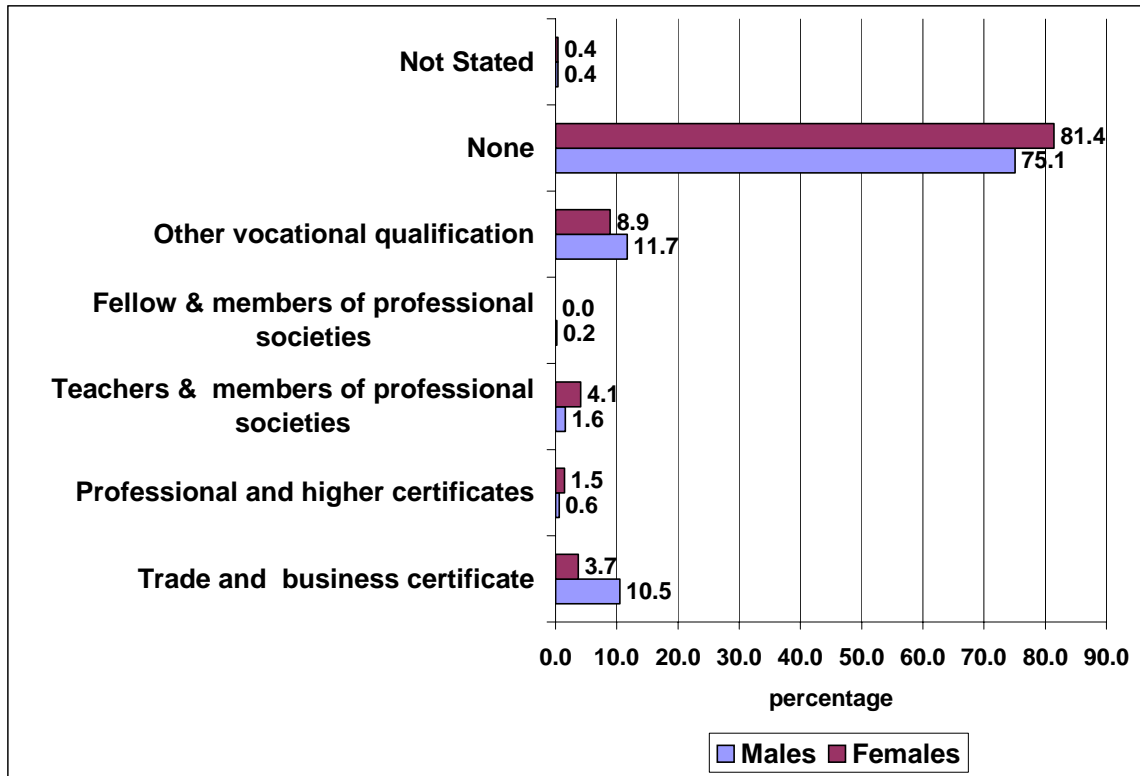
The vast majority of the resident population did not have a trade vocational or professional qualification, which was 75.1 per cent of males and 81.4 per cent of females (Figure 12).

Generally, males were more likely to have a qualification than females. While 10.5 per cent of males had a trade and business certificate, it was only 3.7 per cent of females. Females were more likely to have a teacher's qualification or be a member of a professional society than males.

The proportion of males and females with a qualification were significantly higher in Rarotonga than in the Outer Islands.

The number of persons with a qualification gradually increased with increasing age of the population. The highest percentage of people with a qualification was in the age group 55-59 years.

Figure 12: Resident population 15 years and older by sex and trade vocational/ professional qualification gained



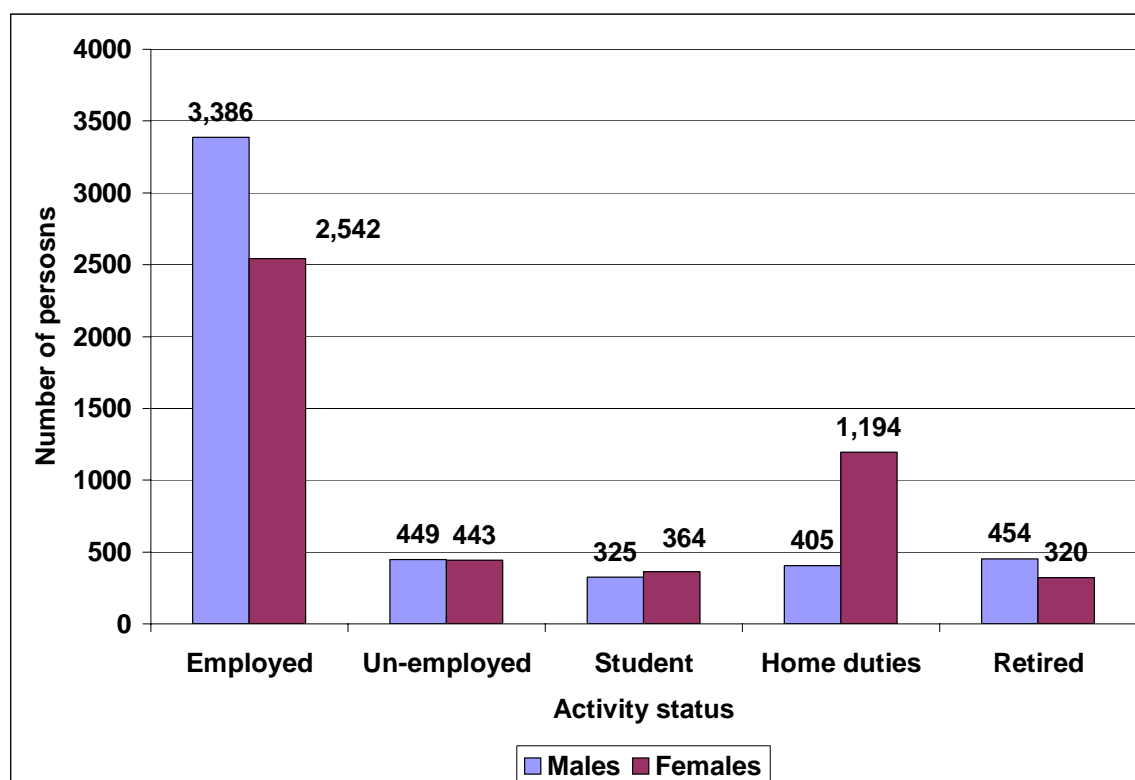
1.4 ECONOMIC CHARACTERISTICS

1.4.1 Activity status

Out of a total of 9,882 residents 15 years and older, 69 per cent (6,820) were economically active and part of the labour force (Figure 13). The rest, 3,062 people were not economically active. These included students, persons who were retired, or who were engaged in full time home duties. Slightly more than half of the labour force were males (56 per cent).

Eighty-seven per cent (5,928) of the population in the labour force was employed; the other 13 per cent (892) were unemployed. The majority (57 per cent) of employed persons were males (3,386). The female employed population was 2,542. There were almost equally numbers of unemployed males (449) and females (443). There were almost equally numbers of unemployed males (449) and females (443).

Figure 13: Resident population 15 years and older by sex and economic activity



1.4.2 Labour Force

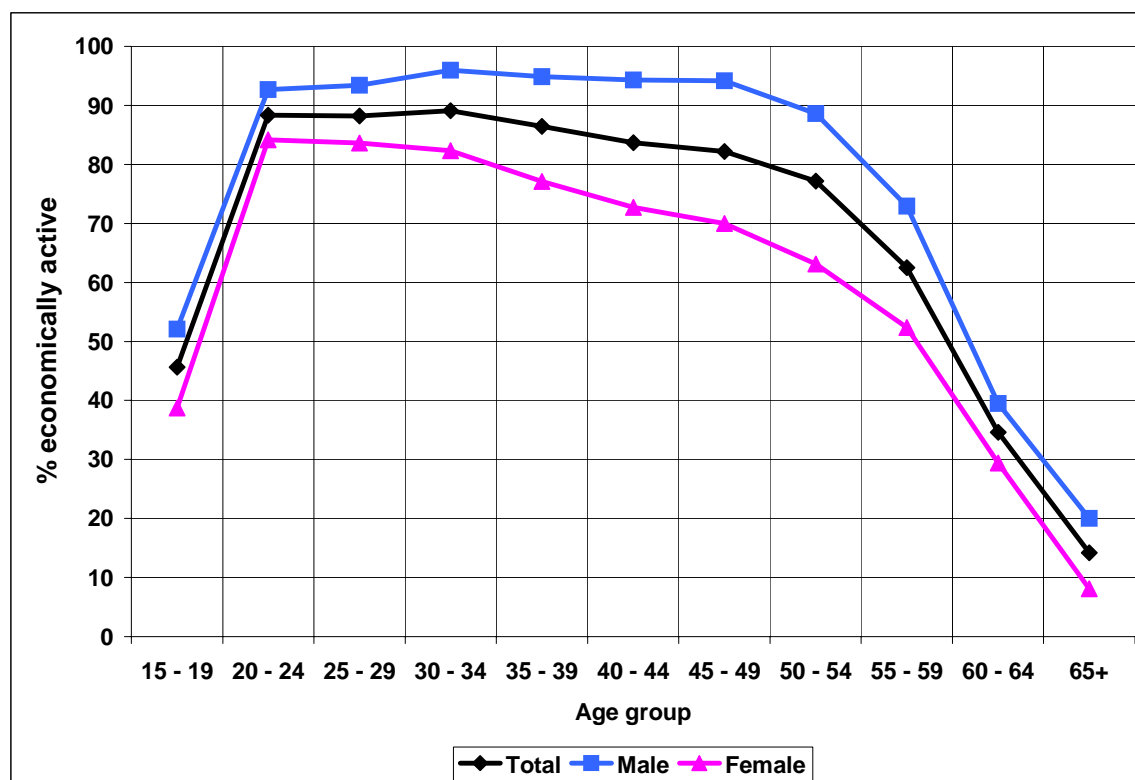
Not surprisingly, the labour force indicators were more positive in Rarotonga than in the Outer Islands (Table 13). The labour force participation rate and the employment-population ratio were considerable higher in Rarotonga than in the Outer Islands. The unemployment rates were 4-5 times higher in the Southern and Northern Group islands than in Rarotonga. In the Northern Group islands, more than one-third of the labour force was unemployed.

Table 13: Resident population 15 years and older by sex, region and labour force indicators

Island/Region	Labour force participation rate			Employment-population ratio			Unemployment rate		
	T	M	F	T	M	F	T	M	F
Rarotonga	76.1	80.8	71.3	71.0	76.8	65.2	6.7	5.0	8.6
Southern Group	53.8	64.5	43.3	39.4	49.4	29.6	26.8	23.5	31.6
Northern Group	60.1	75.8	41.6	39.3	52.1	24.3	34.6	31.3	41.7
COOK ISLANDS	69.0	76.4	61.4	60.0	67.5	52.3	13.1	11.7	14.8

Male labour force indicators were more positive than female labour force indicators. While both, the labour force participation rate and the employment-population ratio were higher for males than for females throughout the regions of the Cook Islands, the unemployment rates were higher for females. In the Northern Group, the unemployment rate of females was almost 42 per cent.

Figure 14: Resident population 15 years and older by sex and proportion economically active

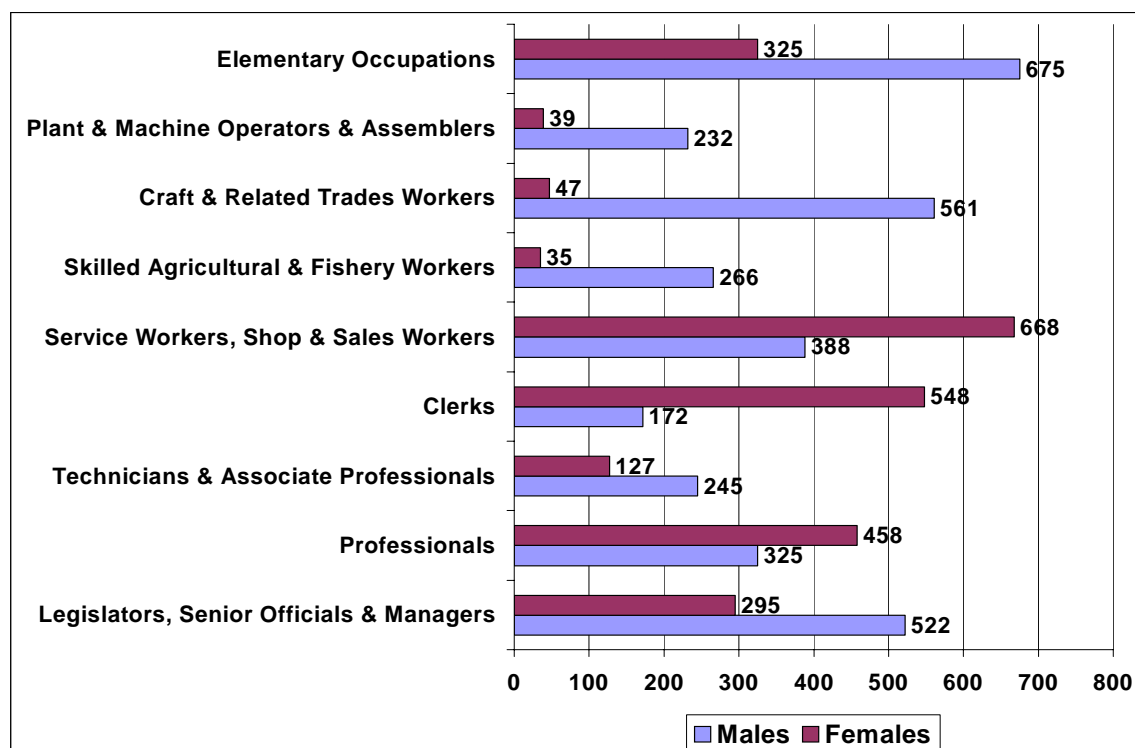


Slightly more than half (52 per cent) of all male teenagers aged 15-19 were economically active, this compares to 39 per cent of female teenagers (Figure 14). While the proportion of economically active males remained high at well above 90 per cent throughout most of their adult life (20-50 years of age), the proportion of economically active females gradually declined after age 35. Until then it leveled at just over 80 per cent between ages 20-34. At age 65 years and older, 20 per cent of males and 8 per cent of females were still economically active.

1.4.3 Occupation

The biggest occupational group was the category 'Service Workers, Shop & Sales Workers' with 18 per cent of all employees, closely followed by 'Elementary Occupations' with 17 per cent of all employees (Figure 15). 'Legislators, Senior Officials & Managers' made up 14 per cent of the workforce, and 'Professionals' 13 per cent. Twelve per cent were 'Clerks' and another 10 per cent 'Craft & Related Trades Workers'. Lastly 'Technicians & Associate Professionals' made up 6 per cent of all employees, and 'Skilled Agricultural & Fishery Workers' and 'Plant & Machine Operators & Assemblers' took up each 5 per cent of all workers.

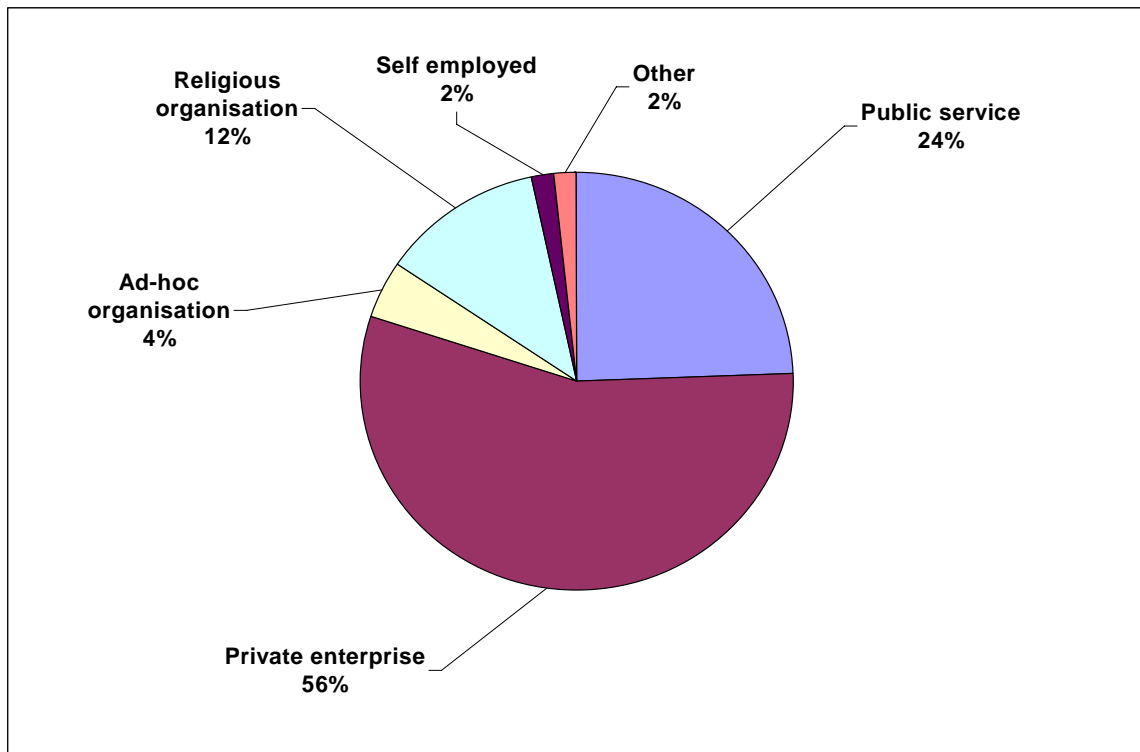
Figure 15: Resident population 15 years and older by sex and occupation



Females dominated the occupations, 'Service Workers, Shop & Sales Workers', 'Clerks' and 'Professionals'. Males dominated all other occupational groups.

In 2001, the private sector was the largest employer with 56 per cent of all employees working there, followed by the Government with 24 per cent (Figure 16). Another large sector were Religious organizations with 12 per cent.

Figure 16: Resident population 15 years and older by sex and sector of employment



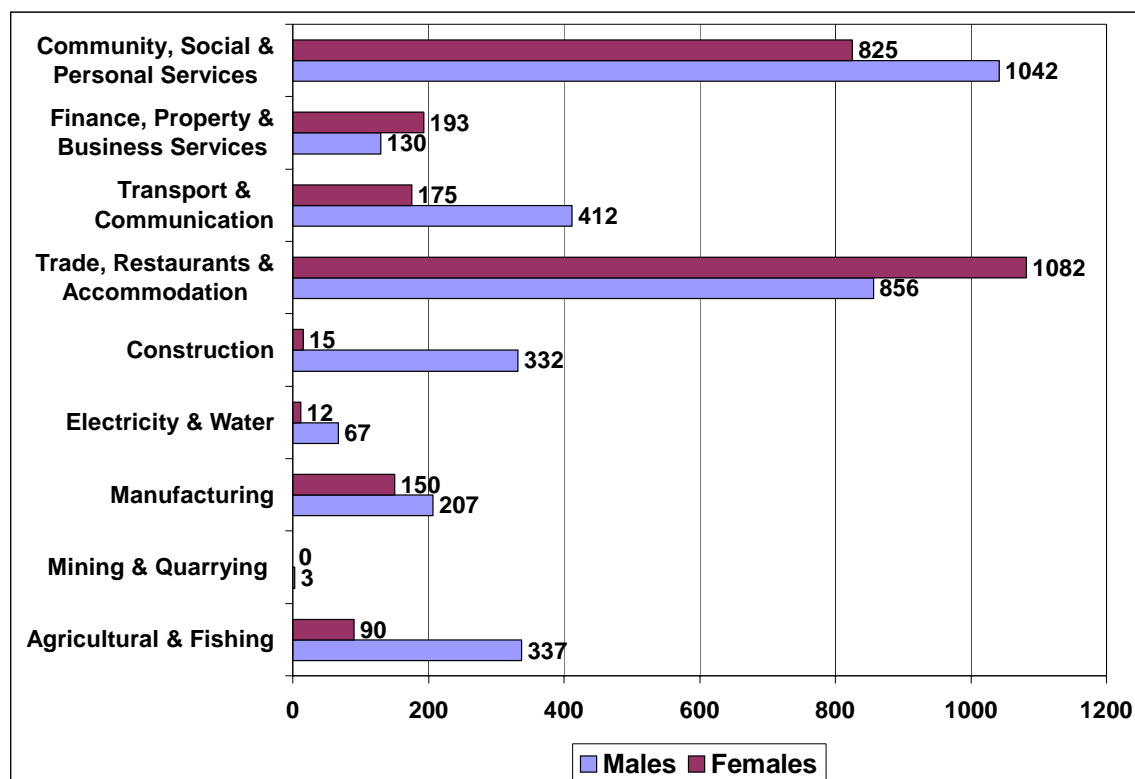
However, there was great variation in the importance of sectors of employment among the regions. While the Government employed only 20 per cent of all employees in Rarotonga, it was more than 40 per cent in the Outer Islands. The proportion of public sector employment was as high as 87-88 per cent in Rakahanga, Nassau and Pukapuka. It was 75 and 77 per cent in Palmerston and Mitiaro.

1.4.4 Industry

The biggest industry was with almost 33 per cent the 'Trade, Restaurants & Accommodation' industry, closely followed by 'Community, Social & Personal Services' with 31.5 per cent (Figure 17). Another 10 per cent worked for the 'Transport & Communication' industry, and 7 and 6 per cent worked for 'Agricultural & Fishing' and 'Manufacturing', and also 6 per cent in 'Construction'. Lastly 5 per cent worked in the 'Finance, Property & Business Services' industry, and only 1.3 per cent in 'Electricity & Water'.

The only industry dominated by females was the 'Finance, Property & Business Services' industry, all other industries were dominated by males.

Figure 17: Resident population 15 years and older by sex and industry of employment



1.4.5 Non-Labour Force

As mentioned earlier, the non-labour force included people that were not economically active such as students, retired persons and people who are engaged in full time home duties. They comprised 3,062 people or 31 per cent of the population 15 years and older. More than half (52 per cent) were engaged in home duties (1,599 persons), one quarter or 774 people were retired, and 689 people or 22.5 per cent were students.

The majority of the non-labour force was with 61 per cent females, who made up three-quarter of all persons engaged with full time home duties. In 2001 there were also slightly more female students (364) than male students (325). However, there were more male retirees (454) than female retirees (320).

The proportion of the non- labour force as part of the total population was much larger in the outer islands than in Rarotonga.

1.4.6 Income

During the 2001 census all persons 15 years and older were asked to record their gross annual income from all sources, including benefits. As expected, the highest income earners were males – in Rarotonga (Table 14).

The average annual income of all Cook Islands residents was \$12,253 - \$14,121 for males and \$10,328 for females. Income levels were about 80 per cent higher in Rarotonga than in the Outer Islands, and males earned on average 37 per cent more than females.

Sixteen per cent of the population 15 years and older had no income, while 2 per cent had an income of more than \$50,000 per annum.

Table 14: Resident population 15 years and older by sex, region and income range (in New Zealand Dollars)

	COOK ISLANDS			Rarotonga			Southern Group			Northern Group		
	T	M	F	T	M	F	T	M	F	T	M	F
Total persons	9,882	5,019	4,863	6,431	3,258	3,173	2,383	1,183	1,200	1,068	578	490
Income range	(percentage)											
No income	16.2	16.4	15.9	10.5	9.2	11.9	26.1	27.4	24.9	27.7	34.1	20.2
Less than \$5,000	27.0	20.2	34.0	21.3	16.6	26.2	37.5	28.5	46.4	37.6	23.2	54.7
\$5,000- \$9,999	19.2	21.0	17.4	20.1	20.7	19.6	18.1	22.1	14.2	15.9	20.2	10.8
\$10,000-\$14,999	13.9	15.4	12.3	16.6	18.0	15.1	9.2	11.0	7.4	7.9	9.2	6.3
\$15,000-\$19,999	9.5	9.8	9.1	12.1	12.3	11.8	5.0	5.7	4.3	3.6	3.5	3.7
\$20,000-\$29,999	7.9	8.9	6.8	10.5	11.7	9.3	2.5	3.3	1.8	3.9	5.2	2.4
\$30,000-\$39,000	2.7	3.3	2.1	3.7	4.5	2.9	0.8	1.0	0.6	1.0	1.7	0.2
\$40,000-\$49,000	1.2	1.6	0.8	1.7	2.3	1.2	0.3	0.4	0.2	0.3	0.3	0.2
\$50,000-\$59,000	0.7	1.2	0.3	1.0	1.7	0.4	0.1	0.1	0.2	0.4	0.7	0.0
>\$59,000	1.2	1.9	0.6	1.7	2.6	0.8	0.1	0.3	0.0	0.8	1.0	0.6
Not stated	0.6	0.5	0.7	0.7	0.5	0.9	0.1	0.2	0.1	0.8	0.9	0.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Average annual income (\$)	12,253	14,121	10,328	14,236	16,117	12,237	7,485	8,748	6,283	8,390	10,755	6,092

Most males were in the income group \$5,000-\$9,999, while most females were in the income group 'less than \$5,000'.

1.4.7 Welfare benefits

As part of the census enumeration, all persons 15 years and older were asked to record their social welfare benefits that they received during the year before the census (Table 15).

Table 15: Resident population 15 years and older by sex and welfare benefits received during year before the census

Resident population	Welfare benefits					
	None	Child benefit	Old Age pension	Destitute/ infirm	Super-annuation	War pension
Males	3,960	180	695	95	232	5
Females	2,387	1,699	681	107	161	6
Total	6,347	1,879	1,376	202	393	11

The available benefits were child benefit, old age pension, destitute/infirm, superannuation, and war pension.

Slightly more than half of all females 15 years and older received a benefit, and 21 per cent of males. While males received mainly old age pensions followed by superannuation, females mainly received child benefits followed by old age pension.

1.4.8 Land rights and land tenure

The two main categories of land in the Cook Islands are "customary" and "freehold". Cook Islanders hold customary land under the Maori custom. Freehold land is

investigated land to which titles have been ascertained and the land vested in the person named. Rights acquired are subject to the rights held by others that claim title to the land. Alienating of customary land is prohibited. Mangaia, Mitiaro and Pukapuka have no land court, and customary law determines land rights.

Table 16: Resident population 15 years and older by sex, region and land rights and tenure

Island/Region	No Rights	Rights established	Rights by			
			Succession	Sole Occupation	Joint Occupation	Lease/ Sub-lease
COOK ISLANDS Total	6,871	3,013	1,276	996	569	923
Males	3,467	1,553	647	528	263	490
Feales	3,404	1,460	629	468	306	433
Rarotonga Total	4,232	2,201	837	631	387	851
Males	2,125	1,134	414	341	180	448
Feales	2,107	1,067	423	290	207	403
Southern Group Total	1,626	757	398	360	181	58
Males	801	382	208	183	82	31
Feales	825	375	190	177	99	27
Northern Group Total	1,013	55	41	5	1	14
Males	541	37	25	4	1	11
Feales	472	18	16	1	0	3

Note: 'Rights established' and Type of Rights' do not add up because one person can have several different rights to different pieces of land

From census information on land rights and tenure, 70 per cent, (6,871 persons) of the resident population 15 years and older have no land rights (Table 16). This category includes persons who would eventually succeed to land but the land court has not yet determined their rights.

Only 30 per cent of the resident population has established land rights, either by legal succession, by sole occupation, by joint occupation, or by lease or sub-lease.

Males and females have equal right to land and tenure, which is supported by the census data.

1.5 HOUSEHOLD CHARACTERISTICS

1.5.1 Household size

The 2001 census counted a total of 4,041 occupied dwellings; 3,880 privately occupied dwellings, and 161 non-private dwellings such as accommodation for short-term visitors, institutions such as hospitals, hostels, and prisons. The number of non-private dwellings has increased substantially since 1996 when only 45 such dwellings were counted.

The number of private occupied dwellings decreased by 273 compared to 1996 (Table 17). While this decrease was only very moderate in Rarotonga, it was substantial in the Outer Islands. In the Southern Group islands, the number of households decreased by 14 per cent, and in the Northern Group islands it was 16 per cent. Nassau, Manihiki, Rakahanga, and Penrhyn have lost more than 20 per cent of their private dwellings during the period 1996-2001.

Table 17: Number of privately occupied households and average household size by island, 1991, 1996 and 2001

Island/ Region	1991		1996		2001	
	Number of households	Average household size	Number of households	Average household size	Number of households	Average household size
Rarotonga	2,222	4.6	2,569	4.1	2,531	3.9
Southern Group	1,035	5.2	1,127	4.7	965	4.0
Aitutaki	440	5.2	496	4.6	435	4.1
Mangaia	228	5.3	237	4.7	197	3.8
Atiu	192	5.2	197	4.8	161	3.9
Mauke	120	5.3	133	4.9	110	4.3
Mitiaro	55	4.5	64	5	62	3.7
Northern Group	420	5.4	457	5.4	384	4.8
Palmerston	10	4.9	11	4.5	12	4.0
Pukapuka	112	6	120	6.5	124	5.4
Nassau	18	5.7	21	4.7	15	4.8
Manihiki	134	4.9	149	4.5	117	4.4
Rakahanga	44	6	42	5.9	32	5.3
Penrhyn	101	5	113	5.4	83	4.3
Suvarrow	1	10	1	4	1	1.0
Total	3,677	4.9	4,153	4.4	3,880	4.0

The average number of persons per household in the Cook Islands was 4 people compared to 4.4 in 1996, and 4.9 ten years ago, in 1991.

The reduction in average household size was most pronounced in the Southern and Northern Group Islands, where the decrease was from 4.7 to 4.0 and from 5.4 to 4.8

persons per household between 1996 and 2001 respectively. In general, there were marked differences in household size by region and islands. It ranges from 5.4 in Pukapuka to only 3.7 persons per household in Mitiaro. Household sizes were higher in the Northern Group islands (4.8 people per household) than in the Southern Group islands (4.0) or Rarotonga (3.9).

Nearly 8 per cent of the population living in privately occupied dwellings lived in households with more than 10 persons per household. On the other hand, one-person households increased from 492 in 1996 to 544 in 2001 (Table 18).

Table 18: Number of privately occupied households by household size and persons per household

Household size	Number of private households		Number of persons per HH*	
	no	%	no	%
1	544	14.0	544	3.5
2	702	18.1	1,404	9.1
3	673	17.3	2,019	13.1
4	583	15.0	2,332	15.2
5	506	13.0	2,530	16.5
6	352	9.1	2,112	13.8
7	211	5.4	1,477	9.6
8	125	3.2	1,000	6.5
9	82	2.1	738	4.8
10+	102	2.6	1,203	7.8
Total	3,880	100.0	15,359	100.0

*incl. 377 visitors

1.5.2 Household composition

Data on household composition was established by identifying a head of household who serves as a reference person to whom all other persons in the household, in terms of family membership, can be related (Table 19).

The majority of all heads of households in the Cook Islands were with 76 per cent men (2,952) and 24 per cent (931) were women.

Seventy-seven per cent of all household members were husbands, their wives and children (the so-called nuclear family). However, the proportions of extended family structures were higher in the outer islands, especially in the Northern Group islands, than in Rarotonga.

Almost 13 per cent were grandchildren of the household head. This percentage was considerably higher in the Outer Islands. In the Northern Group islands, the percentage of nephews/nieces was with 7 percent of all household members relatively high.

Table 19: Resident population by household composition (relationship to head of household)

Relationship	Total	Male	Female	Total	Male	Female
	Total number			Percentage		
Head of Household	3,883	2,952	931	25.9	38.1	12.8
Spouse	2,507	266	2,241	16.7	3.4	30.9
Child (incl adopted/feeding)	5,120	2,616	2,504	34.2	33.8	34.5
Grandchild	1,869	1,012	857	12.5	13.1	11.8
Nephew/niece	575	333	242	3.8	4.3	3.3
Other relatives	336	163	173	2.2	2.1	2.4
Non-relatives	700	396	304	4.7	5.1	4.2
Total	14,990	7,738	7,252	100.0	100.0	100.0

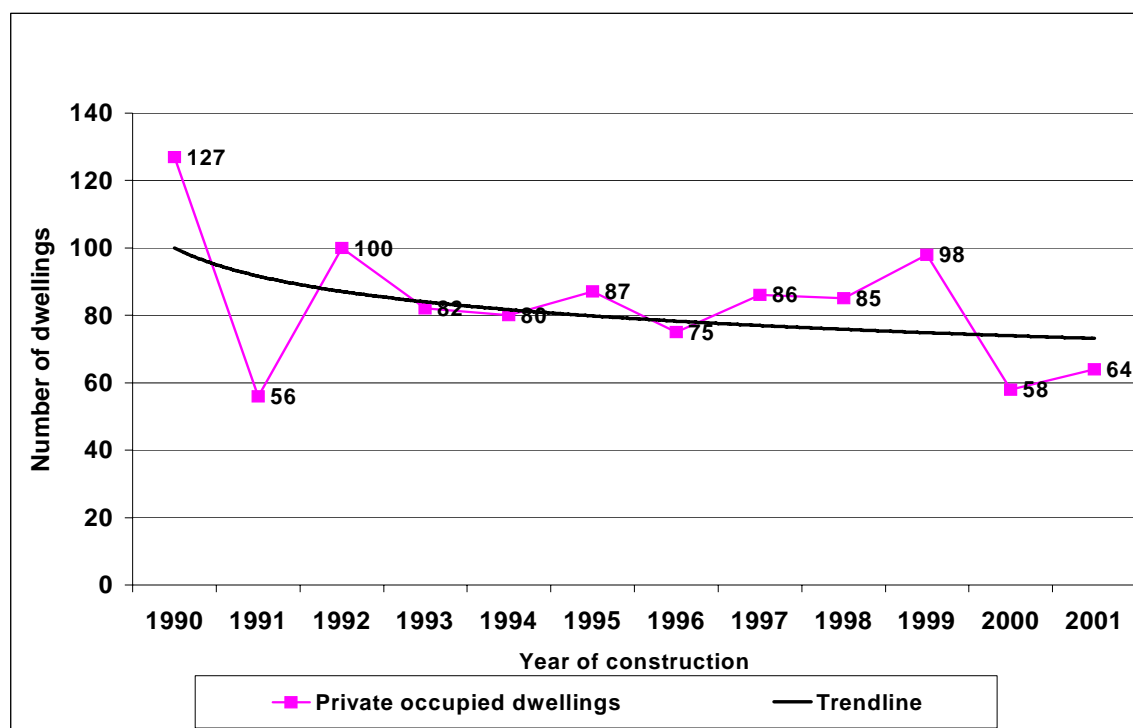
1.6 HOUSING/DWELLING CHARACTERISTICS

1.6.1 Year of construction

Since the 1960s there has been a significant increase in the average number of private dwellings constructed each year, from 25 in the 1950s to over 80 in the 1960s.

During the period 1990-1999, an average of 88 new houses were built, although with a slight decreasing trend (Figure 18). In the year 2000 only 58 new buildings were built, and during the 11 months before the census was taken in 2001, 64 new private dwellings were constructed.

Figure 18: Privately occupied dwellings by year of construction, 1990-2001

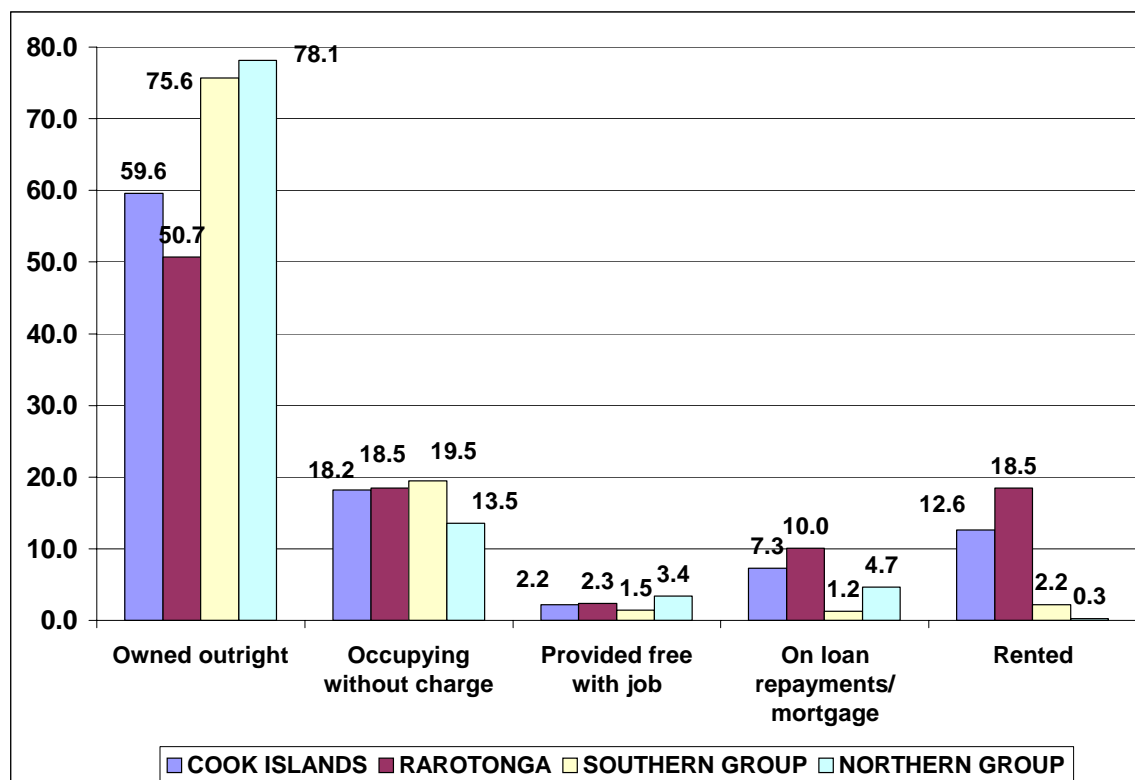


1.6.2 Dwelling tenure

Of the 3,880 private dwellings in the Cook Islands, 59.6 per cent (2,313) were owned outright, a decrease compared to 1996, when 66 per cent or 2,757 houses were owned outright (Figure 19). As can be expected, a higher proportion of houses on the Outer Islands were owned outright than on Rarotonga.

In 2001, 793 dwellings were occupied either free of charge or were provided with employment. Only 284 houses (7.3 per cent) had direct or mortgage repayment commitments, a slight increase since 1996, when these were only 250 dwellings.

Figure 19: Privately occupied dwellings by region and tenure



Rented dwellings totaled 490 or 12.6 per cent of all houses, a slight increase compared to 456 in 1996. Almost all rented dwellings were located in Rarotonga (468).

Thirty per cent of all rented dwellings were unfurnished, 42 per cent partly furnished, and 28 per cent fully furnished.

Of the total rented dwellings, 240 (49 per cent) were rented for less than \$100 per week, 109 or 22 per cent were rented for \$100-\$149 per week, 116 rented dwellings for \$150-\$250 per week, and 25 for more than \$250 per week.

1.6.3 Housing structure

The census data show that 52.7 per cent of the walls of all private dwellings were constructed of concrete blocks, 15.7 per cent of wood and timber, and 16.3 per cent of fibrolite (Table 20). Wood and timber was used notably in the Northern Group, where 28 per cent of all walls were made of timber. The walls of every seventh house (13.7 per cent) in the Southern Group islands were made of lime.

Table 20: Privately occupied dwellings by region and type of building materials

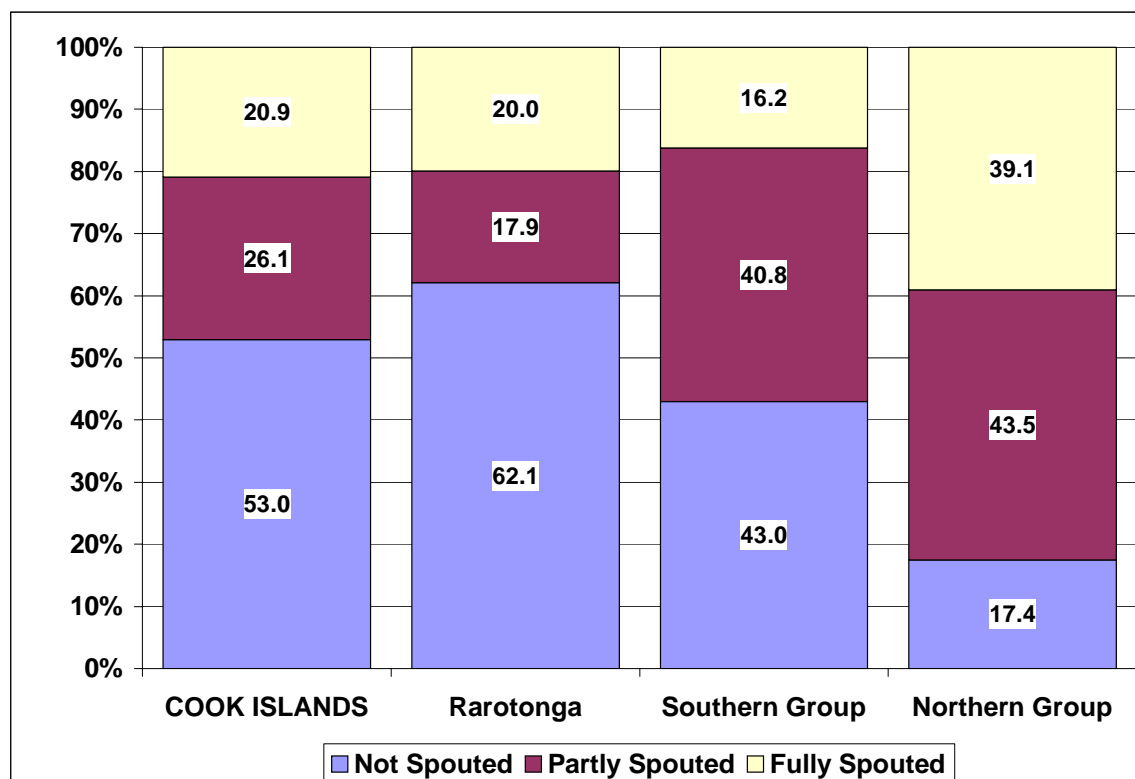
Building Material	COOK ISLANDS	Rarotonga	Southern Group	Northern Group
Walls				
Wood timber	15.7	17.5	6.3	28.1
Lime	5.3	1.9	13.7	6.8
Concrete blocks	52.7	52.7	52.2	53.4
Hardboard	8.2	8.8	8.1	4.7
Fibrolite	16.3	17.6	17.7	4.2
Roofing Iron	1.5	1.3	1.8	1.8
Other materials	0.3	0.2	0.2	1.0
Roof				
Roofing Iron	96.5	96.8	98.1	90.9
Asbestos	0.4	0.4	0.2	0.3
Kikau	1.3	0.1	1.6	8.1
Tiles	1.0	1.4	0.1	0.3
Concrete	0.2	0.3	0.0	0.0
Other	0.7	1.0	0.0	0.5
Floor				
Wood/timber	8.3	10.4	2.5	9.1
Concrete	88.5	87.2	94.0	83.9
Gravel	1.1	0.3	1.8	5.2
Earth	0.1	0.0	0.1	0.0
Lime	0.7	0.3	1.2	1.8
Tiles	1.2	1.8	0.0	0.0
Other	0.2	0.1	0.4	0.0

The roofs in the Cook Islands were predominantly made of roofing iron (96.5 per cent). Kikau was only used with any significance in the Northern Group islands, where 8.1 per cent used the traditional material for their roofs.

The floors in the Cook Islands were mainly made of concrete (88.5 per cent), and sometimes of wood and timber (8.3 per cent).

The majority (62.1) of houses in Rarotonga were not spouted, while most houses in the Outer Islands were at least partly spouted (Figure 20). The highest percentage of fully spouted houses was at 39 per cent in the Northern Group islands.

Figure 20: Privately occupied dwellings by region and whether spouted



1.6.4 Number of rooms

The average number of rooms per private occupied dwelling in the Cook Islands was 5.2, excluding the kitchen and veranda (Table 21). The Northern Group islands had with an average of only 4.7 rooms significantly less rooms than the average Cook Islands households.

Table 21: Privately occupied dwellings by region and number of rooms

Island & Region	Number of rooms (as % of all dwellings)							Average
	1	2	3	4	5	6	7+	
Rarotonga	1.7	4.5	9.3	15.6	25.1	21.5	22.3	5.3
Southern Group	4.4	5.5	9.0	16.4	22.5	19.8	22.5	5.2
Northern Group	3.6	10.4	14.8	19.5	19.8	16.4	15.4	4.7
COOK ISLANDS	2.5	5.4	9.8	16.2	23.9	20.6	21.6	5.2

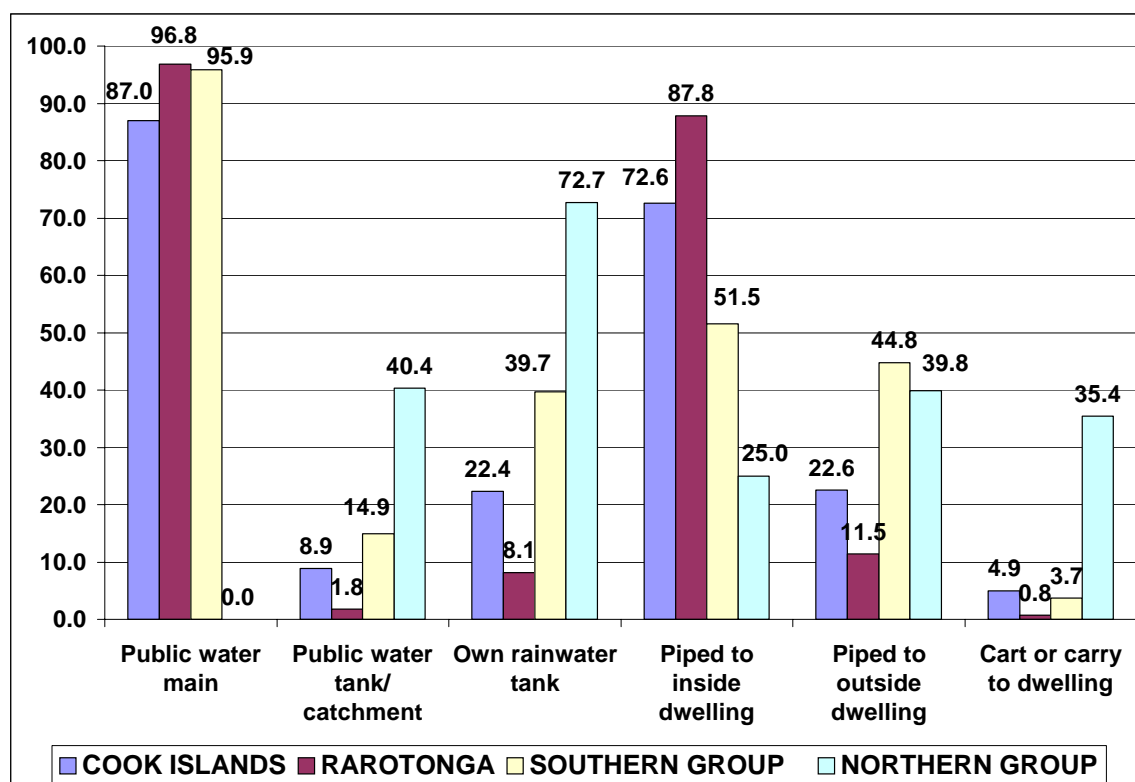
*excluding kitchen and veranda

1.6.5 Source and supply of water

A total of 3,375 (87 per cent) privately occupied dwellings used the public water main as their source of water supply (Figure 21). The usage of the public water main was almost universal in Rarotonga (96.8 per cent) and in the Southern Group islands (95.9). There was no public water main system in the Northern Group islands. Therefore most households in the Northern Group relied on their own water tank (72.7 per cent) and/or received water from the public water tank/catchments (40.4 per cent). The percentage of own water tanks was also high in the Southern Group islands (40 per cent), but relatively rare in Rarotonga (8.1 per cent).

Piping water inside of dwellings was predominant in Rarotonga (87.8 per cent), while many households in the Outer Islands had piped water only to the outside of their dwelling (Figure 21). More than a third (35.4 per cent) of all households in the Northern Group had to cart or carry their water to their house.

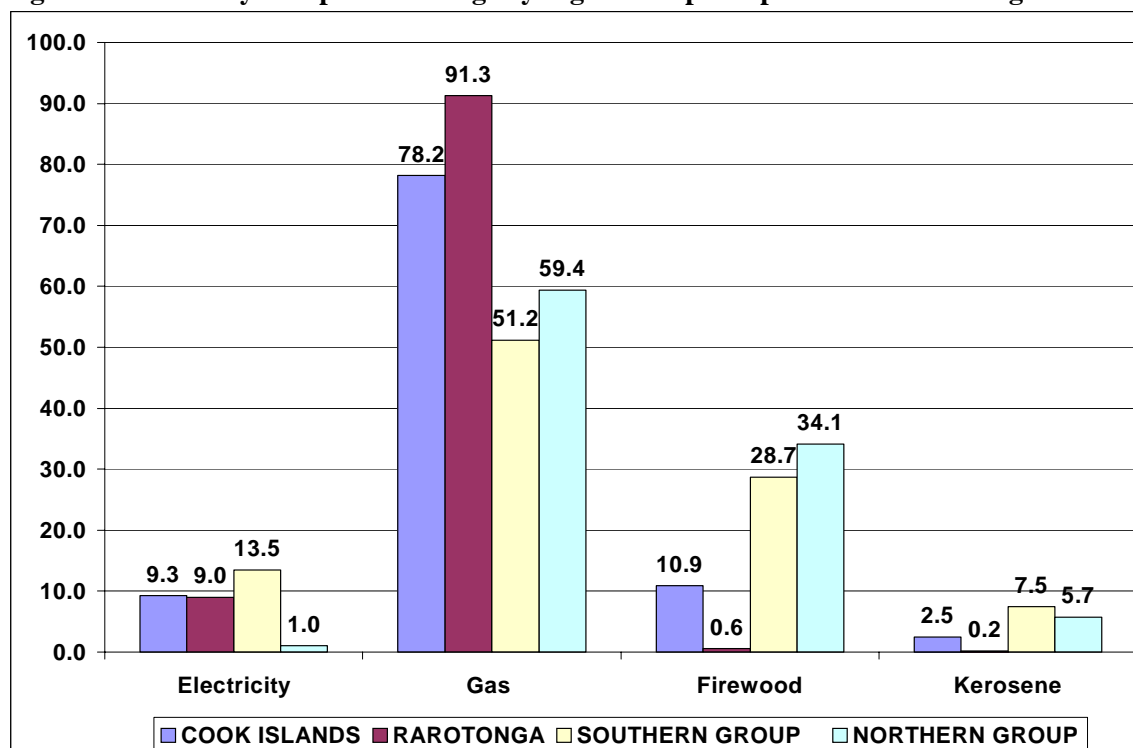
Figure 21: Privately occupied dwellings by region, source of water and supply of water



1.6.6 Principal means of cooking fuel

The vast majority (78.2 per cent) of households used gas as their main means of cooking fuel in the Cook Islands (Figure 22). This percentage was highest in Rarotonga (91.3 per cent), and lowest in the Southern Group islands (51.2 per cent) where every seventh household (13.5 per cent) used electricity. Firewood and kerosene were relatively common in the Outer Islands.

Figure 22: Privately occupied dwellings by region and principal means of cooking fuel



1.6.7 Means of generating electricity

Almost all private occupied dwellings were connected to the grid (Table 22). This includes Rarotonga and the Southern Group islands. In contrast, many households (43 per cent) in the Northern Group islands generated electricity using solar power or generators (22.4 per cent). Solar power in general was used by only 8 per cent of all private occupied dwellings in the Cook Islands. However, 1.2 per cent of all households had no electricity at all.

Table 22: Privately occupied dwellings by region and means of generating electricity

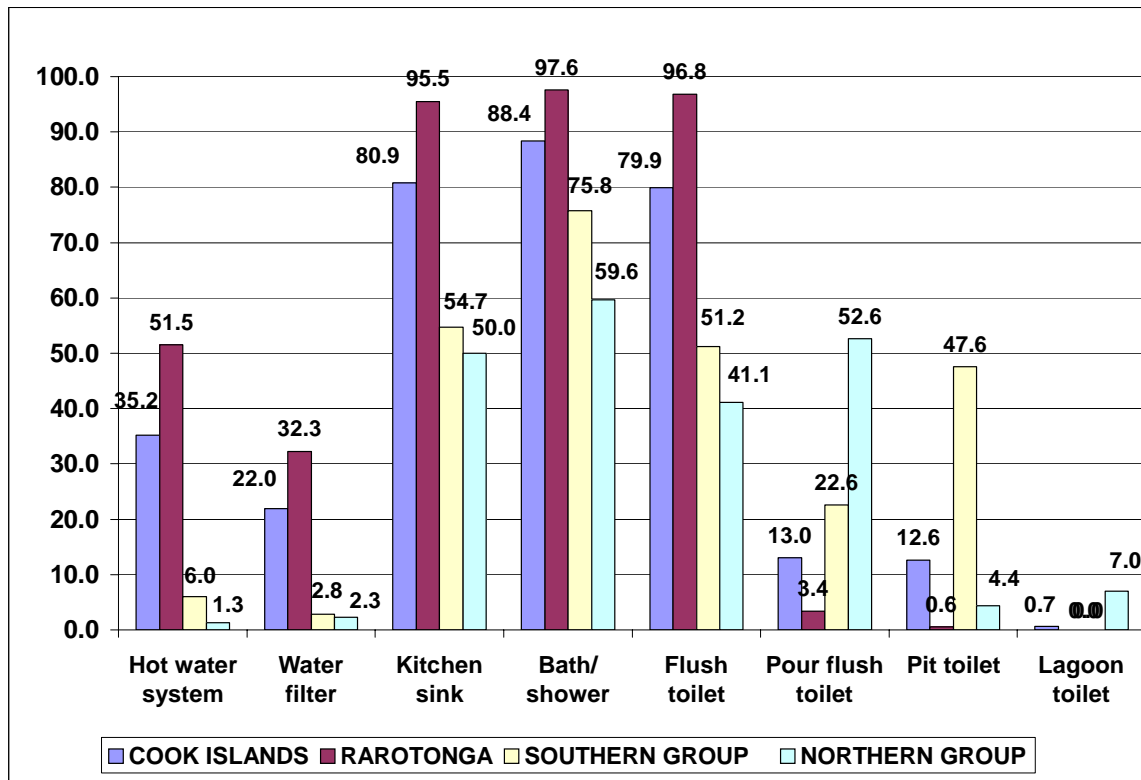
Island & Region	Number of households	Means of generating electricity (%)			
		Grid	Generator	Solar	No electricity
Rarotonga	2,531	98.8	0.8	5.1	0.8
Southern Group	965	96.7	1.9	1.3	2.0
Northern Group	384	59.9	22.4	43.0	1.3
COOK ISLANDS	3,880	94.4	3.2	7.9	1.2

1.6.8 Hygienic facilities

While the majority of households in Rarotonga (51.5 per cent) had a hot water system in place, only few had a hot water system in the Outer Islands (Figure 23). A water filter was available by about a third of all households in Rarotonga, but was rarely seen in the Outer Islands. While almost all households in Rarotonga had a kitchen sink, just over half of all households had one in the Outer Islands. A bath or shower was available in almost

every household in Rarotonga. Only three out of four households in the Southern Group islands, and 60 per cent of the households in the Northern Group islands had a bath or shower.

Figure 23: Privately occupied dwellings by region and type of hygienic facilities

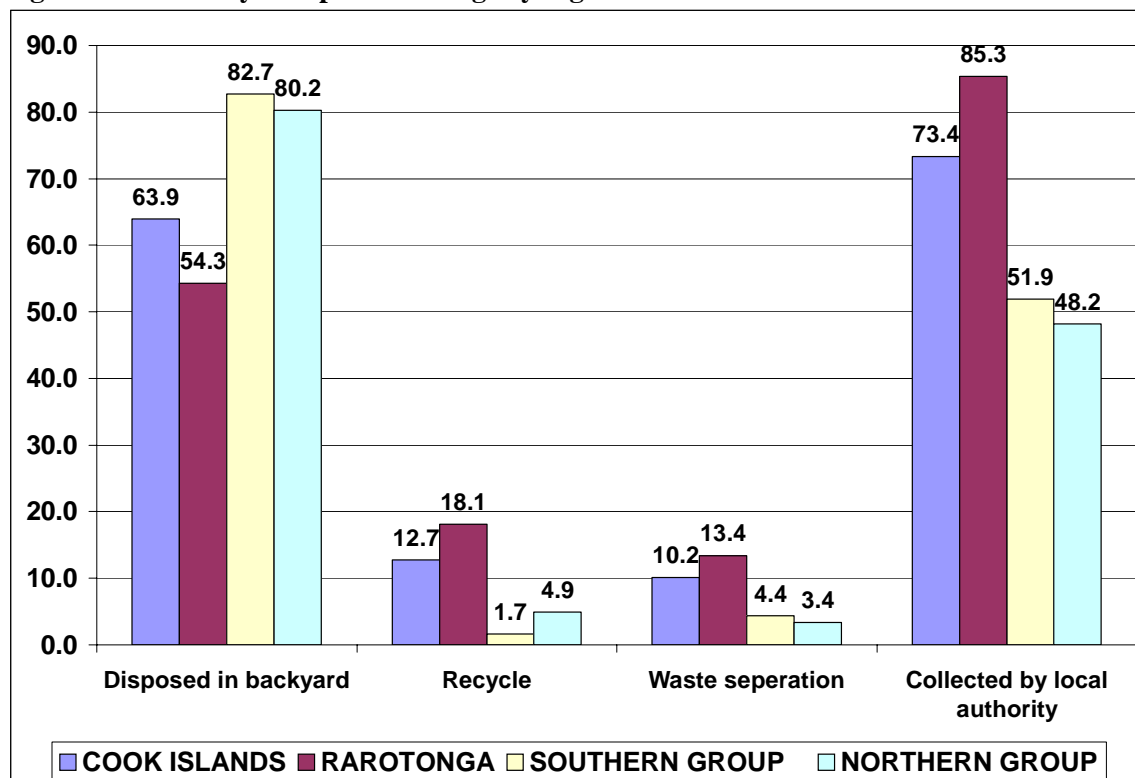


Eighty per cent of all Cook Islands household had a flush toilet installed. This was 97 per cent in Rarotonga, 51 per cent in the Southern Group islands, and only 41 per cent in the Northern Group islands. There the pour flush toilet was at 53 per cent of all households the main type of toilet. Almost half (47.6 per cent) of all households in the Southern Group islands used a pit toilet.

1.6.9 Means of waste disposal

The main means of waste disposal in the Cook Island at 73.4 per cent was the collection by the local authorities (Figure 24). This however was highest in Rarotonga, where 85.3 per cent of all private occupied dwellings had their waste collected, compared to only 51.9 per cent and 48.2 per cent in the Southern and Northern Group islands respectively.

Figure 24: Privately occupied dwellings by region and waste



Almost two-thirds (63.9 per cent) of all households disposed of their waste in their backyard. Recycling was very low in the Outer Islands. In Rarotonga 18.1 per cent of all private households recycled their waste.

1.6.10 Household appliances and amenities

Since electricity has become available throughout the Cook Islands, the use of electrical appliances for cooking, general household tasks, entertainment and personal care has increased during the last decades. Some examples include: 15.5 per cent of all private occupied dwellings had a *electrical stove* available, 33.4 per cent a *microwave*, 68.7 per cent a *freezer*, 65.5 per cent a *washing machine*, 99.2 per cent a *TV* (that was only 80 per cent of all households in the outer islands while households in Rarotonga had on average more than 1 TV available), 93 per cent a *radio* (98 per cent in Rarotonga, and 83 per in the Outer Islands), 21.9 per cent a *computer*, and 44.7 per cent a *drill*.

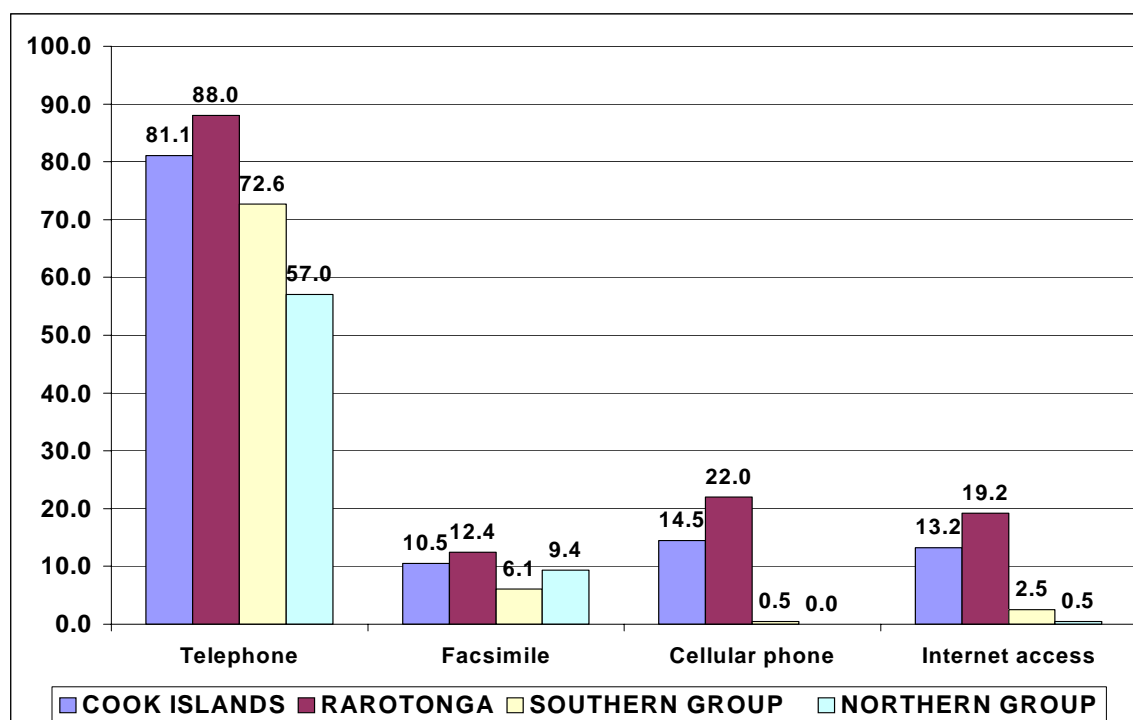
1.6.11 Safety equipment

Apart from the availability of emergency lighting, that was present in 81.6 per cent of all private households, safety equipment was mainly absent in Cook Islands households. Only 6.2 per cent have had a fire extinguisher, only 2.6 per cent a fire safety alarm, 27.5 per cent had a first aid kit, and 23.3 per cent a lantern.

1.6.12 Telecommunication

Telephones were with more than 80 per cent widely available in the Cook Islands private households, although this percentage was with 72.6 and 57 per cent much lower in the Southern and Northern Group islands respectively (Figure 25). Fax machines were available in every tenth household, and 14.5 per cent had a cellular phone. Internet access was installed in 13.2 per cent of all households, although almost all of these households were located in Rarotonga.

Figure 25: Privately occupied dwellings by region and telecommunication equipment (as percentage of all households)



2.6.13 Transport equipment

Table 23a shows the total count of transport equipment available to private households during the 2001 census. It needs to be noted that many households owned several vehicles/bicycles, and at the same time, some had none available. The census recorded 3,782 motorcycles, 1,365 motorcars, 309 vans, 546 trucks, 438 utility vehicles, and 2,268 bicycles. By far the most vehicles/bicycles were counted on Rarotonga. Especially motorcars and vans were rare on the Outer Islands.

Table 23a: Privately occupied dwellings by region and number of vehicles owned

Island & Region	Motor cycle	Motor car	Van	Truck	Utility vehicle	Bicycle
Rarotonga	2,371	1,267	274	440	364	1,456
Southern Group	1,121	94	33	91	72	593
Northern Group	290	4	2	15	2	219
COOK ISLANDS	3,782	1,365	309	546	438	2,268

Table 23b shows the percentage of households that own at least one type of vehicle. A motorcycle was owned by 68 per cent of all households, with the highest percentage in the Southern Group islands (74.4 per cent). A motorcar was owned by 31 per cent of all households, although most were in Rarotonga. The ownership of bicycles was fairly evenly distributed among the Islands/Regions of the Cook Islands; 35 per cent of all private occupied households owned a bicycle.

Table 23b: Privately occupied dwellings by region that owned any type of vehicle (as percentage of all households)

Island & Region	Motor cycle	Motor car	Van	Truck	Utility vehicle	Bicycle
Rarotonga	66.9	43.6	10.2	16.1	13.6	34.5
Southern Group	74.4	9.4	3.3	9.0	6.9	35.4
Northern Group	55.5	1.0	0.5	3.6	0.5	36.2
COOK ISLANDS	67.7	30.9	7.5	13.1	10.6	34.9

2.6.14 Agricultural activity

Almost two-third (65.6 per cent) of all households were involved in agricultural activities, although mainly for their own use (subsistence). This was just over half (54.2 per cent) of the Rarotongan households, and more than 85 per cent in the Outer Islands (Figure 26). Commercial agricultural activity was with 3.6 per cent of all households rare in the Cook Islands.

Figure 26: Privately occupied dwellings by region and agricultural activity (as percentage of all households)

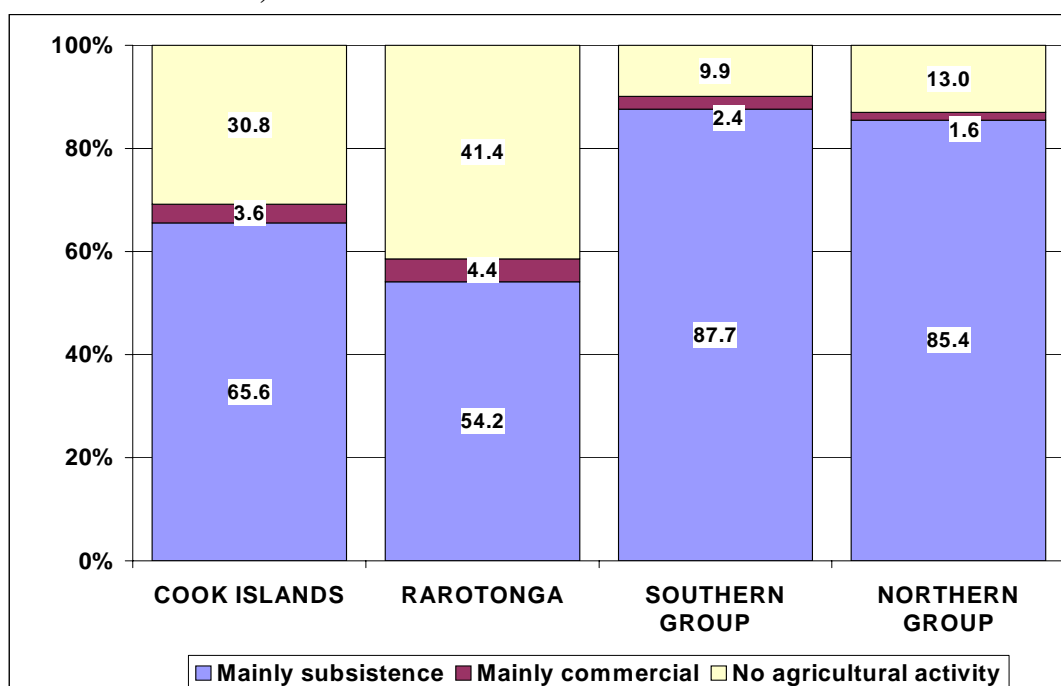


Table 24 shows the count of all farm machinery items and table 25 that of livestock available to private households during the 2001 census. It needs to be noted that many households owned several items of farm machinery, and at the same time, some had none available (1,532 households did not own any farm machinery).

Table 24: Privately occupied dwellings by region and number of farm machinery

Farm Machinery	Island & Region			
	COOK ISLANDS	Rarotonga	Southern Group	Northern Group
Tractor	208	179	29	0
Rotary hoe	251	215	36	0
Mist blower	130	117	11	2
Grass cutter	2,057	1,594	403	60
Motor mower	1,993	1,428	562	3
Disc	112	90	20	2
Plough	116	103	13	0
Tyne	25	24	1	0
Slasher	92	84	7	1
Knapsack	895	531	361	3
No machinery	1,532	904	304	324

Again, it needs to be mentioned that many households owned many animals, while others did not own any (838 households did not own any animals). In general farm machinery was mainly available in Rarotonga, while the number of livestock were relatively plentiful in the Southern Group islands.

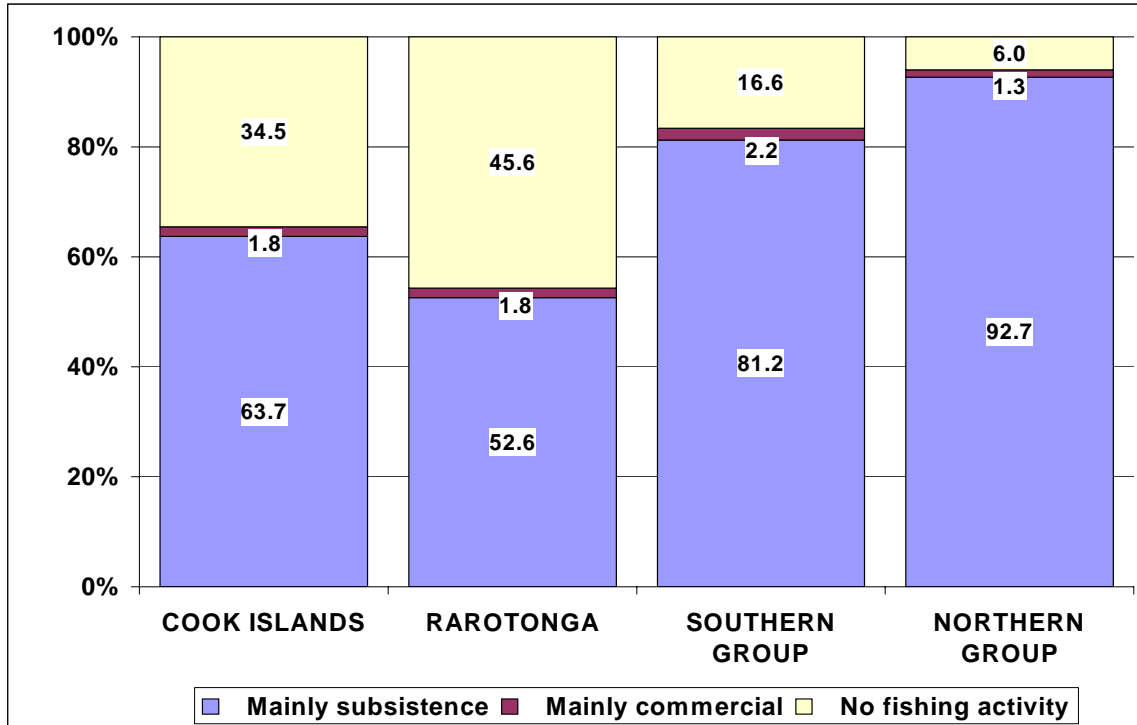
Table 25: Privately occupied dwellings by region and number of livestock

Livestock	Island & Region			
	COOK ISLANDS	Rarotonga	Southern Group	Northern Group
Pig	17,578	7,621	7,704	2,253
Goat	3,914	1,344	2,569	1
Cattle	383	214	169	0
Duck	411	223	179	9
Horse	109	84	25	0
Chicken	31,406	9,461	16,335	5,610
Cat	2,812	1,667	839	306
Dog	2,806	2,485	321	0
None	838	622	138	78

2.6.15 Fishing activity

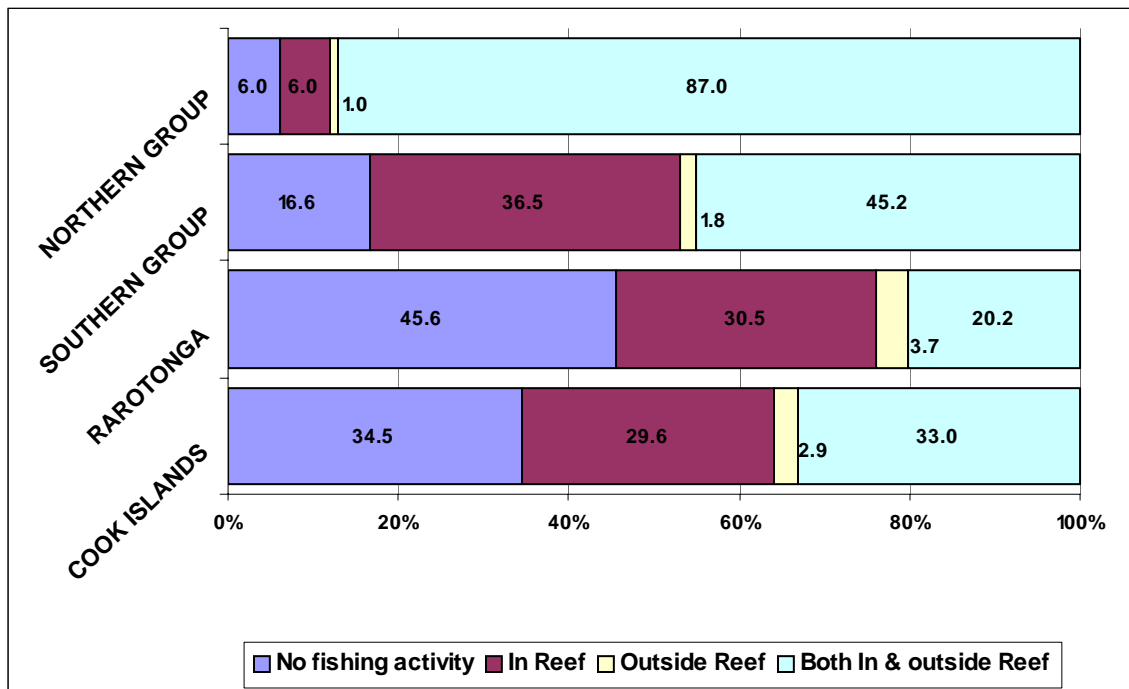
Almost 64 per cent of all households were involved in fishing activities, although mainly for their own use (subsistence). This was just over half (52.6 per cent) of the Rarotongan households, compared to 81 per cent and 93 per cent in the Southern and Northern Group islands respectively (Figure 27). Commercial fishing activity was with 1.8 per cent of all households very rare in the Cook Islands.

Figure 27: Privately occupied dwellings by region and engagement in fishing activities (as percentage of all households)



Of those households that were fishing, most fished both inside and outside the reef. However, fishing inside the reef was the preferred fishing location for Rarotongan households.

Figure 28: Privately occupied dwellings by region and location of fishing activities



Although the total count of most fishing equipments were either in the Southern Group islands or in Rarotonga (depending on the item), it was most predominant, relatively to the number of households in the Northern Group islands (Table 25).

Table 26: Privately occupied dwellings by region and number of fishing equipment

Fishing equipment	Island & Region			
	COOK ISLANDS	Rarotonga	Southern Group	Northern Group
Spear gun	1,359	607	438	314
Canoe	432	129	222	81
Boat	684	174	182	328
Fishing rod imported	1,828	839	785	204
Fishing rod local	3,748	1,077	1,519	1,152
Net	1,707	607	680	420
Scuba	259	103	19	137
Hookah	55	8	34	13
Outboard motor	701	163	217	321