

TUVALU 2002

Population and Housing Census Volume 1 – Analytical Report



Secretariat of the Pacific Community

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Secretariat of the Pacific Community

BP D5

98848 Noumea Cedex

New Caledonia

Tel: 687 26.20.00

Fax: 687 26.38.18

Email: spc@spc.int

<http://www.spc.int>

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Contents

Summary of main indicators	9
1 - Introduction	11
2 - Population structure	13
2.1 Population trend	13
2.2 Population composition.....	13
2.3 Population size, change, distribution and density	14
2.3.1 Total population	14
2.3.2 Resident population	15
2.4 Population by age and sex.....	17
3 - Social characteristics	21
3.1 Migration	21
3.1.1 Place of residence five years before the census	21
3.1.2 Place of birth	21
3.2 Ethnicity	22
3.3 Religious denomination	23
3.4 Marital status	24
4 - Educational characteristics	27
4.1 School enrolment.....	27
4.2 Highest primary or secondary school level completed.....	28
4.3 Educational qualification	29
5 - Economic characteristics	31
5.1 Activity status	31
5.2 Labour force	32
5.2.1 Subsistence	34
5.2.2 Occupation	36
5.2.3 Industry	37
5.2.4 Sector of employment	39
5.2.5 Hours worked per week.....	39
5.3 Non-labour force	40

6 - Health characteristics	41
6.1 Smoking.....	41
6.2 Drinking	41
7 - Household characteristics	43
7.1 Household size	43
7.2 Household composition.....	44
7.3 Household appliances and amenities.....	45
7.3.1 Type of kitchen.....	45
7.3.2 Principal cooking fuel	45
7.3.3 Means of generating electricity.....	46
7.3.4 Toilet facilities	47
7.3.5 Means of waste disposal.....	47
7.3.6 Household appliances	48
7.3.7 Transport equipment.....	50
7.4 Household activities	50
7.4.1 Agricultural activity	50
7.4.2 Keeping of livestock	51
7.4.3 Fishing activity	52
7.4.4 Handicraft activity	54
7.5 Household income	55
7.5.1 Main sources of household income	55
7.5.2 Remittances	56
8 - Housing characteristics	59
8.1 Housing tenure	59
8.2 Housing structure.....	60
8.2.1 Type of house	60
8.2.2 Age of building.....	60
8.2.3 Construction material	61
8.2.4 Floor size	62
8.2.5 Number of rooms	62
8.2.6 Source, supply and storage of water	63

Tables

Table 1	Total population size, change, distribution and density, by island, 1991–2002	15
Table 2	Resident population size, change, distribution and density, by island, 1991–2002	16
Table 3	Resident population by broad age groups, median age, dependency and sex ratio, 2002	18
Table 4	Resident population six years and older, by usual residence five years before the 2002 census (1997)	21
Table 5	Resident population, by place of birth	22
Table 6	Resident population, by ethnic origin	22
Table 7	Resident population six years and older, by sex, island/region and highest primary or secondary level completed (%)	28
Table 8	Activity status, by sex and island/region	31
Table 9	Resident population 15 years and older, by sex, island/region and labour force indicators	32
Table 10	Population engaged in fishing, agriculture or handicraft activities, by island/region and by sex	34
Table 11	Proportion of fishing, agriculture or handicraft activities to produce goods for sale, by island/region.....	35
Table 12	Proportion of resident population 15 years and older, smoking cigarettes and drinking alcohol	41
Table 13	Number of privately occupied households, by household size and persons per household	44
Table 14	Resident population by household composition (relationship to head of household)	45
Table 15	Households, by type of kitchen (percentage of all households).....	45
Table 16	Privately occupied dwellings, by main means of lighting (percentage of all households)	46
Table 17	Proportion of households, by island/region and availability of cooking appliances.....	49
Table 18	Proportion of households, by island/region and availability of household appliances.....	49

Table 19	Proportion of households, by island/region and availability of entertainment appliances	49
Table 20a	Households, by island/region and total number of vehicles owned	50
Table 20b	Households that owned at least one type of vehicle, by island/region (percentage of all households).....	50
Table 21	Households, by island/region and number of livestock	51
Table 22	Households, by island/region and type of fishing equipment	54
Table 23	Households, by island/region and type of handicraft items produced	55
Table 24	Source of remittances, by island/region (percentage of all remittance-receiving households)	57
Table 25	Frequency of remittances, by island/region (percentage of all remittance-receiving households)	57
Table 26	Number of occupied dwellings, by island and type of house	60
Table 27	Privately occupied dwellings, by island/region and type of building materials (percentage of all households).....	62
Table 28	Privately occupied dwellings, by island/region and number of rooms (percentage of all households)	63
Table 29	Households, by island/region and water storage capacity (percentage of all households).....	65

Figures

Figure 1 - Tuvalu total population from 1921 to 2002.....	13
Figure 2 - Population composition	14
Figure 3 - Tuvalu population pyramid, total population, 2002	17
Figure 4 - Funafuti population pyramid, total and resident population, 2002.....	19
Figure 5 - Outer Islands population pyramid, resident population, 2002	20
Figure 6 - Resident population, by ethnic origin	23
Figure 7 - Resident population, by religious denomination	23
Figure 8 - Resident population 15 years and older, by marital status	24
Figure 9 - Resident population 15 years and older, by sex and proportion married.....	25
Figure 10 - Resident population aged 6–29 years, by sex and school enrolment.....	27
Figure 11 - Resident population 15 years and older, by sex and secondary school completion	28
Figure 12 - Resident population 15 years and older, by sex and highest educational qualification gained.....	29
Figure 13 - Resident population 15 years and older, by island/region and highest educational qualification gained.....	30
Figure 14 - Resident population 15 years and older, by sex and activity status	32
Figure 15 - Resident population 15 years and older, by sex and proportion economically active	33
Figure 16 - Number of persons engaged in fishing, agriculture and handicraft production, by sex 5	35
Figure 17 - Number of persons engaged in fishing, agriculture and handicraft production, by island/region	36
Figure 18 - Resident population 15 years and older, by sex and occupation..	36
Figure 19 - Resident population 15 years and older, by sex and industry of employment (percentage distribution)	38
Figure 20 - Resident population 15 years and older, by sector of employment	39

Figure 21 - Proportion of resident population 15 years and older, smoking cigarettes	42
Figure 22 - Proportion of resident population 15 years and older, drinking alcohol	42
Figure 23 - Average household size, by total enumerated population and resident population	43
Figure 24 - Privately occupied dwellings, by region and principal cooking fuel (percentage of all households)	46
Figure 25 - Privately occupied dwellings, by island/region and type of toilet facilities (percentage of all households).....	47
Figure 26 - Privately occupied dwellings, by island/region and waste disposal method (percentage of all households)	48
Figure 27 - Households, by island and agricultural activity (percentage of all households)	51
Figure 28 - Households, by island and fishing activity (percentage of all households)	52
Figure 29 - Households, by island/region and location of fishing activities (percentage of all households)	53
Figure 30 - Households, by island and handicraft activity (percentage of all households).....	54
Figure 31 - Households, by island/region and main source of income (percentage of all households)	56
Figure 32 - Households receiving remittances, by island (percentage of all households).....	56
Figure 33 - Privately occupied dwellings, by island/region and house tenure (percentage of all households).....	59
Figure 34 - Privately occupied dwellings, by island/region and age of building (percentage of all households)	61
Figure 35 - Privately occupied dwellings, by region and source of water (percentage of all households)	64
Figure 36 - Privately occupied dwellings, by region and supply of water (percentage of all households)	64

Summary of main indicators

	Total	Males	Females
Total enumerated population	9,561	4,729	4,832
Urban population (Funafuti)	4,492	2,281	2,211
Rural population (Outer Islands)	5,069	2,448	2,621
Resident population	9,359	4,614	4,745
Urban population (Funafuti)	3,962	1,994	1,968
Rural population (Outer Islands)	5,397	2,620	2,777
Median age (years)			
Total resident population	23.6	20.8	26.4
Resident urban population (Funafuti)	23.6	22.6	24.6
Resident rural population (Outer Islands)	23.5	19.2	28.1
Resident population structure	Persons	%	
Population younger than 15 years	3,405	36.4	
Population 15–59 years	5,144	55.0	
Population 60+ years	810	8.6	
Sex ratio (males per 100 females)	97		
Dependency ratio (15–59)	82		
Average annual rate of growth (1991–2002)			
Total population	0.5%		
Resident population	0.6%		
Urban population (Funafuti)	0.9%		
Rural population (Outer Islands)	0.4%		
Population density (persons per sq km)			
Total population	373		
Urban population (Funafuti)	1,610		
Rural population (Outer Islands)	222		
Resident population	365		
Proportion urban (Funafuti)	47%		
Total number of households	1,579		
Number of private households	1,568		
Urban (Funafuti)	639		
Rural (Outer Islands)	929		
Average household size (persons per household)	6.0		
Urban (Funafuti)	6.2		
Rural (Outer Islands)	5.8		

Main source of household income	Tuvalu	Urban	Rural
No income	6.2	3.0	8.4
Wages	59.1	76.5	47.1
Own business	5.4	7.8	3.7
Sale of fish/handicrafts/hawker/copra	9.1	4.2	12.4
Remittances	18.1	7.0	25.7
Other	2.2	1.4	2.7
Educational characteristics (Resident population 15 years +)	Total	Males	Females
Educational attainment			
No education (%)	22.5	17.8	26.7
Primary (%)	55.1	58.1	52.4
Secondary (%)	14.3	14.7	13.9
Tertiary (%)	8.1	9.4	7.0
School enrolment rate (% of persons aged 5–15 years attending)	96.7	95.3	98.4
Economic activity (15 years and older)	Total	Males	Females
Total resident population			
Labour force participation rate (%)	58.2	69.6	47.9
Employment–population ratio (%)	33.2	44.9	22.7
Unemployment rate (%)	6.5	4.9	8.6
Urban population (Funafuti)			
Labour force participation rate (%)	61.0	70.4	51.8
Employment–population ratio (%)	49.6	61.0	38.4
Unemployment rate (%)	8.9	6.6	12.0
Rural population (Outer Islands)			
Labour force participation rate (%)	56.0	68.9	45.2
Employment–population ratio (%)	20.9	31.7	11.8
Unemployment rate (%)	4.6	3.6	5.9

1 - Introduction

This report presents the main findings and an analysis of demographic, socio-economic, household and housing information collected in the 2002 Population and Housing Census of Tuvalu. It is based on the tables presented in an additional document titled «Tuvalu 2002 Population and Housing Census — Administrative report and Basic Tables» that is distributed by the Tuvalu Statistics Office on request.

The report refers to population size, composition, structure and distribution. It also covers social, health, educational, economic, household and housing characteristics.

The 2002 census enumerated the de facto population, which is the population enumerated at a particular place at census night. It includes visitors, but excludes people temporarily absent from Tuvalu.

All information was collected during an enumeration period of one week (from 18 to 22 November 2002), and the night of 17 November 2002 was designated census night for all households on Tuvalu.

The resident population — those who usually live in Tuvalu — forms the basis for most of the census tabulations, because it is the resident population that planners and policy-makers mainly have to take into account.

At the front of this report is a table summarising the main findings and indicators of the census. The remaining sections of the report cover major demographic, socio-economic and housing characteristic of Tuvalu, its capital island Funafuti, and the Outer Islands. Where possible, information is presented separately for males and females, and some comparisons are made to the findings of the 1991 census.

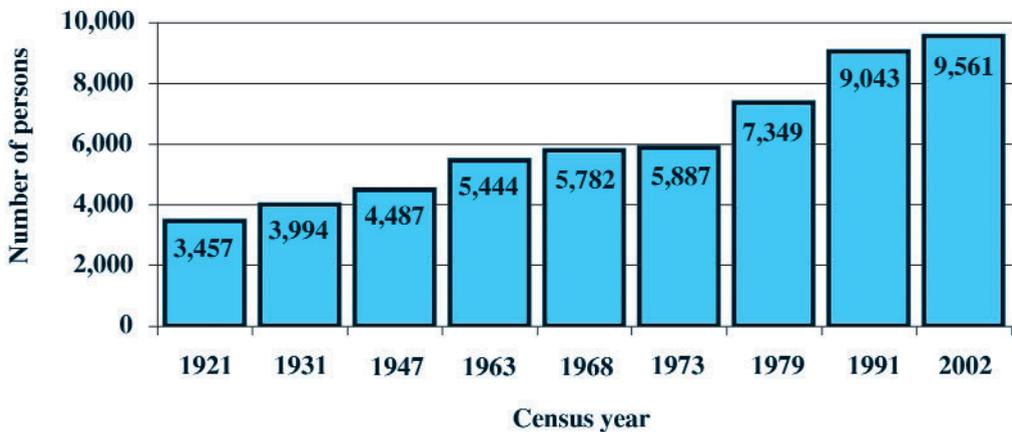
2 - Population structure

2.1 Population trend

The total population of Tuvalu enumerated on 17 November 2002 was 9,561 people: 4,729 males and 4,832 females. As the 2002 census was a de facto count, this number included all residents and visitors present at census night in Tuvalu, and excluded residents away from Tuvalu at the time of the census (even if they intended to be away only for a short time). This population count was an increase of 518 people over the 1991 census count of 9,043.

Figure 1 shows the population of Tuvalu from 1921 to 2002. The population increased continuously from the beginning of the twentieth century, reaching its greatest size in 2002, with 9,561 people.

Figure 1 - Tuvalu total population from 1921 to 2002

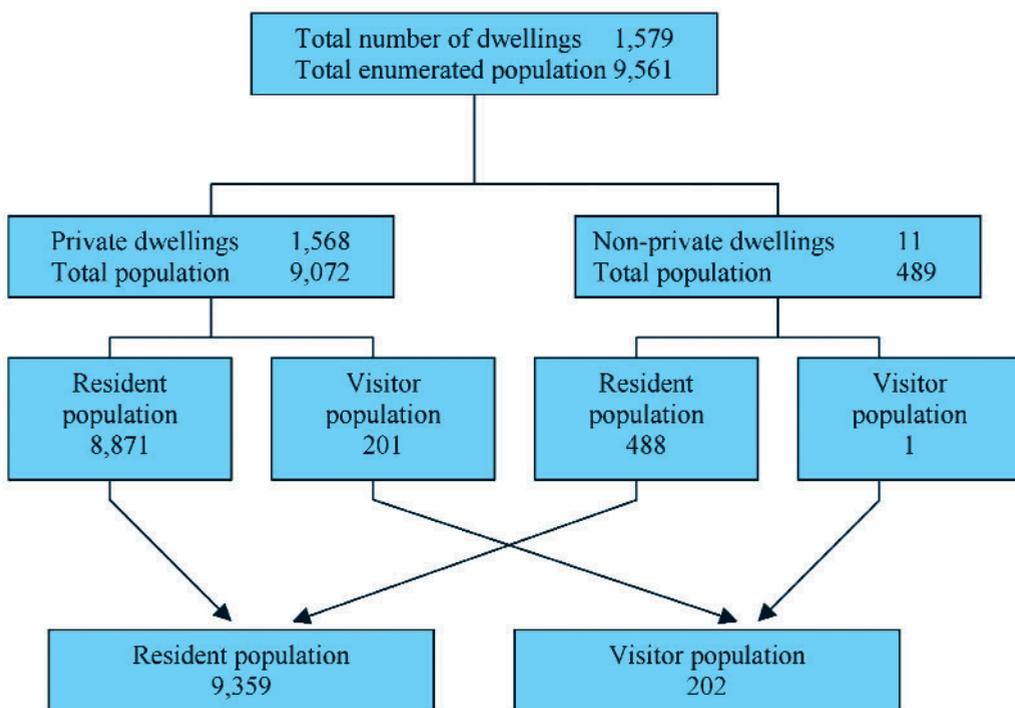


2.2 Population composition

The total enumerated population of 9,561 included 9,359 permanent residents and 202 visitors (non-residents). Nine residents who were imprisoned at the time of the census were excluded. Figure 2 shows the distribution of the total population, including permanent residents and non-residents, among the private and non-private dwellings (institutions) counted during the 2002 census. Three

institutions are not included in the census household count: the hospital, the Vaiaku Lagi Hotel in Funafuti and the prison. The patients of the hospital, however, completed their personal questionnaires and were included in their respective private households. Approximately 10 hotel guests, probably non-residents, were not included in the census count.

Figure 2 - Population composition



2.3 Population size, change, distribution and density

2.3.1 Total population

The total population in Tuvalu (including short-term visitors, tourists and temporary contract workers) increased by 5.7% (518) during the intercensal period 1991–2002 (Table 1).

The population density also increased during the intercensal period (from 353 to 373 people per square kilometre), but varied widely from island to island. While Funafuti had 1,610 people per square kilometre, Niulakita had only 83 per square kilometre. The average population density of the Outer Islands was 222 people per square kilometre.

Table 1 - Total population size, change, distribution and density, by island, 1991–2002

Island	Area (km ²)	Total population		Population change (1991–2002)			Population distribution (%)	Density (persons per km ²)
		1991	2002	Total	%	r ^a	2002	
Funafuti	2.79	3,839	4,492	653	17.0	1.4	47.0	1,610
Outer Islands	22.84	5,204	5,069	-135	-2.6	-0.2	53.0	222
Nanumea	3.87	824	664	-160	-19.4	-2.0	6.9	172
Nanumaga	2.78	644	589	-55	-8.5	-0.8	6.2	212
Niutao	2.53	749	663	-86	-11.5	-1.1	6.9	262
Nui	2.83	606	548	-58	-9.6	-0.9	5.7	194
Vaitupu	5.60	1,202	1,591	389	32.4	2.5	16.6	284
Nukufetau	2.99	751	586	-165	-22.0	-2.3	6.1	196
Nukulaelae	1.82	353	393	40	11.3	1.0	4.1	216
Niulakita	0.42	75	35	-40	-53.3	-6.9	0.4	83
Tuvalu	25.6	9,043	9,561	518	5.7	0.5	100.0	373

a Average annual rate of growth (%)

During the census enumeration, the majority (53%) of the total population was in the Outer Islands, and the remainder was in Funafuti. Apart from Vaitupu, where one of every six Tuvaluans was present during the census count, each of the other Outer Islands had a share of less than 7% of the total population.

While the total population of Funafuti increased by 653 during the intercensal period, that of the Outer Islands decreased by 135. The only Outer Islands that showed an increase in population were Vaitupu (+389) and Nukulaelae (+40).

2.3.2 Resident population

The resident population increased from the previous census in 1991, rising from 8,750 usual residents living in Tuvalu in 1991, to 9,359 in 2002 (Table 2). This increase of 7% during the intercensal period equates to an average annual rate of growth of 0.6%. The resident population of Funafuti increased by 10.8% during this period — from 3,576 people in 1991 to 3,962 in 2002.

Table 2 - Resident population size, change, distribution and density, by island, 1991–2002

Island	Area (km ²)	Total population		Population change (1991–2002)			Population distribution (%)	Density (persons per km ²)
		1991	2002	Total	%	r ^a	2002	
Funafuti	2.79	3,576	3,962	386	10.8	0.9	42.3	1,420
Outer Islands	22.84	5,174	5,397	223	4.3	0.4	57.7	236
Nanumea	3.87	817	855	38	4.7	0.4	9.1	221
Nanumaga	2.78	644	710	66	10.2	0.9	7.6	255
Niutao	2.53	748	817	69	9.2	0.8	8.7	323
Nui	2.83	605	610	5	0.8	0.1	6.5	216
Vaitupu	5.60	1,196	1,310	114	9.5	0.8	14.0	234
Nukufetau	2.99	740	701	-39	-5.3	-0.5	7.5	234
Nukulaelae	1.82	349	392	43	12.3	1.1	4.2	215
Niulakita	0.42	75	2	-73	-97.3	-32.9	0.0	5
Tuvalu	25.6	8,750	9,359	609	7.0	0.6	100.0	365

^a Average annual rate of growth (%)

The resident population of the Outer Islands increased by 4.3% — less than the population of Funafuti, which increased during the intercensal period by 223 (from 5,174 to 5,397).

The populations of four Outer Islands (Nukulaelae, Nanumaga, Vaitupu and Niutao) increased by more than the national average; whereas the populations of three islands (Nui, Nukufetau, and Niulakita) showed either minimal growth or even a decline.

A comparison of the population distribution of the resident population (Table 2) with that of the total enumerated population (Table 1) shows that the resident proportion of the population of the Outer Islands was higher, and that of Funafuti was lower, than the total enumerated population. There are two reasons for this difference. First, most of the 202 non-resident visitors to Tuvalu were in Funafuti during the census, and are included in the total population count. Second, some people who usually live in the Outer Islands were temporarily living in Funafuti during the census.

The difference between the numbers and proportion of the resident population in Vaitupu shown in Table 1 and in Table 2 can be explained by the location on that island of Tuvalu's only secondary school. Many students who usually live on other islands were in Vaitupu during the census count.

2.4 Population by age and sex

In 2002, the resident population consisted of 4,614 males and 4,745 females, a surplus of 131 females. This resulted in a sex ratio of 97, which means that there were 97 men for every 100 women.

Figure 3 - Tuvalu population pyramid, total population, 2002

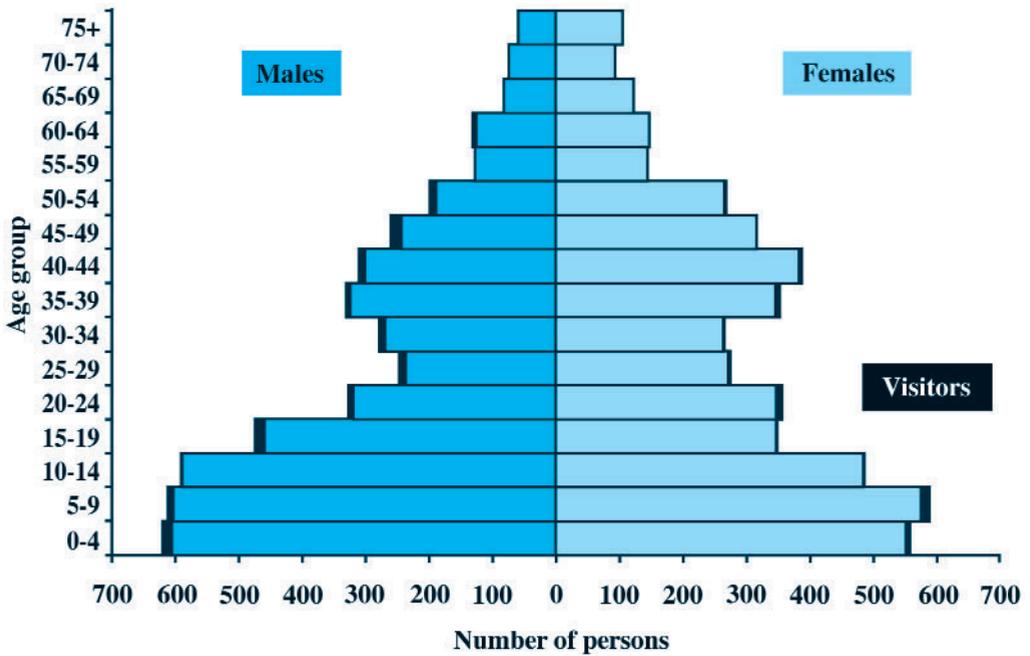


Figure 3 shows the number of males and females in five-year age groups, with the youngest age group at the bottom of the pyramid. The number of males is shown on the left and the number of females on the right.

A distinct feature of the pyramid is the indent of the 15–34-year age groups, meaning that these age groups are much smaller than younger and older groups — a sign of out-migration by youth. The slight narrowing of the population bar of the 0–4-year-olds compared to the 5–9-year-olds points to a possible decline in fertility (a reduction of the number of annual births) in recent years.

Slightly more than 36% of the resident population were younger than 15 years, and almost 9% were older than 60 years (Table 3). The proportion of the population aged 15 to 59 was 55%.

The median age of Tuvalu's resident population decreased from 25.1 years in 1991 to 23.6 years in 2002 (i.e. in 2002, half of the resident population was younger and the other half older than 23.6 years). The median age of females was almost six years higher (26.4 years) than that of males (20.8 years).

The median age of the total resident population of Funafuti and the Outer Islands was almost identical. However, behind the combined median age of males and females lie considerable differences between males and females, and also between the different islands.

Table 3 - Resident population by broad age groups, median age, dependency and sex ratio, 2002

Island	Broad age groups (%)			Dependency ratio ^a	Sex ratio	Median age		
	0-14	15-59	60+			Total	Male	Female
Funafuti	35.5	58.2	6.3	71.7	101.3	23.6	22.6	24.6
Outer Islands	37.0	52.6	10.4	90.2	94.3	23.5	19.2	28.1
Nanumea	37.7	51.9	10.4	92.6	86.7	22.1	18.7	25.9
Nanumaga	37.6	53.0	9.4	88.8	93.5	22.5	18.5	27.1
Niutao	34.9	52.8	12.4	89.6	97.3	25.3	19.6	30.8
Nui	34.6	55.2	10.2	81.0	87.7	25.8	23.3	27.6
Vaitupu	37.1	53.7	9.2	86.3	100.6	24.1	19.6	28.7
Nukufetau	40.9	49.2	9.8	103.2	100.3	21.2	16.4	29.1
Nukulaelae	35.7	51.0	13.3	96.0	86.7	24.7	24.6	24.8
Niulakita ^b	50.0	50.0	0.0	100.0		7.5	7.5	-
Tuvalu	36.4	55.0	8.7	81.9	97.2	23.6	20.8	26.4

a Dependency ratio: ratio of the young (0-14) plus the old (60+), to the population of working age (15-59).

b Niulakita recorded only two residents: one baby boy and one boy aged 16 years.

The median age of males in the Outer Islands was almost nine years less than that of females. The median age of the total population of Nui was, at 25.8, considerably higher than of Nukufetau (21.2 years, with a male median age of only 16.4 years). At 30.8 years, the median age of females in Niutao was the highest of all islands.

A common way to describe a population's age structure is via the *dependency ratio*, which describes the economically dependent component of a country's population as a proportion of its productive component. This is conventionally

expressed as the ratio of the young (0–14) plus the old (60+), to the population of working age (15–59).

The dependency ratio of the resident population of Tuvalu in 2002 was 82. This means that, for every 100 persons of working age, there were 82 persons in the dependent age groups. The dependency ratio has increased since the 1991 census, when it was only 80.

The age structure of the Outer Islands was distinctively different from that of Funafuti (Figures 4 and 5). The proportion of children aged 0–14 years was considerably higher in the Outer Islands, as was the proportion of the population 60 years and older, whereas the proportion of working age population (15–59 years) was smaller. As a result, the dependency ratios of the Outer Islands were considerably higher than those of Funafuti.

The population pyramid of the Outer Islands is characterised by an extremely wide base (the proportion of children aged 0–14 years), and by extreme narrow bars at ages 20–34 years — the main age groups of emigrants. Also, 6% more females than males were counted in the Outer Islands, resulting in a wider right (female) side of the pyramid.

Figure 4 - Funafuti population pyramid, total and resident population, 2002

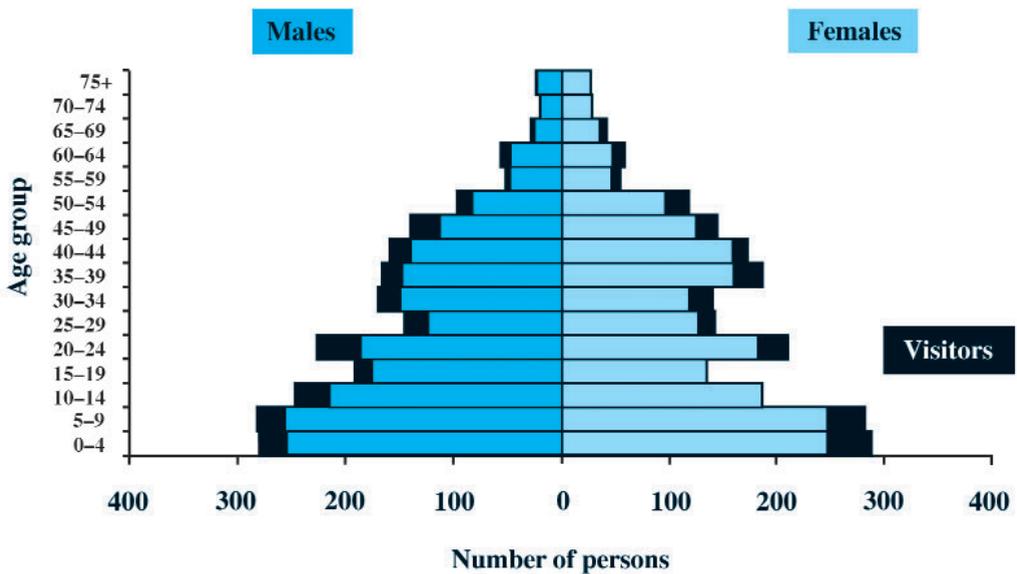
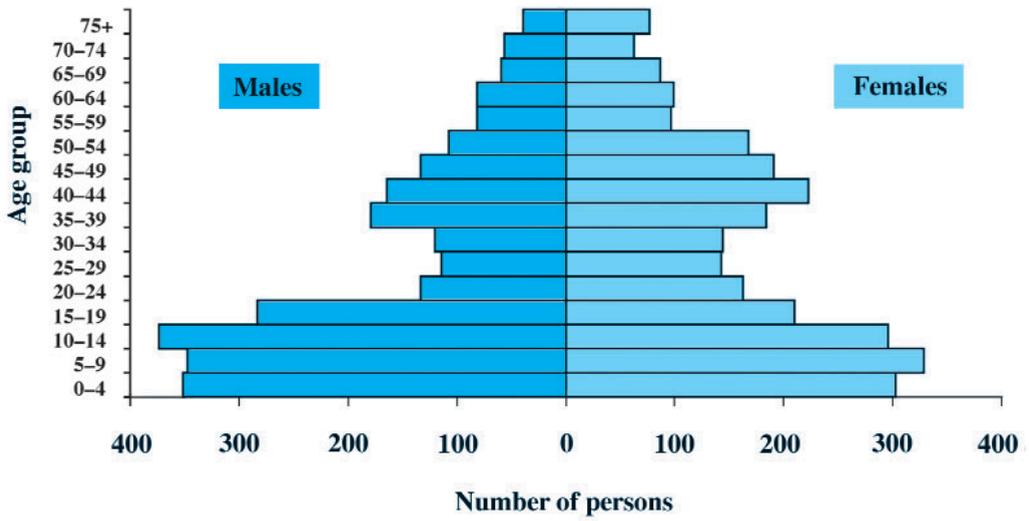


Figure 5 - Outer Islands population pyramid, resident population, 2002



3 - Social characteristics

3.1 Migration

3.1.1 Place of residence five years before the census

When asked where they had lived five years before the 2002 census, 73% (5,836) of the resident population six years and older (7,978 persons) answered that they had lived at their current (November 2002) place of residence; 13.7% (1,095) said that they had lived elsewhere in Tuvalu, and 1,047 (13.1%) answered that their usual place of residence had been overseas (Table 4). Almost one out of five Funafuti residents (19.5%) lived overseas five years before the census.

During the five-year period before the census, Funafuti's population had a slight net gain of 69 people from the Outer Islands (i.e. 473 people from the Outer Islands moved to Funafuti, but only 404 people from Funafuti moved to the Outer Islands).

Table 4 - Resident population six years and older, by usual residence five years before the 2002 census (1997)

Usual residential address at time of census		Usual residential address five years ago			
		Same island	Funafuti	Other Outer Island	Overseas
Funafuti	3,357	-	2,228	473	656
Outer Islands	4,621	3,608	404	218	391
Tuvalu	7,978	3,608	2,632	691	1,047
Percentage	100.0	73.2	13.7		13.1

3.1.2 Place of birth

More than one-quarter (27.1%) of all Tuvalu residents were born in Funafuti, 52.6% in the Outer Islands and 20.2% overseas.

Of the resident population, half were living on the same island where they were born, and 30% were born in Tuvalu, but not at their current (November 2002) place of residence (Table 5).

Table 5 - Resident population, by place of birth

Usual residential address at time of census		Place of birth			
		Funafuti	Same Island	Other Outer Island	Overseas
Funafuti	3,962	1,550	-	1,335	1,077
Outer Islands	5,397	990	3,120	472	815
Tuvalu	9,359	2,540	3,120	1,807	1,892
Percentage	100.0	27.1	52.7		20.2

Only 39% of Funafuti's residents were born in Funafuti, one-third were born elsewhere in Tuvalu, and more than a quarter were born overseas.

Two out of three residents of the Outer Islands were born in the Outer Islands, 15% were born overseas, and 18% were born in Funafuti.

3.2 Ethnicity

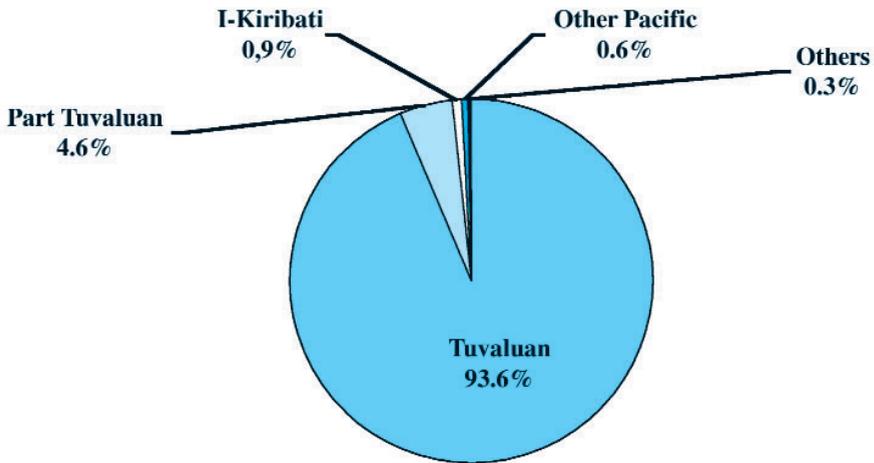
The population of Tuvalu is very homogeneous, with almost 94% being of Tuvaluan descent and another 4.6% being of part-Tuvaluan descent (Table 6 and Figure 6). Only 168 persons, or 1.8%, were of foreign descent; they were mainly I-Kiribati or other Pacific Islanders.

Table 6 - Resident population, by ethnic origin

Island/region	Ethnic origin					
	Total	Tuvaluan	Part-Tuvaluan	I-Kiribati	Other Pacific	Others
Funafuti	3,962	3,519	334	45	45	19
Outer Islands	5,397	5,237	101	39	12	8
Tuvalu	9,359	8,756	435	84	57	27

Only 1% of the Outer Islands population was of foreign descent; however, in Funafuti, the proportion was 2.7%.

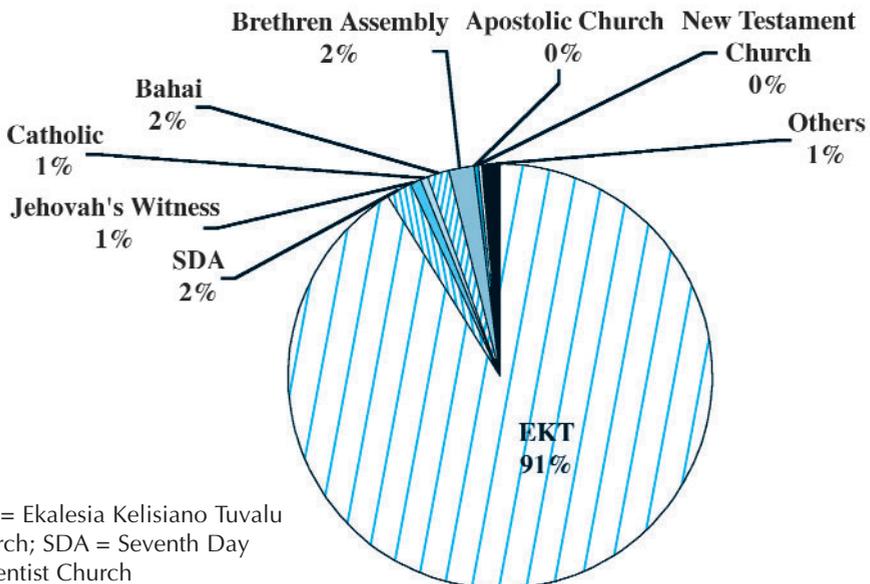
Figure 6 - Resident population, by ethnic origin



3.3 Religious denomination

With 8,521 persons (91% of the population) affiliated to it, the Ekalesia Kelisiano Tuvalu Church was the dominant religious denomination in Tuvalu (Figure 7). The next largest group was the Seventh Day Adventist Church, with 183 members or 2% of all denominations, followed by the Bahai Church with 177 members, and the Brethren Assembly with 166 members. All other denominations had fewer than 1% of the resident population as members.

Figure 7 - Resident population, by religious denomination



EKT = Ekalesia Kelisiano Tuvalu Church; SDA = Seventh Day Adventist Church

3.4 Marital status

At the time of the 2002 census, 61% of the resident males (1,725) and females (1,926) in the 15 years and older age group were married (Figure 8). The difference of 201 can be explained by the fact that some male spouses were temporarily absent during the census enumeration, and therefore were not included in the census. These men were working as seamen, or as contract workers overseas.

Thirty-three per cent of males (940) and 24% of females (740) had never married. Three per cent of males (77) and 11% of females (351) were widowed. Nearly 17% of males 60 years and older were widowed, compared to 46% of all females. About 3% of males and 4% of females were separated or divorced.

Figure 8 - Resident population 15 years and older, by marital status

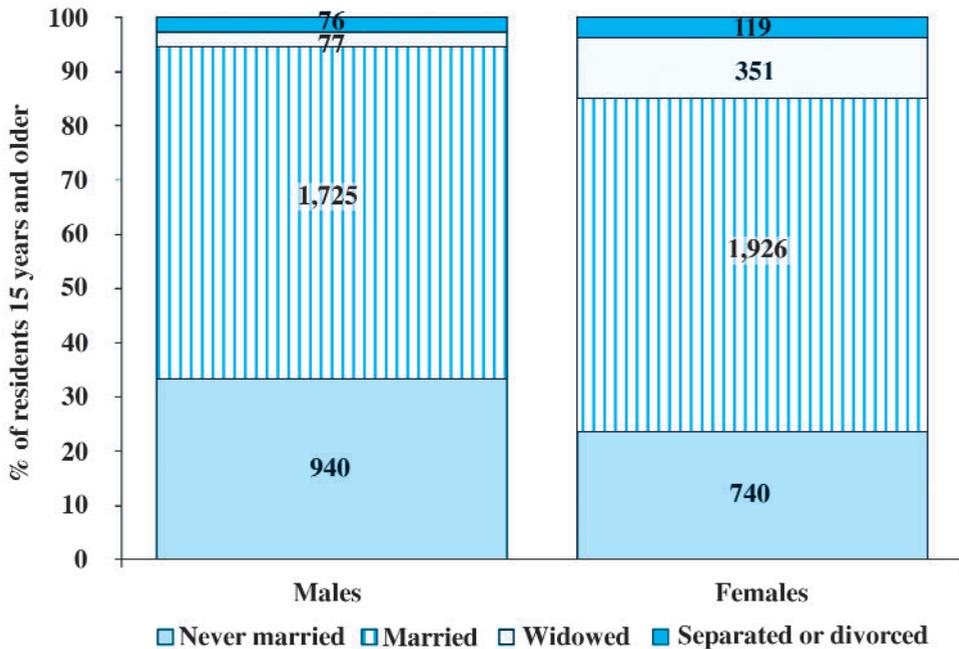
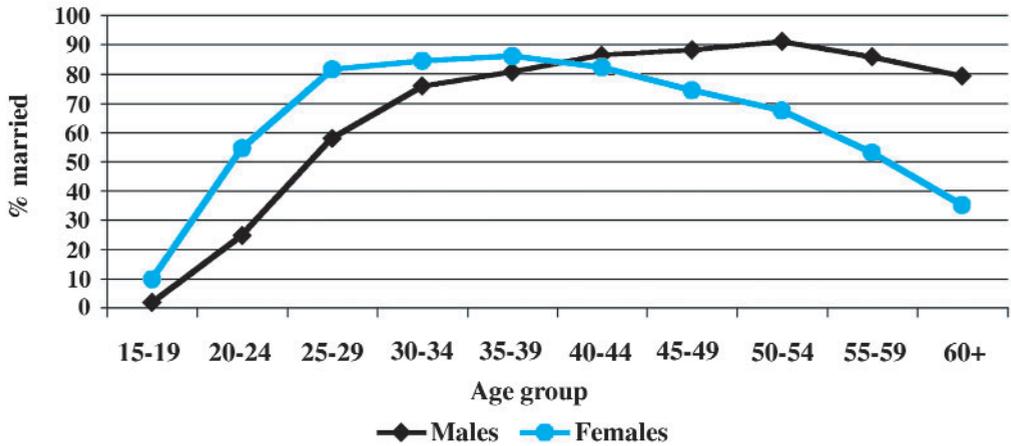


Figure 9 - Resident population 15 years and older, by sex and proportion married



Women marry at younger ages than men. The average ages at marriage were 26.5 and 20.7 years for males and females respectively (based on the proportion never married, by age¹).

The higher proportion of young women who were married, compared to men of the same age, is a further indication that women generally marry at younger ages than men (Figure 9). Only 24.8% of males were married at 20–24 years of age, whereas more than half (54.5%) of women at that age were already married. Similarly, only 58% of males were married at age 25–29 years, whereas 81.5% of females were.

¹ United Nations. 1983. The singulate mean age at marriage (SMAM). In: Manual X: indirect techniques for demographic estimation. New York. 225–229.

4 - Educational characteristics

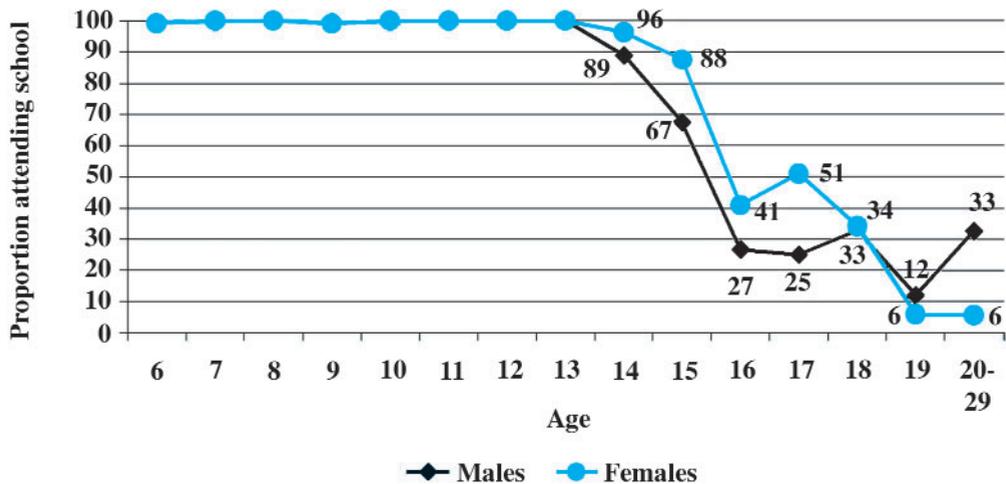
4.1 School enrolment

Education in Tuvalu is free and compulsory from the 6 to 15 years of age. This has ensured access to primary and secondary levels of education for all.

At the 2002 census, 2,428 persons from 6 to 29 years of age were enrolled in school (1,272 males and 1,156 females).

When asked whether they were currently attending school, nearly all (99.9%) of the 6–13-year-olds answered that they were (Figure 10). From the age of 14 onward, enrolment rates declined.

Figure 10 - Resident population aged 6–29 years, by sex and school enrolment



The proportions of 14-year-olds attending school were 89% and 96% for boys and girls, respectively. Enrolment rates declined after the age of 14, when more and more students dropped out of school, and the proportion of enrolled males decreased faster than that of females. At age 15, 88% of females still attended school, whereas only 67% of males did. At 16, the proportions were 27% and 41% of males and females, respectively.

However, from age 19 onwards, more males than females were enrolled, probably because males attend the Maritime Training Institute in Funafuti.

4.2 Highest primary or secondary school level completed

Less than 1% of the resident population six years and older had no schooling (Table 7). Fifty-three per cent of males and 49% of females had completed primary school, and almost 38% of males and 33% of females had completed secondary school.

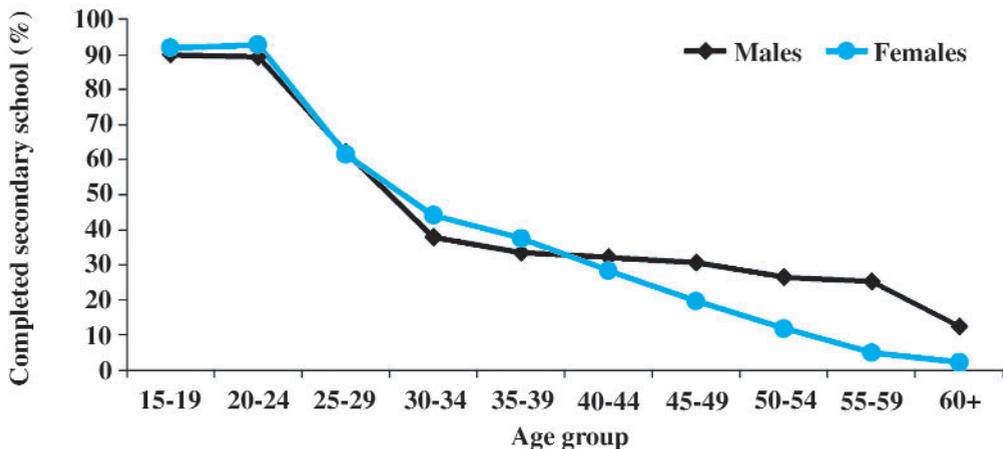
The proportion of people who had completed secondary level was considerably higher in Funafuti than in the Outer Islands. While 46% of males and 42% of females had completed secondary school in Funafuti, these proportions were only 31% and 26%, respectively, in the Outer Islands.

A higher percentage of males than females had completed secondary levels, both in Funafuti and the Outer Islands. However, examination of the data by age group shows that the proportion of females who had completed secondary school was higher than for males at ages 15 to 24 (Figure 11).

Table 7 - Resident population six years and older, by sex, island/region and highest primary or secondary level completed (%)

Highest level completed	Tuvalu		Funafuti		Outer Islands	
	Males	Females	Males	Females	Males	Females
No grade completed	0.8	0.9	1.0	0.9	0.6	0.9
Old mission school	8.4	16.9	4.3	10.9	11.5	21.0
Primary school	53.0	49.1	48.5	45.4	56.4	51.7
Secondary school	37.8	33.0	46.1	42.7	31.4	26.3
Other	0.0	0.0	0.1	0.1	0.0	0.0

Figure 11 - Resident population 15 years and older, by sex and secondary school completion



4.3 Educational qualification

Of the resident population, 17.8% of males and 26.7% of females had no educational qualification (Figure 12). The older the person, the more likely it was that they had no educational qualification (rising to 78.5% of males and 93.1% of females aged more than 65 years).

Almost 14.7% of males and 13.9% of females had secondary qualifications, and 9.4% of males and 7.0% females had tertiary qualifications.

The proportion of people in the Outer Islands with no qualifications was 27.4% — much higher than in Funafuti (15.9%). In Funafuti, the proportion of people with secondary and tertiary education was more than twice that in the Outer Islands (Figure 13).

Asked whether they had undertaken studies or training other than primary or secondary school, 621 people (10.4%) out of 5,954 persons 15 years and older answered that they had, and 5,333 that they had not yet done so.

Generally, males were more likely to have undertaken further studies than females, because males have the opportunity to attend the Maritime Training Institute in Funafuti. Of males, 12.2% continued their studies, but only 8.8% of females did so.

Figure 12 - Resident population 15 years and older, by sex and highest educational qualification gained

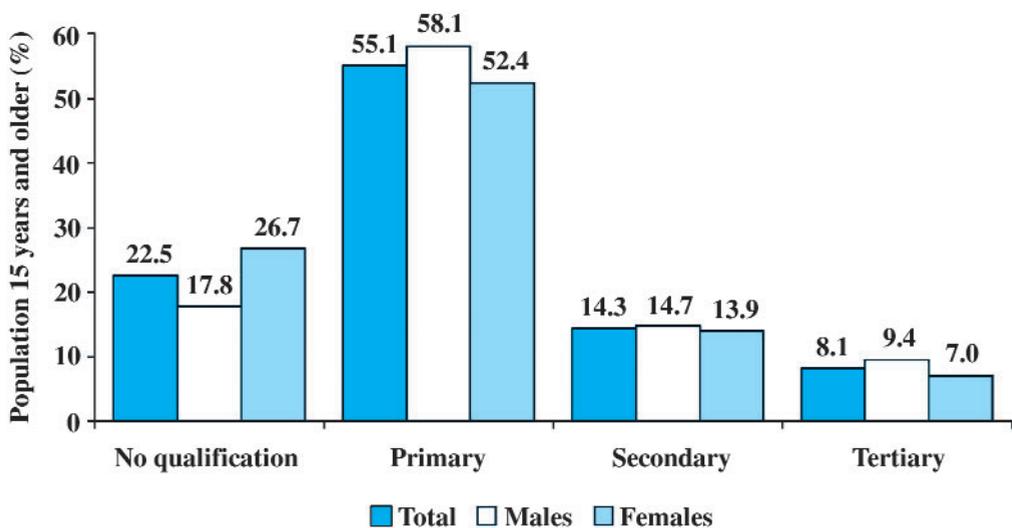
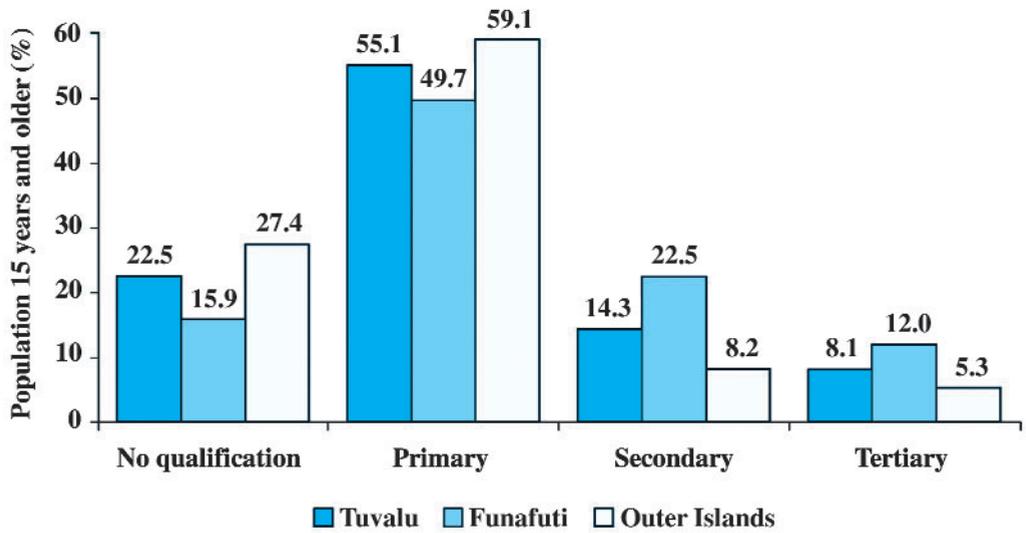


Figure 13 - Resident population 15 years and older, by island/region and highest educational qualification gained



5 - Economic characteristics

5.1 Activity status

Of 5,954 residents 15 years and older in the 2002 census, 58.2% (3,463) were economically active and part of the labour force (Table 8 and Figure 14). Economically active persons included those who were formally employed, people who did other paid or unpaid work during the week before the census (such as fishing, agriculture, handicraft making), and those who were unemployed but were actively looking for work.

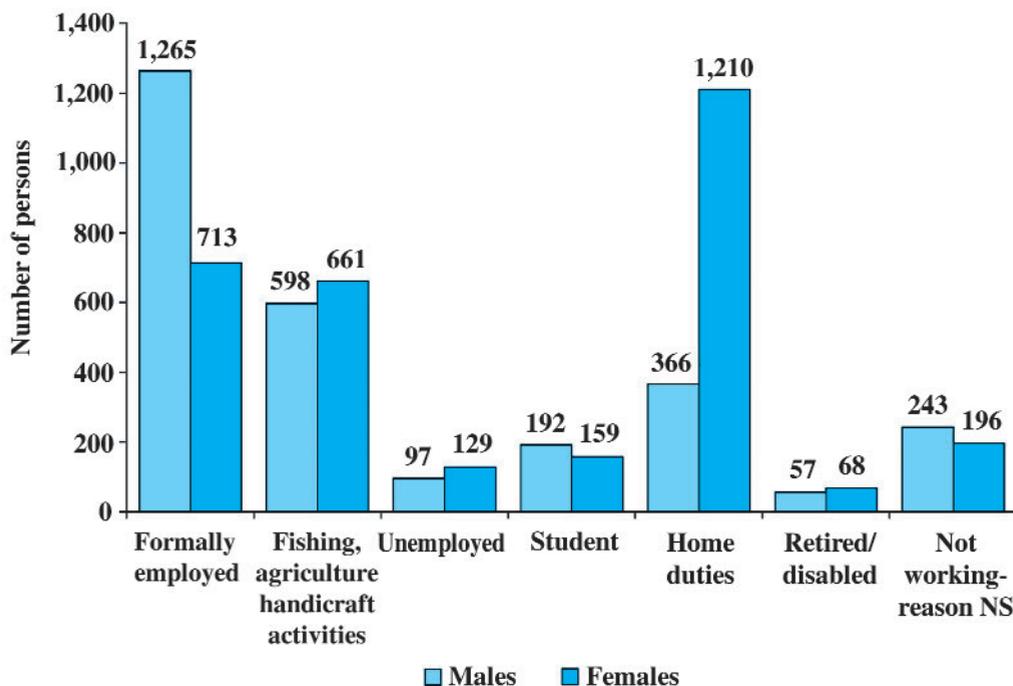
More than half (57%) of the labour force were males. Of the labour force, 6.5% (97 males and 129 females) were unemployed.

The rest of the population 15 years and older (2,491 people) were not economically active. These included students, and people who were retired, disabled or engaged in full-time home duties.

Table 8 - Activity status, by sex and island/region

Island/ Region	Labour force – Economically active				Non labour force/Not economically active					Total population 15 years and older
	Working		Un- employed	Total	Student	Home duties	Retired/ disabled	Other reason	Total	
	Formally employed	Fishing, agriculture handicraft								
Males										
Funafuti	774	60	59	893	68	161	20	127	376	1,269
Outer Islands	491	538	38	1,067	124	205	37	116	482	1,549
Tuvalu	1,265	598	97	1,960	192	366	57	243	858	2,818
Females										
Funafuti	494	93	80	667	51	453	22	94	620	1,287
Outer Islands	219	568	49	836	108	757	46	102	1,013	1,849
Tuvalu	713	661	129	1,503	159	1,210	68	196	1,633	3,136
Total										
Funafuti	1,268	153	139	1,560	119	614	42	221	996	2,556
Outer Islands	710	1,106	87	1,903	232	962	83	218	1,495	3,398
Tuvalu	1,978	1,259	226	3,463	351	1,576	125	439	2,491	5,954

Figure 14 - Resident population 15 years and older, by sex and activity status



5.2 Labour force

The labour force indicators in general were more positive in Funafuti than in the Outer Islands (Table 9); however, the unemployment rates were lower in the Outer Islands than in Funafuti.

Table 9 - Resident population 15 years and older, by sex, island/region and labour force indicators

Island/region	Labour force participation rate			Employment–population ratio			Unemployment rate		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Funafuti	61.0	70.4	51.8	49.6	61.0	38.4	8.9	6.6	12.0
Outer Islands	56.0	68.9	45.2	20.9	31.7	11.8	4.6	3.6	5.9
Tuvalu	58.2	69.6	47.9	33.2	44.9	22.7	6.5	4.9	8.6

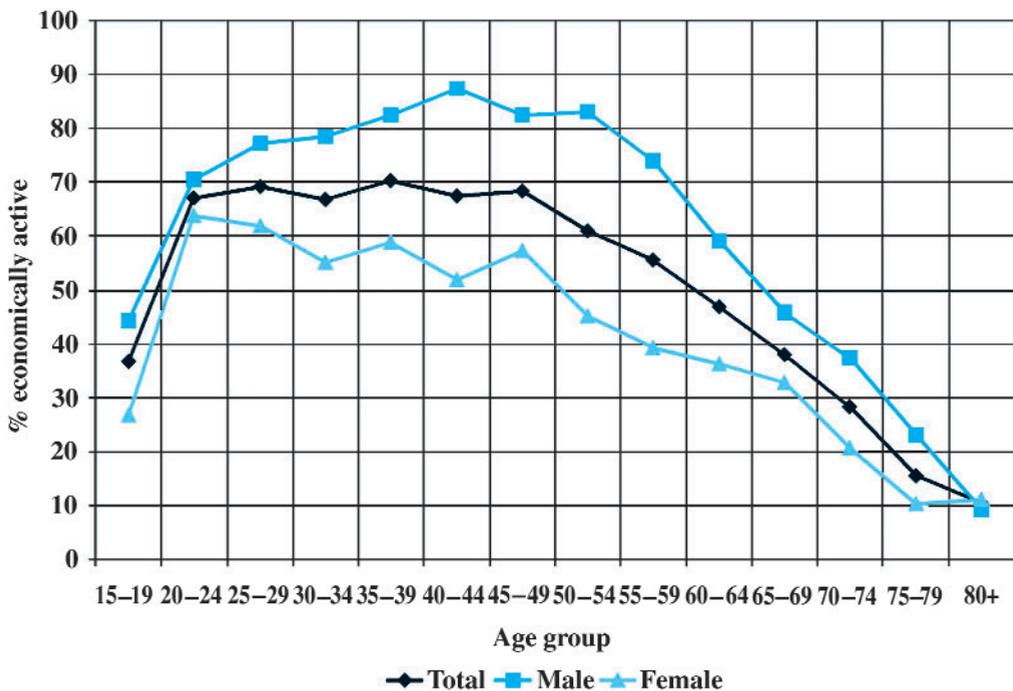
Male labour force indicators were considerably more positive than female labour force indicators. Both the labour force participation rate and the employment–population ratio were higher for males than for females throughout Tuvalu; however, unemployment rates were higher for females.

The labour force participation rate is calculated by dividing the number of persons 15 years and older who are economically active (in the labour force) by the total number of people of those ages.

The employment–population ratio is calculated as the number of persons 15 years and older who are formally employed, divided by the total number of people of those ages.

The unemployment rate is calculated by dividing the number of unemployed people by the number of people in the labour force.

Figure 15 - Resident population 15 years and older, by sex and proportion economically active



Slightly more than 44% of all male teenagers aged 15 to 19 were economically active, compared to 27% of female teenagers (Figure 15). While the proportion of economically active males remained well above 80% throughout most of adult life (35–54 years of age), the proportion of economically active females gradually declined after age 24. However, more than half of all females were economically active until age 50. Remarkably, at ages 60 years and older, the economically active proportion of the population remained relatively high, and at 75 years and older, more than 10% of people were still part of the labour force.

5.2.1 Subsistence

Full-time activities such as fishing, agriculture and handicraft production for oneself or one's family are usually classified as "subsistence" activities.

Of the 3,237 persons who worked during the week before the census, 39% (1,259) were not formally employed but were engaged in subsistence activities, equating to 21% of the population 15 years and older (Table 10). In the Outer Islands, more than 30% of the labour force and more than 60% of the population 15 years and older were engaged in these activities. In Funafuti, by contrast, only 6% of the population 15 years and older, and only 10.8% of the labour force, engaged in subsistence production.

The proportion of females undertaking subsistence activities was considerably higher than the proportion of males within the labour force.

Table 10 - Population engaged in fishing, agriculture or handicraft activities, by island/region and by sex

	Tuvalu	Funafuti	Outer Islands
Number of persons engaged in subsistence activities			
Total	1,259	153	1,106
Males	598	60	538
Females	661	93	568
Persons engaged in subsistence activities, as percentage of total resident population 15 years and older			
Total	21.1	6.0	32.5
Males	21.2	4.7	34.7
Females	21.1	7.2	30.7
Persons engaged in subsistence activities, as percentage of labour force			
Total	38.9	10.8	60.9
Males	32.1	7.2	52.3
Females	48.1	15.8	72.2

Of those engaged in subsistence production, women were mainly making handicrafts, and men were mainly fishing (Figure 16). Although slightly more males than females grew crops and raised livestock, females also played an important role in these activities. The vast majority of people working in this way lived in the Outer Islands (Figure 17). Of subsistence activities, the only one noticeable in Funafuti was the making of handicrafts.

The few people engaged in fishing, agriculture and handicraft production in Funafuti were probably mainly producing goods for sale rather than for use by the producer or their family, as people were in the Outer Islands (Table 11).

Table 11 - Proportion of fishing, agriculture or handicraft activities to produce goods for sale, by island/region

Activity	Tuvalu	Funafuti	Outer Islands
Crops	8.0	45.5	3.1
Livestock	8.5	27.8	7.3
Handicrafts	51.3	85.6	44.0
Fishing	20.3	50.0	16.6

From the data in Table 11, it is apparent that subsistence activity was a large part of Tuvalu's economy, and especially of the Outer Islands' economies, in 2002. The proportion cannot be established exactly, because it is not clear whether people were engaged in one or more of the activities, or what the exact purpose of the activities was for each person. However, it is clear that many who undertook fishing, agriculture or handicraft production intended to sell their products, especially in Funafuti. In such cases, these were not subsistence activities.

Figure 16 - Number of persons engaged in fishing, agriculture and handicraft production, by sex

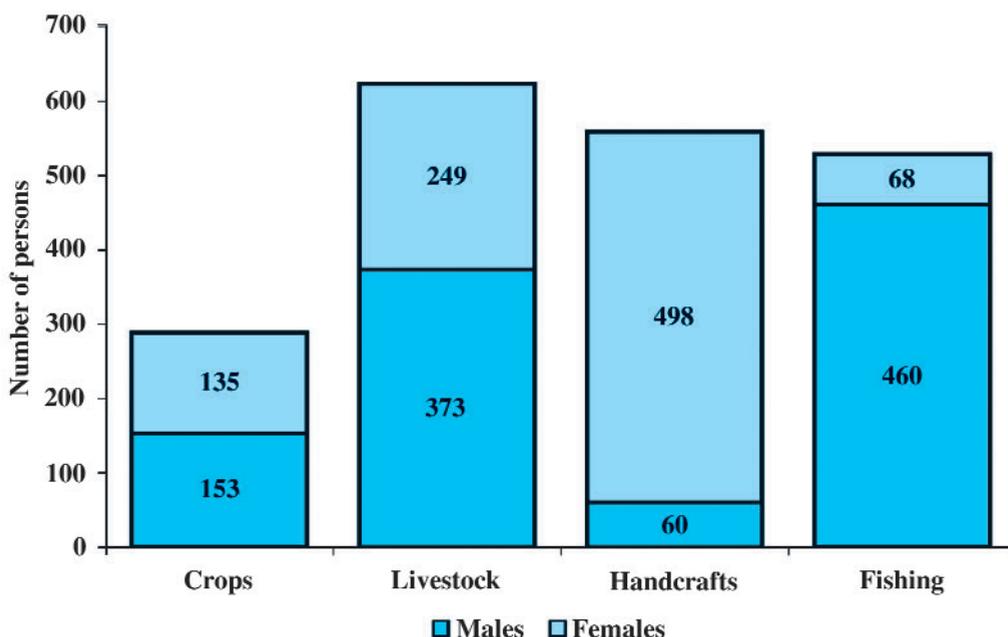
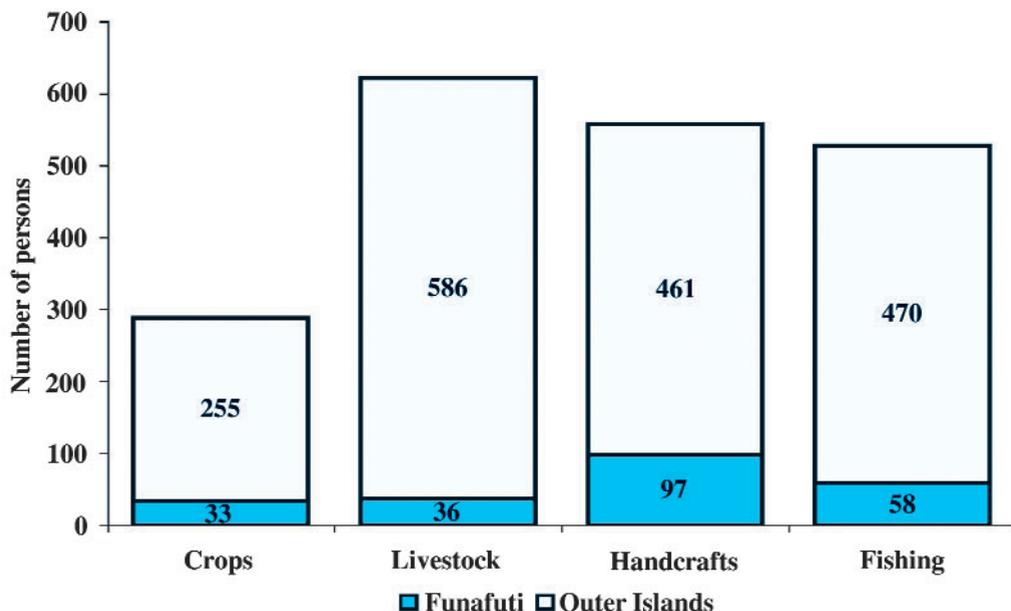


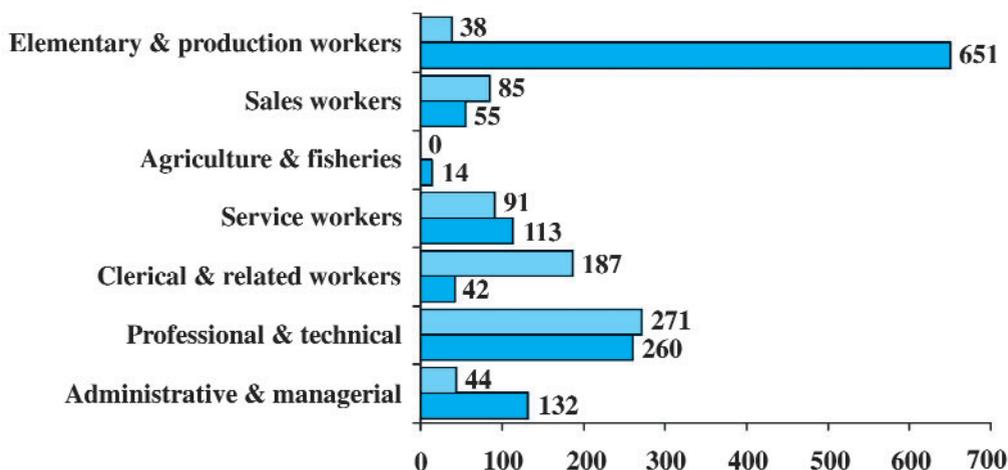
Figure 17 - Number of persons engaged in fishing, agriculture and handicraft production, by island/region



5.2.2 Occupation

As shown in Figure 18, elementary and production workers formed the biggest occupational group in Tuvalu (35% of all employees), followed by professional and technical workers (27%), clerical and related workers (12%), service workers (10%), administrative and managerial workers (9%) and sales workers (7%). Only 1% of the workforce was employed in agriculture and fisheries.

Figure 18 - Resident population 15 years and older, by sex and occupation



Females dominated among clerical and related workers, sales workers and professional and technical workers; males dominated all other occupational groups.

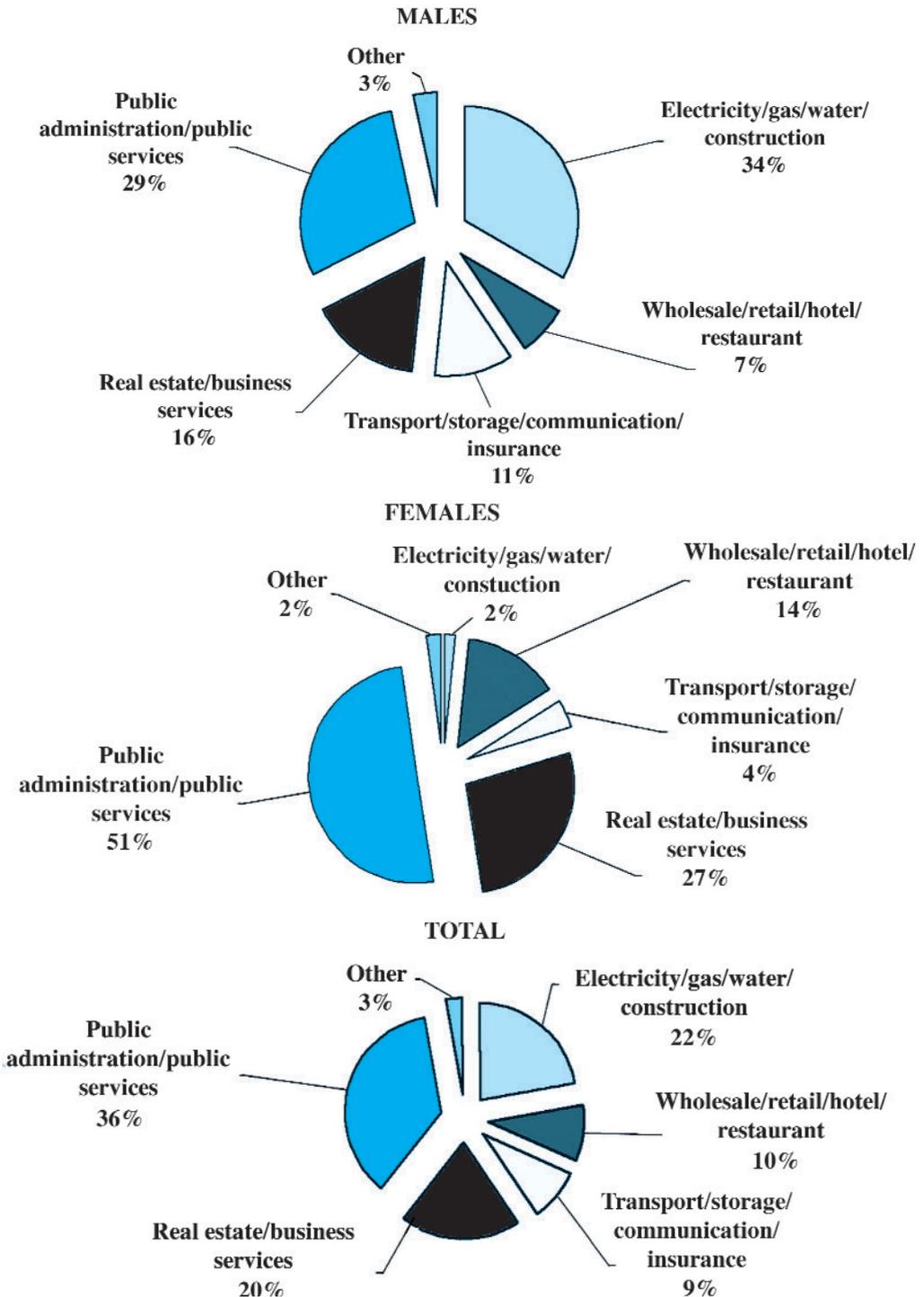
5.2.3 Industry

Figure 19 shows that the Tuvaluan industries with the most employees were public administration and public services (with almost 37% of all employees), followed by the electricity, gas, water and construction industries (22%); real estate and business services (20%); wholesale, retail, hotel and restaurant businesses (10%); and transport, storage, communication and insurance (almost 9%). The remainder of employees worked in such industries as agriculture, fishing, printing and publishing.

While the majority of females worked in the public administration and public services sector, one-third of all males worked in the electricity, gas, water and construction industries.

Females dominated in two areas — public administration and public services, and the wholesale, retail, hotel and restaurant industry; males dominated in all other industries.

Figure 19 - Resident population 15 years and older, by sex and industry of employment (percentage distribution)



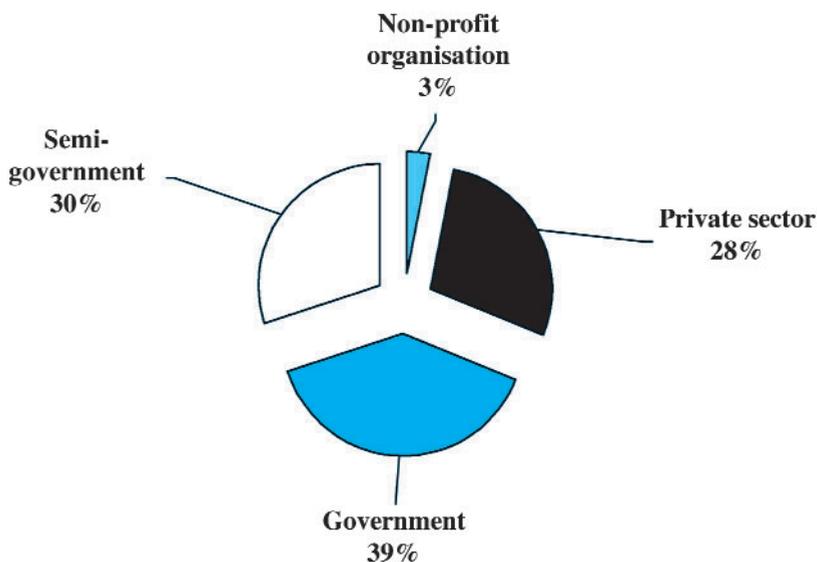
5.2.4 Sector of employment

In 2002, the government and semi-government (public corporations) sector was the largest employer, with 69% of all employees, followed by the private sector with 28% (Figure 20). Only 3% of employees worked for non-profit organisations.

There was great variation between the islands in the importance of sectors of employment. The government sector employed more people in Funafuti than in the Outer Islands, but the semi-government sector (public corporations) was more important in the Outer Islands. While the private sector employed slightly more people in the Outer Islands than in Funafuti, non-profit organisations employed more people in Funafuti.

Females were more likely to work for the government than males, and males were more likely to work for the private sector.

Figure 20 - Resident population 15 years and older, by sector of employment



5.2.5 Hours worked per week

Five per cent of males and 14% of females worked 30 hours per week or less; 77% of males and females worked between 31 and 40 hours; and 18% of males and 9% of females worked between 41 and 50 hours. In general, working hours were slightly less in the Outer Islands than in Funafuti, especially for females.

5.3 Non-labour force

The non-labour force included people who were not economically active, such as students, retired persons and people engaged in full-time home duties. This group comprised 2,491 people, or 41.8% of the population 15 years and older (Table 8 and Figure 14).

Almost two-thirds (1,576 persons, or 63.3%) of the non-labour force were engaged in home duties, 125 people (5%) were retired or disabled, and 351 people (14%) were students.

A considerable number of people (439) stated that they were not part of the labour force but did not give a reason for their non-participation.

Most of the non-labour force were females (1,633, or 66%), who also made up 77% of all those engaged in full-time home duties. In 2002, there were more male than female students (192 males, 159 females), but there were slightly more female than male retirees and disabled people (68 females, 57 males).

The non-labour force formed a larger proportion of the total population in the Outer Islands (44%) than in Funafuti (39%).

6 - Health characteristics

In response to a request from the Ministry of Health, every person 15 years and older was asked in the 2002 census whether they smoked tobacco and/or drank alcohol. Unfortunately, the questions on smoking and drinking were not further elaborated, so it was not possible to undertake detailed analysis of per capita tobacco and alcohol consumption.

More males than females both smoked and drank (Table 12, Figures 21 and 22). More than half of all males but less than a quarter of females were smokers. Almost half of all males drank alcohol, whereas only a small minority of females did. However, responses to questions on alcohol and tobacco consumption are not always reliable, particularly in a situation where family and/or household members are present during the interview.

Smoking was more common in the Outer Islands than in Funafuti, whereas drinking was slightly more common on the capital island than in the Outer Islands.

Table 12 - Proportion of resident population 15 years and older, smoking cigarettes and drinking alcohol

Island/region	Smoking			Drinking		
	Total	Males	Females	Total	Males	Females
Funafuti	36	50	21	26	49	3
Outer Islands	40	59	24	21	45	1
Tuvalu	38	55	23	23	47	2

6.1 Smoking

Of all age groups, people aged 45–54 years were the most likely to smoke, and at any age more males smoked than females. Almost 30% of teenage boys answered that they smoked, compared to only 4% of teenage girls (Figure 21).

6.2 Drinking

Of all age groups, people aged 20–39 years were the most likely to drink and, at any age, males were more likely to drink than females, with the highest proportion of males drinking in the 25–29 year age group (Figure 22).

Figure 21 - Proportion of resident population 15 years and older, smoking cigarettes

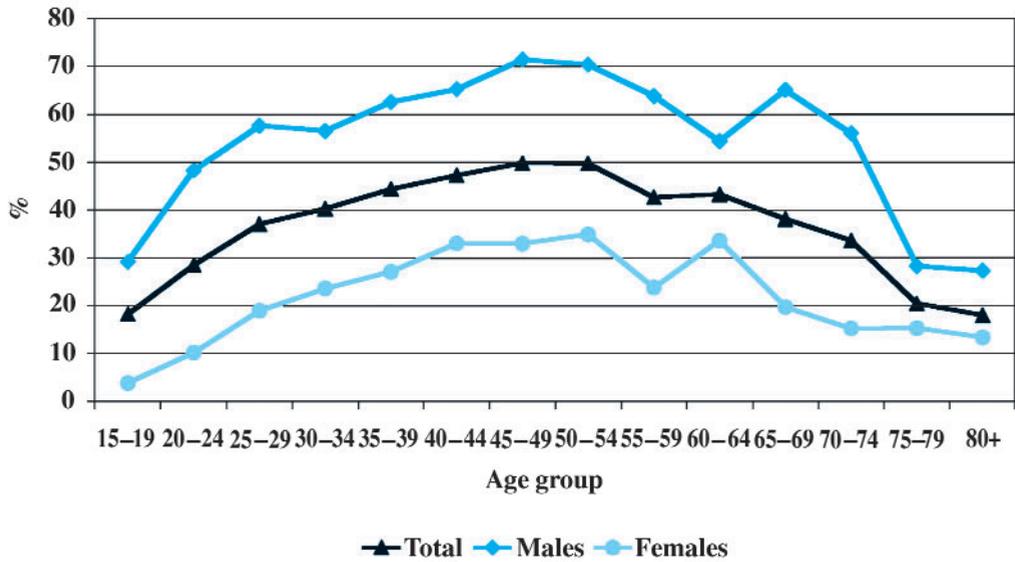
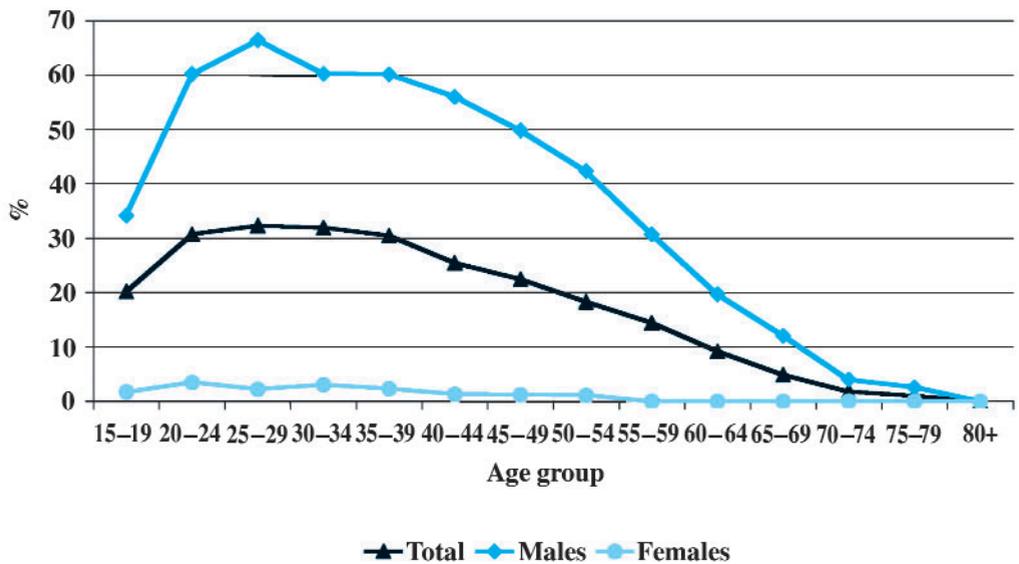


Figure 22 - Proportion of resident population 15 years and older, drinking alcohol



7 - Household characteristics

7.1 Household size

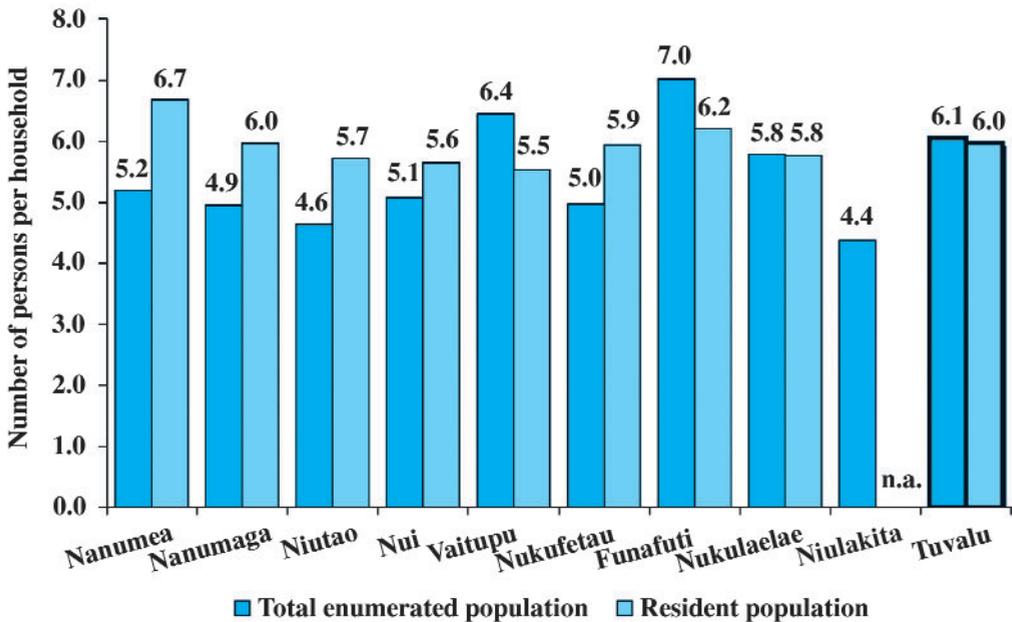
The 2002 census counted a total of 1,579 occupied dwellings in Tuvalu. These comprised 1,568 private dwellings and 11 non-private dwellings (such as dormitories for the secondary school students in Vaitupu and the Maritime Training Institute in Funafuti).

The number of privately occupied dwellings increased by 116 compared to the 1991 census, when there were only 1,452 private households.

The average number of persons per household in Tuvalu was 6.0, compared to 6.2 in 1991 and 6.6 in 1979.

There were marked differences in average household size between islands (Figure 23), ranging from 6.7 in Nanumea to only 5.5 in Vaitupu.

Figure 23 - Average household size, by total enumerated population and resident population



One-person households were rare in Tuvalu (76). However, more than one-quarter (2,495) of the resident population lived in the 201 households having 10 persons or more per household (Table 13).

Table 13 - Number of privately occupied households, by household size and persons per household

Household size	Number of private households		Number of persons per household	
	Number	%	Number	%
1	76	4.8	76	0.8
2	136	8.7	272	3.0
3	201	12.8	603	6.6
4	223	14.2	892	9.8
5	236	15.1	1,180	13.0
6	182	11.6	1,092	12.0
7	133	8.5	931	10.3
8	89	5.7	712	7.8
9	91	5.8	819	9.0
10+	201	12.8	2,495	27.5
Total	1,568	100.0	9,072^a	100.0

a Including 201 visitors from overseas, and excluding 488 residents who stayed in institutions, mainly in Vaitupu.

7.2 Household composition

Data on household composition were established by identifying a head of household, who served as a reference person to whom all other persons in the household could be related, usually by family membership (Table 14).

Although the 2002 census found a total of 1,568 private households, only 1,561 household heads were recorded. The difference of seven is explained by young boys temporarily staying by themselves in the Outer islands while their families moved to Funafuti on family business. The boys were not regarded as household heads because they were less than 18 years of age and unmarried.

Most heads of households in Tuvalu were males (1,200, or 77%). Only 27 male spouses were counted among the 361 households headed by females, showing that the head of the household is usually an adult male as long as there is one present, and that women usually only head the household if a suitable male (husband, father or father-in-law) is not available.

An extended family structure is common in Tuvalu, and in the 2002 census only 58% of all households comprised a husband and wife and their natural or adopted children — the so-called nuclear family. Another 33.5% of households included other relatives (such as parents, siblings, cousins, uncles/aunts, nephews/nieces etc), and 8.7% included non-relatives.

Table 14 - Resident population by household composition (relationship to head of household)

Relationship	Number			Percentage		
	Total	Male	Female	Total	Male	Female
Head	1,561	1,200	361	100.0	76.9	23.1
Spouse	1,048	27	1,021	100.0	2.6	97.4
Child	2,519	1,341	1,178	100.0	53.2	46.8
Adopted child	118	65	53	100.0	55.1	44.9
Parent	144	30	114	100.0	20.8	79.2
Sibling	206	100	106	100.0	48.5	51.5
Other relative	2,687	1,344	1,343	100.0	50.0	50.0
Unrelated	789	353	436	100.0	44.7	55.3
Total	9,072	4,460	4,612	100.0	49.2	50.8

7.3 Household appliances and amenities

7.3.1 Type of kitchen

In Tuvalu, a traditional kitchen is separate from the main dwelling; the household cooks outside the house, often in an umu (a special structure containing an open fire). Modern kitchens are inside the dwelling. The traditional kitchen is the most common type.

While two out of three kitchens in the Outer Islands were of the traditional style, only one in 10 kitchens were of the traditional type in Funafuti, where more than 70% of all kitchens were modern.

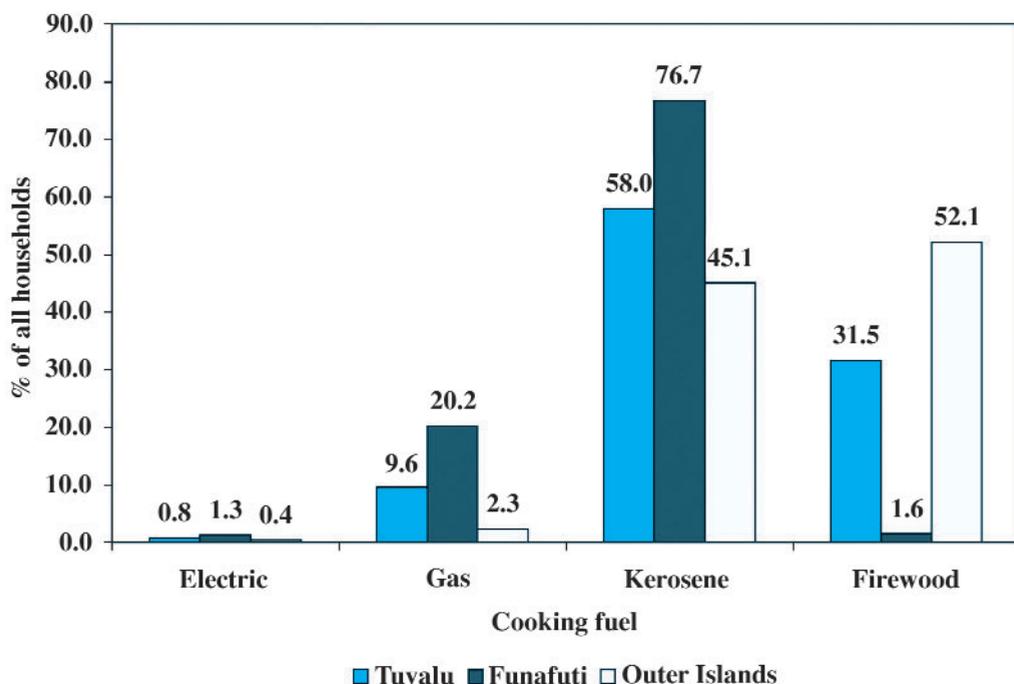
Table 15 - Households, by type of kitchen (percentage of all households)

Island/region	Traditional	Modern	Traditional and modern	Total
Funafuti	11.0	72.1	16.9	100
Outer Islands	66.3	19.3	14.4	100
Tuvalu	43.8	40.8	15.4	100

7.3.2 Principal cooking fuel

The majority (58%) of Tuvalu households used kerosene as their main cooking fuel (Figure 24). This percentage was highest in Funafuti (76.7%), but only 45.1% in the Outer Islands, where most households (52.1%) used firewood as their main fuel. Gas was another significant fuel, and was used by 20% of all private households in Funafuti.

Figure 24 - Privately occupied dwellings, by region and principal cooking fuel (percentage of all households)



7.3.3 Means of generating electricity

Almost all private dwellings, both in Funafuti and the Outer Islands, used electricity as their main means of lighting (Table 16). However, about 5% of all households used a lantern or hurricane lamp, and some households in the Outer Islands used a solar panel to generate electricity.

Table 16 - Privately occupied dwellings, by main means of lighting (percentage of all households)

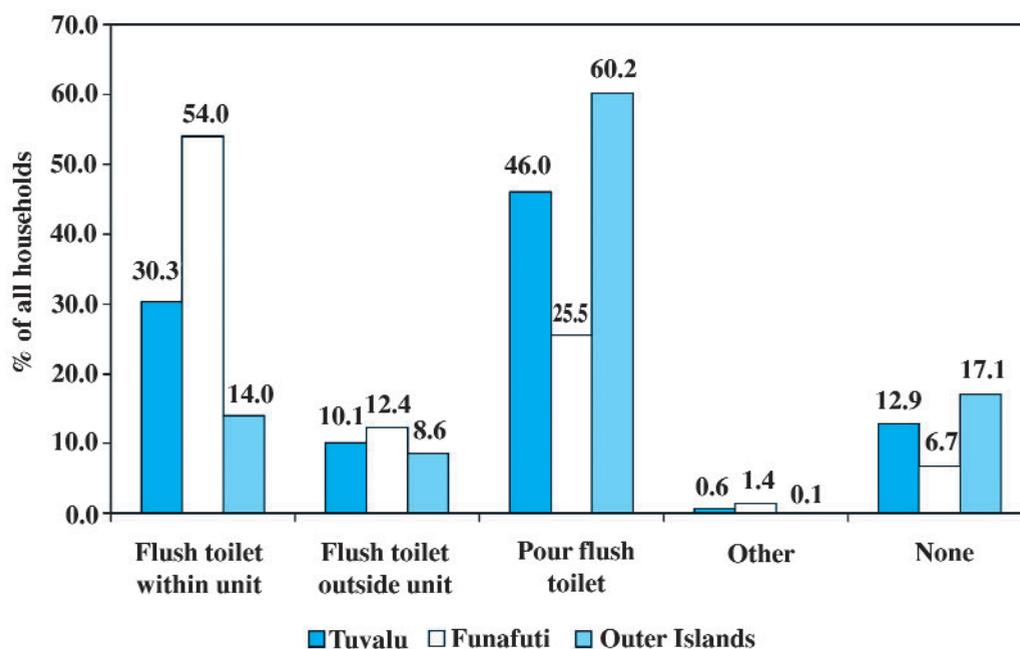
Island/region	Number of households	Electricity	Solar	Lantern/hurricane lamp	Other
Funafuti	639	94.8	0.6	4.5	0.0
Outer Islands	929	90.0	4.1	5.7	0.2
Tuvalu	1,568	92.0	2.7	5.2	0.1

7.3.4 Toilet facilities

The most common type of toilet in Tuvalu was a pour flush toilet (46%), and this type was the most common in the Outer Islands (60% of households; Figure 25). Almost 13% of all Tuvalu households had no toilet available.

Most households in Funafuti (66.4%) had a flush toilet installed, and most were within the dwelling. Only 22.6% of all households in the Outer Islands had a flush toilet available, and 17% had no toilet at all.

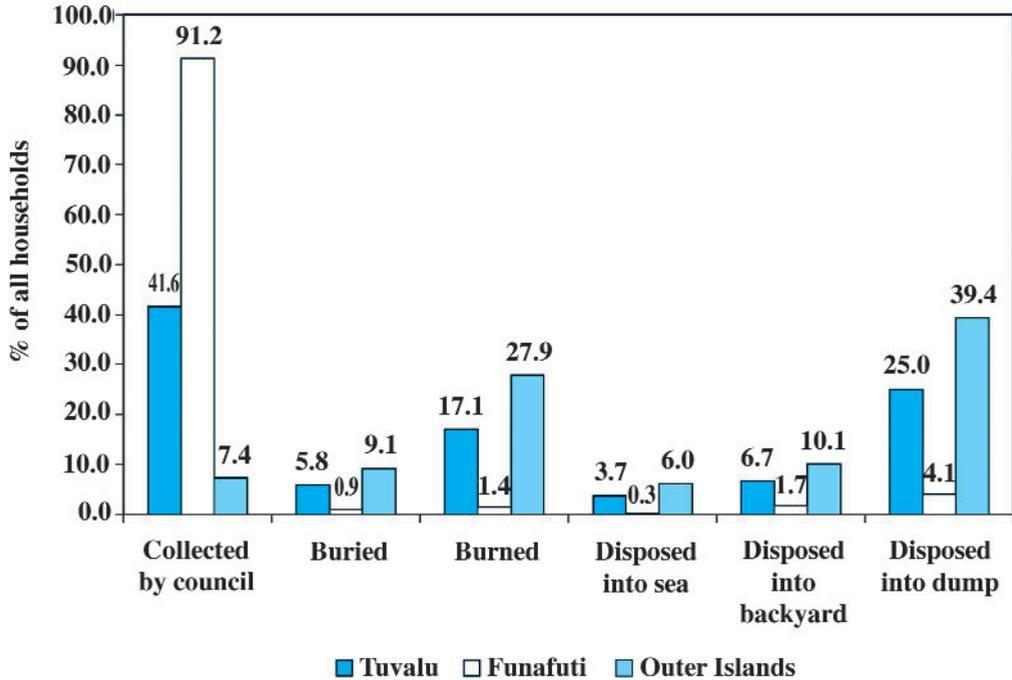
Figure 25 - Privately occupied dwellings, by island/region and type of toilet facilities (percentage of all households)



7.3.5 Means of waste disposal

The main means of waste disposal in Tuvalu at 41.6% was collection by the local authorities (41.6%; Figure 26). This method was most common in Funafuti, where 91.2% of all privately occupied dwellings had their waste collected. In the Outer Islands, only 7.4% of households had their waste collected. The most common ways to dispose of waste in the Outer Islands were to discard it into a dump or to burn it; other methods were to dispose of the waste in the backyard and to bury it.

Figure 26 - Privately occupied dwellings, by island/region and waste disposal method (percentage of all households)



7.3.6 Household appliances

Since electricity has become available throughout Tuvalu's islands, electrical appliances for cooking, general household tasks, entertainment and personal care have become more common (Tables 17–19). For example, by 2002, 13% of all private occupied dwellings had a rice cooker, 16% an electric toaster and a sandwich maker, 43% a freezer, 56.6% a sewing machine, 58.8% a washing machine, 46.7% a TV, 44.5% a stereo, 23.2% a DVD/CD deck, and 5.9% a personal or laptop computer. These percentages were considerably lower in the Outer Islands than in Funafuti.

Only one in five households had a fixed telephone installed. Telephone installations ranged from 39% of all households in Funafuti to only 8.7% in the Outer Islands.

Table 17 - Proportion of households, by island/region and availability of cooking appliances

Cooking appliance	Tuvalu	Funafuti	Outer Islands
Electric stove	2.8	4.2	1.8
Gas stove	29.0	52.4	12.8
Kerosene stove	90.0	90.5	89.7
Rice cooker	13.1	23.0	6.2
Electric toaster	16.2	31.9	5.4
Sandwich maker	16.5	31.0	6.5
Electric frying pan	6.4	12.1	2.6
Electric kettle	24.3	39.3	14.0
Cake mixer	20.8	32.2	12.9
Microwave oven	2.6	5.3	0.6
Other	1.3	1.7	1.0

Table 18 - Proportion of households, by island/region and availability of household appliances

Household appliance	Tuvalu	Funafuti	Outer Islands
Freezer	43.1	50.4	38.1
Refrigerator	26.7	49.5	11.0
Washing machine	58.8	71.5	50.1
Sewing machine	56.6	55.4	57.4
Electric fan	59.8	81.2	45.1
Iron	52.2	73.9	37.4
Fixed telephone	21.0	39.0	8.7
Other	1.0	1.3	0.8

Table 19 - Proportion of households, by island/region and availability of entertainment appliances

Entertainment appliance	Tuvalu	Funafuti	Outer Islands
Radio	47.3	48.2	46.7
Stereo	44.5	57.7	35.3
TV monitor	46.7	65.1	34.1
Video deck	46.0	60.9	35.7
DVD/CD deck	23.2	34.0	15.8
Video/digital camera	11.0	21.1	4.0
PC/laptop	5.9	13.6	0.5
Other	0.7	0.8	0.6

7.3.7 Transport equipment

Table 20a shows the total count of transport equipment available to private households during the 2002 census. Many households owned several vehicles or bicycles, whereas some had none available. The census recorded 1,192 bicycles, 1,096 motorbikes, 75 cars, 39 trucks, 30 vans and 341 handcarts. Most motor vehicles were in Funafuti, but most bicycles were in the Outer Islands.

Table 20b shows the percentage of households that own at least one type of vehicle.

A motorbike was owned by 52.2% of all households (66.2% in Funafuti and 43.1% in the Outer Islands). Almost 10% of all Funafuti households owned a car, compared to less than 1% in the Outer Islands. In the Outer Islands, 70% of households owned a bicycle, compared to only 30.8% of households in Funafuti.

Table 20a - Households, by island/region and total number of vehicles owned

Island/region	Number of households	Bicycle	Motorbike	Car	Truck	Van	Handcart
Funafuti	639	259	607	69	31	28	110
Outer Islands	929	933	489	6	8	2	231
Tuvalu	1,568	1,192	1,096	75	39	30	341

Table 20b - Households that owned at least one type of vehicle, by island/region (percentage of all households)

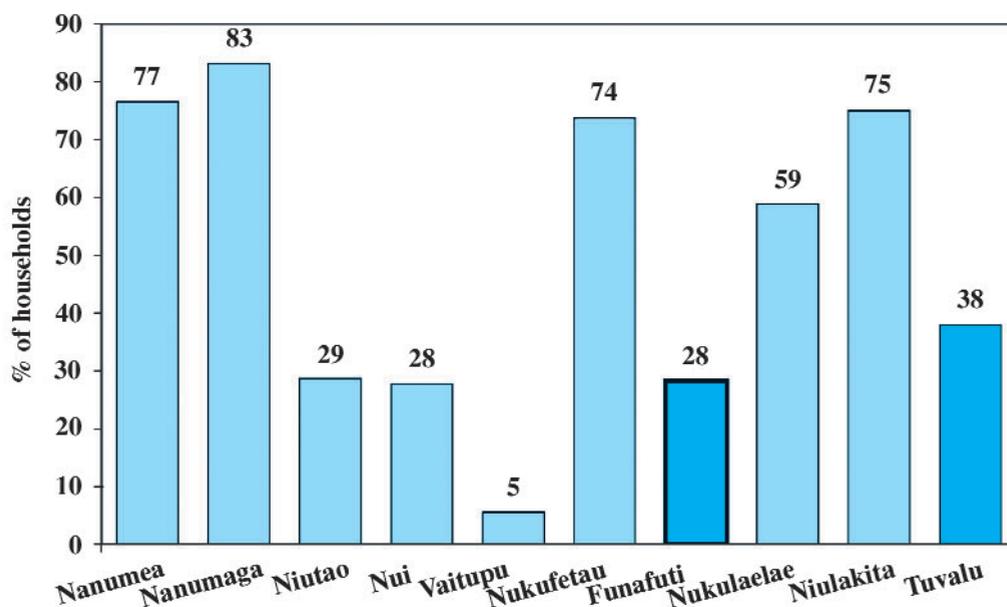
Island/region	Number of households	Bicycle	Motorbike	Car	Truck	Van	Handcart
Funafuti	639	30.8	66.2	9.5	4.5	4.4	16.7
Outer Islands	929	73.1	43.1	0.6	0.8	0.2	24.4
Tuvalu	1,568	55.9	52.5	4.3	2.3	1.9	21.3

7.4 Household activities

7.4.1 Agricultural activity

More than one-third (38%) of all households in Tuvalu were involved in agricultural activities, although almost exclusively for their own use (subsistence). The proportion was generally higher in the Outer Islands than in Funafuti, although households in Vaitupu were the least involved in agriculture (Figure 27). Commercial agricultural activity was rare (less than 2% of all households).

Figure 27 - Households, by island and agricultural activity (percentage of all households)



7.4.2 Keeping of livestock

Ownership of livestock, like ownership of transport equipment, was uneven. While many households owned many animals, others owned none (Table 21).

Table 21 - Households, by island/region and number of livestock

Island/region	Number of households	Pigs	Chickens	Ducks	Cats	Dogs	Other
Funafuti	639	2,275	428	65	666	931	40
Outer Islands	929	6,519	12,244	2,827	1,301	1,019	113
Tuvalu	1,568	8,794	12,672	2,892	1,967	1,950	153

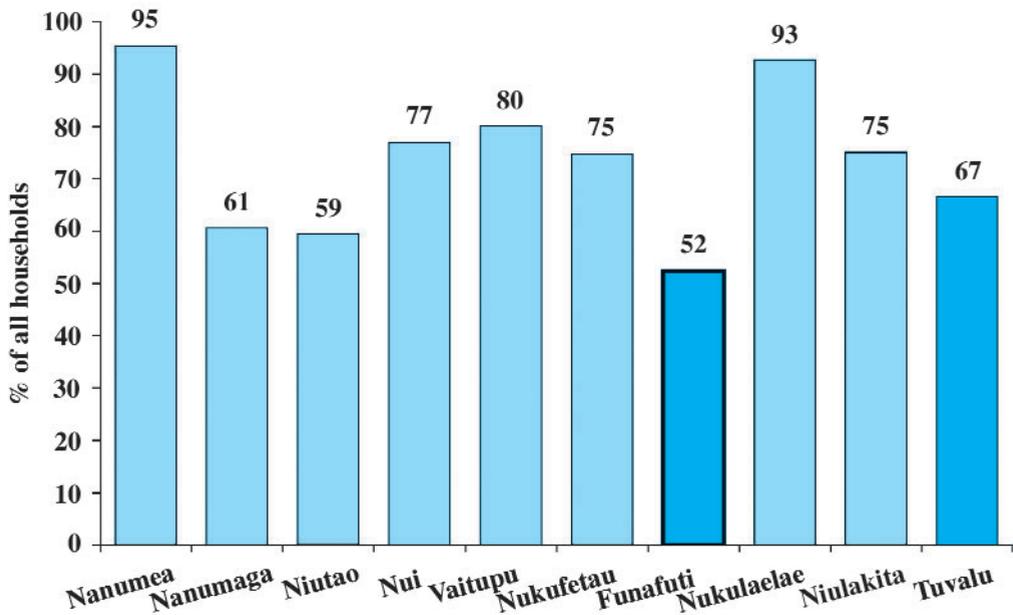
In general, livestock were much more plentiful in the Outer Islands than in Funafuti. Not surprisingly, chickens were by far the most common livestock on the islands, followed by pigs and ducks. There were about equal numbers of cats and dogs.

7.4.3 Fishing activity

Two-thirds of all households were involved in fishing activities, although mainly for their own consumption. More households in the Outer Islands fished than in Funafuti, where just over half (52%) did so (Figure 28).

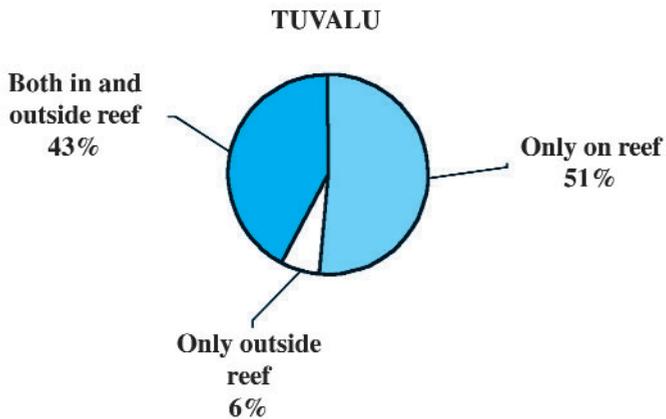
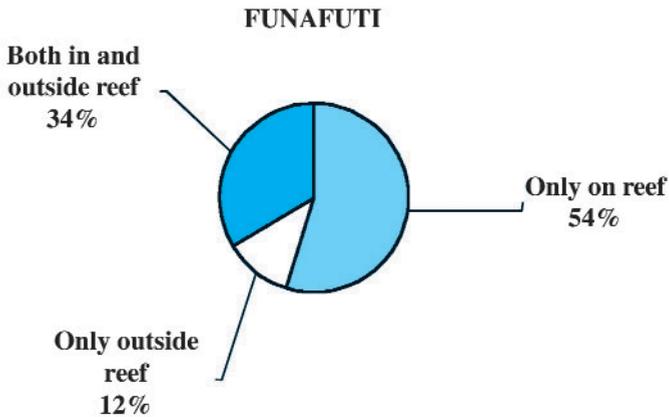
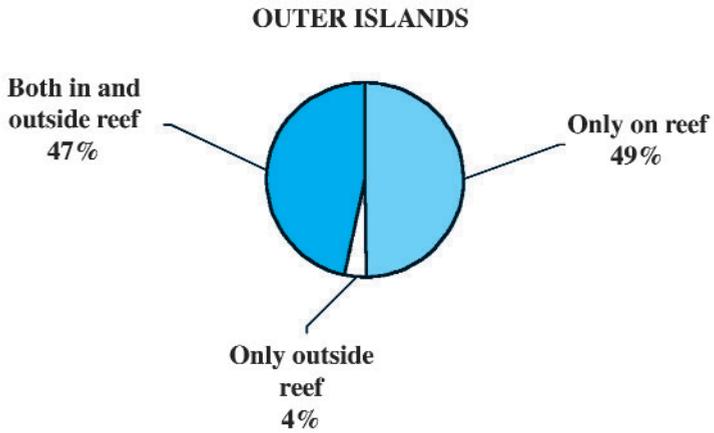
Commercial fishing was slightly more common in the Outer Islands than in Funafuti (10% and 8% respectively).

Figure 28 - Households, by island and fishing activity (percentage of all households)



Of those households that engaged in fishing, most fished only on the reef, especially in Funafuti (Figure 29). However, a large minority (42.5%) of all households fished both inside and outside the reef. Just over 6% of all households fished only outside the reef.

Figure 29 - Households, by island/region and location of fishing activities (percentage of all households)



About twice as many items of fishing equipment were counted in the Outer Islands than in Funafuti (Table 22). Fishing rods, in particular, were much more numerous in the Outer Islands.

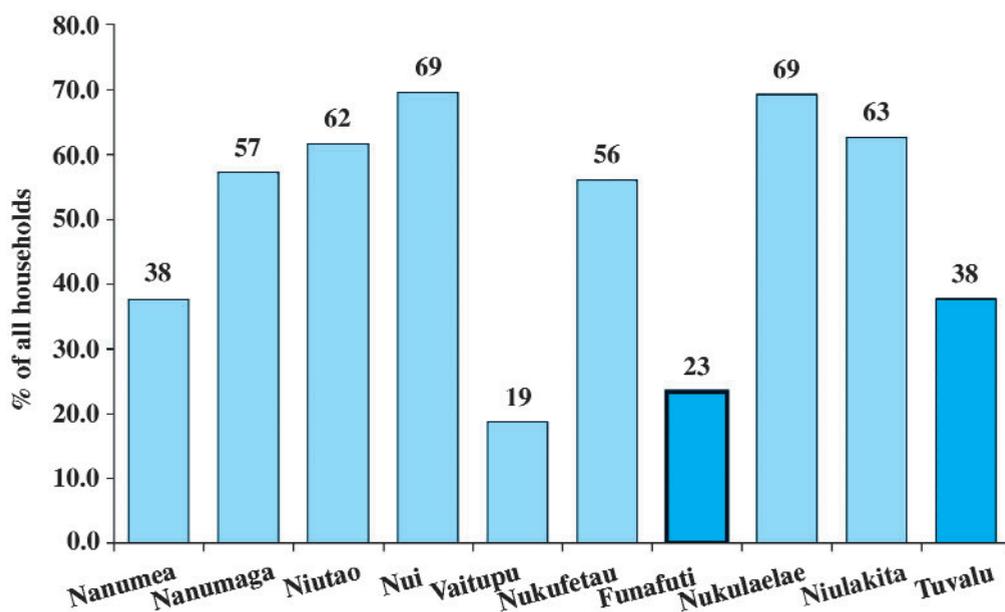
Table 22 - Households, by island/region and type of fishing equipment

Fishing equipment	Tuvalu	Funafuti	Outer Islands
Traditional canoe	319	97	222
Boat	303	120	183
Outboard motor	334	117	217
Fishing net	831	253	578
Scoop net	568	212	356
Fishing rod	1,984	465	1,519
Spear	503	241	262
Other	96	20	76
Total	4,938	1,525	3,413

7.4.4 Handicraft activity

About 38% of all households were involved in handicraft-making activities (Figure 30). Handicraft making was more common in the Outer Islands than in Funafuti, although households in Vaitupu were the least involved in this activity.

Figure 30 - Households, by island and handicraft activity (percentage of all households)



The most popular handicraft items were mats and fans, which are made mainly in the Outer Islands. Making shell necklaces was especially popular in Funafuti (Table 23).

Table 23 - Households, by island/region and type of handicraft items produced

Handicraft item	Tuvalu	Funafuti	Outer Islands
No handicraft	978	490	488
Shell necklace	137	111	26
Fan	143	14	129
Mat	268	11	257
Basket	5	2	3
String	10	0	10
Headband	4	3	1
Other	23	8	15
Total	1,568	639	929

7.5 Household income

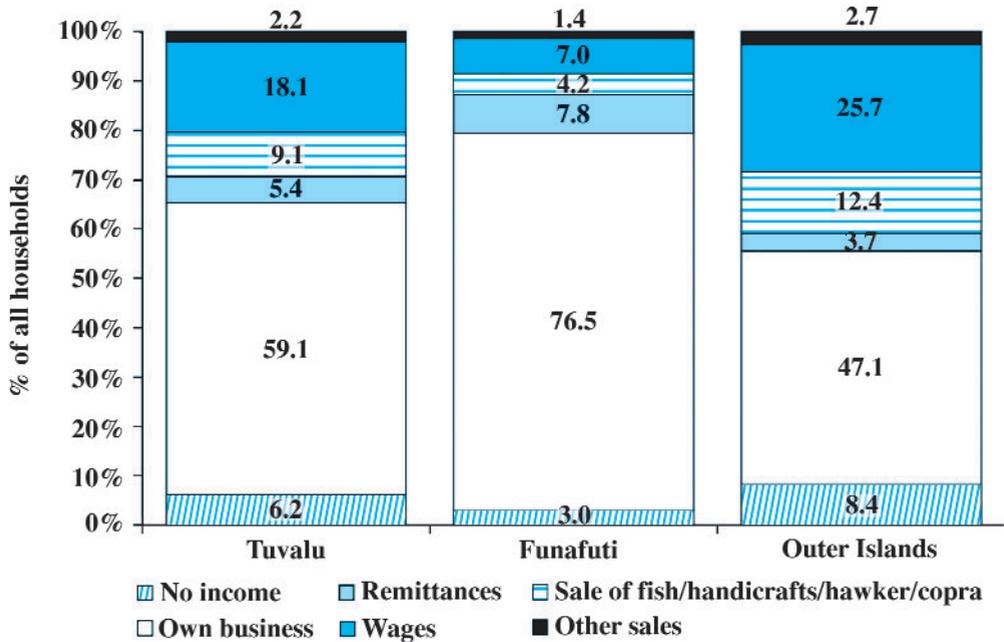
7.5.1 Main sources of household income

In Funafuti, wages were the main source of household income for 76.5% of households, with other significant income coming from their own businesses (7.8% of all households) and from remittances (7%).

In the Outer Islands, 47.1% of households relied mainly on wages, with another quarter depending mainly on remittances and 7.2% on income from selling handicrafts (Figure 31).

A total of 97 households claimed not to have had any income (3% and 8.4% in Funafuti and the Outer Islands respectively).

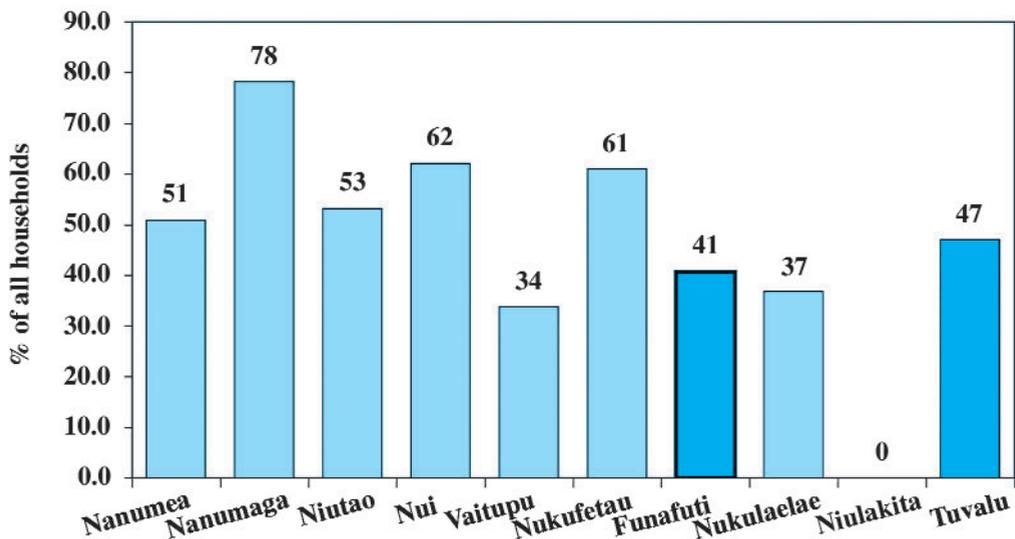
Figure 31 - Households, by island/region and main source of income (percentage of all households)



7.5.2 Remittances

Remittances were the main source of income for 18% of all households in Tuvalu (Figure 33), especially in the Outer Islands. Almost half (47%) of all Tuvalu households received some form of remittance more or less regularly (Figure 32).

Figure 32 - Households receiving remittances, by island (percentage of all households)



Most remittances were received from outside Tuvalu (73.5% of those received in Funafuti but only 45.8% of those received in the Outer Islands; Table 24). Almost one-third of households in the Outer Islands that received remittances obtained them from within Tuvalu, but this was the case for only 17.3% of remittance-receiving households in Funafuti.

Table 24 - Source of remittances, by island/region (percentage of all remittance-receiving households)

Island/region	Within Tuvalu only	Outside Tuvalu only	Within and outside Tuvalu	Total
Funafuti	17.3	73.5	9.2	100.0
Outer Islands	32.8	45.8	21.3	100.0
Tuvalu	27.4	55.6	17.1	100.0

Two-thirds of remittances were received monthly, almost 19% fortnightly and about 14% less often (Table 25). In general, households in the Outer Islands received their remittances less often than those in Funafuti.

Table 25 - Frequency of remittances, by island/region (percentage of all remittance-receiving households)

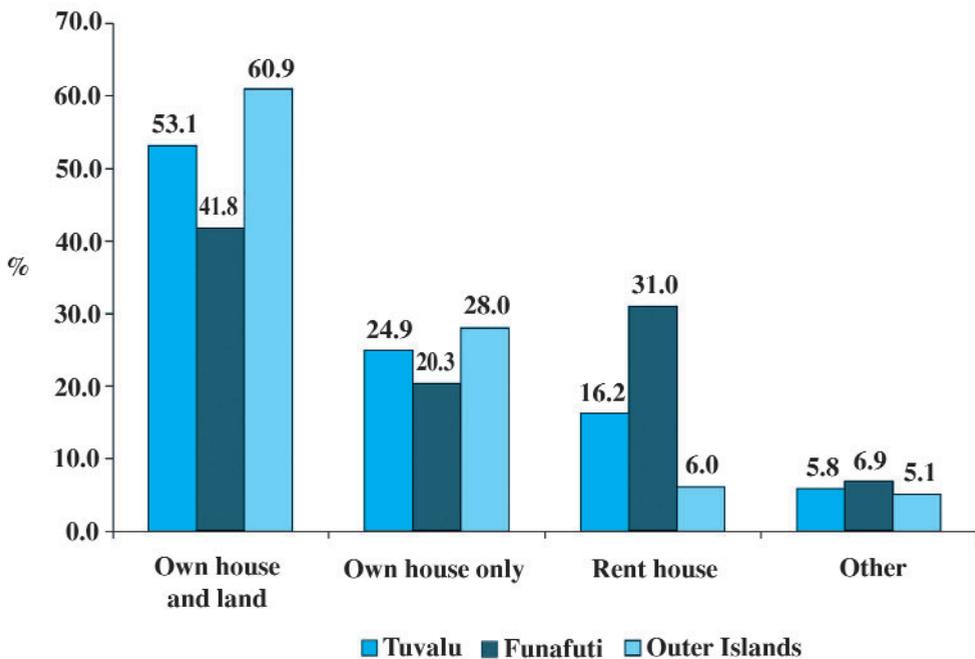
Island/region	Fortnightly	Monthly	Every 2–3 months	Once a year	Occasionally	Total
Funafuti	19.2	73.1	1.5	2.7	3.5	100.0
Outer Islands	18.6	64.0	5.9	1.0	10.5	100.0
Tuvalu	18.8	67.2	4.3	1.6	8.0	100.0

8 - Housing characteristics

8.1 Housing tenure

Of the 1,568 private dwellings in Tuvalu at the 2002 census, 78% (833) were owned outright, with or without land (Figure 33). Outright ownership was more common in the Outer Islands (89%) than in Funafuti (62%).

Figure 33 - Privately occupied dwellings, by island/region and house tenure (percentage of all households)



In 2002, 254 dwellings were rented, of which 198 were in Funafuti (31% of all houses in Funafuti). Slightly more than 40% of all rented houses were owned by the government, about 33% by private individuals, and about 11% by private corporations. The ownership of 15% of all rented dwellings was not established.

Forty-five per cent of all rented dwellings were unfurnished, 40% partly furnished, and 15% fully furnished.

Of the total rented dwellings, one-third (82) were rented for less than \$50 per month, another third (82) for \$50–199, 43 for \$200–349, and 40 for more than \$350.

Rents were considerably lower in the Outer Islands than in Funafuti. Seventy per cent of all rented dwellings in the Outer Islands were rented for \$50 or less per month, and none was rented for more than \$200 per month.

8.2 Housing structure

8.2.1 Type of house

Of Tuvalu's 1,579 occupied dwellings, 1,568 were privately occupied and 11 were part of institutions (10 in Vaitupu and one in Funafuti; Table 26).

More than half of all houses used concrete as the main building material, and just over one quarter used timber. Traditionally built houses accounted for about 17% of all houses, and almost all were located in the Outer Islands.

Table 26 - Number of occupied dwellings, by island and type of house

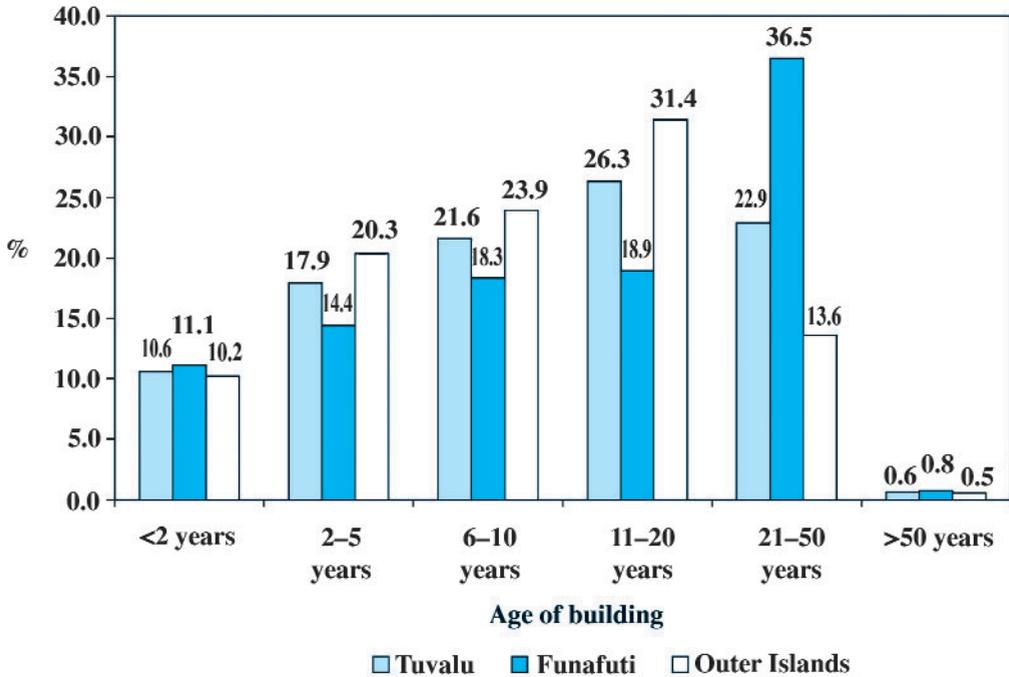
Island	Permanent			Traditional	Institution	Other	Total
	Timber	Concrete	Timber and concrete				
Nanumea	40	14	5	69	0	0	128
Nanumaga	2	49	22	46	0	0	119
Niutao	25	27	32	59	0	0	143
Nui	4	12	37	54	0	1	108
Vaitupu	72	138	12	14	10	1	247
Nukufetau	1	96	2	13	0	6	118
Funafuti	288	270	40	12	1	29	640
Nukulaelae	2	9	54	2	0	1	68
Niulakita	7	1	0	0	0	0	8
Total	441	616	204	269	11	38	1,579

8.2.2 Age of building

From the 2002 census data, the average age of Tuvalu's buildings has been calculated at 15.2 years (18.5 years in Funafuti and 12.9 years in the Outer Islands; Figure 34).

The proportion of new buildings (i.e. buildings constructed during the two years before the 2002 census) was about 10–11% in both areas.

Figure 34 - Privately occupied dwellings, by island/region and age of building (percentage of all households)



8.2.3 Construction material

The census data show that 43.1% of all private dwellings had walls made of concrete, 16.8% of timber and 9.1% of HardiFlex™. Some 9.4% were thatched and traditional (Table 27). Concrete and thatched/traditional construction were more common in the Outer Islands than in Funafuti, where timber and HardiFlex were more common.

Table 27 - Privately occupied dwellings, by island/region and type of building materials (percentage of all households)

Building material	Tuvalu	Funafuti	Outer Islands
Walls			
Timber	16.8	34.4	4.7
Concrete	43.1	39.6	45.5
Timber and concrete	7.3	6.3	8.0
Thatched /traditional	9.4	1.4	14.9
Corrugated iron/improvised	2.2	1.9	2.5
HardiFlex	9.1	13.8	5.8
Other	12.1	2.7	18.6
Roof			
Corrugated iron	83.9	97.5	74.6
with gutter	77.7	91.7	68.0
without gutter	6.3	5.8	6.6
Thatched/traditional	15.2	1.9	24.3
with gutter	0.8	0.6	0.9
without gutter	14.4	1.3	23.5
Other	0.9	0.6	1.1

The roofs of Tuvalu dwellings were most often made of corrugated iron (83.9%), and most had gutters. One-quarter of all roofs in the Outer Islands were thatched and traditional, and these were usually without gutters.

8.2.4 Floor size

The average floor size of privately occupied dwellings was about 69 square metres in Funafuti and 64 square metres in the Outer islands. While 19% had a floor size of less than 39 square metres, a quarter had floor sizes of more than 90 square metres.

Both larger and smaller houses were more common in Funafuti than in the Outer Islands, where floor sizes were more uniform.

8.2.5 Number of rooms

The average number of rooms per private occupied dwelling in Tuvalu was 2.2, including the kitchen (1.8 rooms in the Outer Islands and 2.7 rooms in Tuvalu; Table 28).

Table 28 - Privately occupied dwellings, by island/region and number of rooms (percentage of all households)

Island/region	Number of rooms ^a					
	1	2	3	4	5+	Average
Funafuti	27.1	20.2	27.4	16.0	9.4	2.7
Outer Islands	62.6	14.4	10.1	7.8	5.1	1.8
Tuvalu	48.2	16.8	17.2	11.1	6.8	2.2

a Including kitchen

8.2.6 Source, supply and storage of water

A total of 1,147 (73.2%) privately occupied dwellings used tanks as their main water supply (Figure 35), another 12.5% used a private cistern, 6.9% used a combination of tank and cistern, and 5% used the community cistern.

Most households in Tuvalu had piped water, whether to the inside or the outside of the dwelling. While internal plumbing predominated in Funafuti, the vast majority of households in the Outer Islands had water piped only to the outside of the dwelling (Figure 36). Almost 16% of all households in Funafuti and 12% in the Outer Islands had to fetch and carry water to the dwelling.

Of households using tanks, 57.6% could store more than 2,000 gallons of water (Table 29) and a further 21% could store 1,000–1,999 gallons. Just over 17% had no tank available.

Cisterns were much less common than tanks. In Funafuti, 15.5% of households used a cistern with a storage capacity of less than 1,000 gallons. Only 9.2% of the households in the Outer Islands had a cistern available, most with a capacity of 1,000–1,999 gallons.

Figure 35 - Privately occupied dwellings, by region and source of water (percentage of all households)

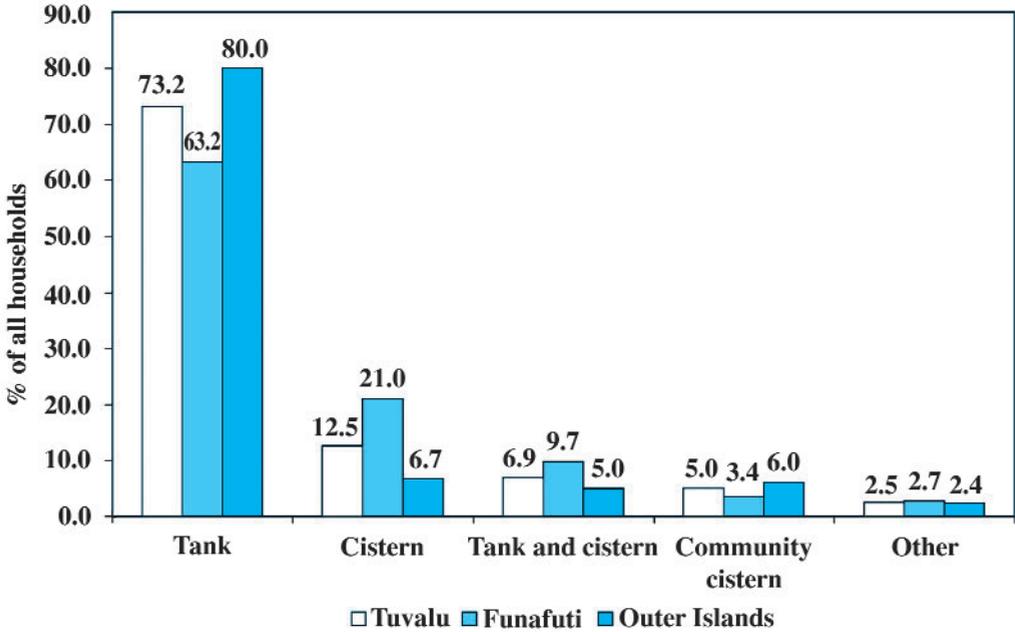


Figure 36 - Privately occupied dwellings, by region and supply of water (percentage of all households)

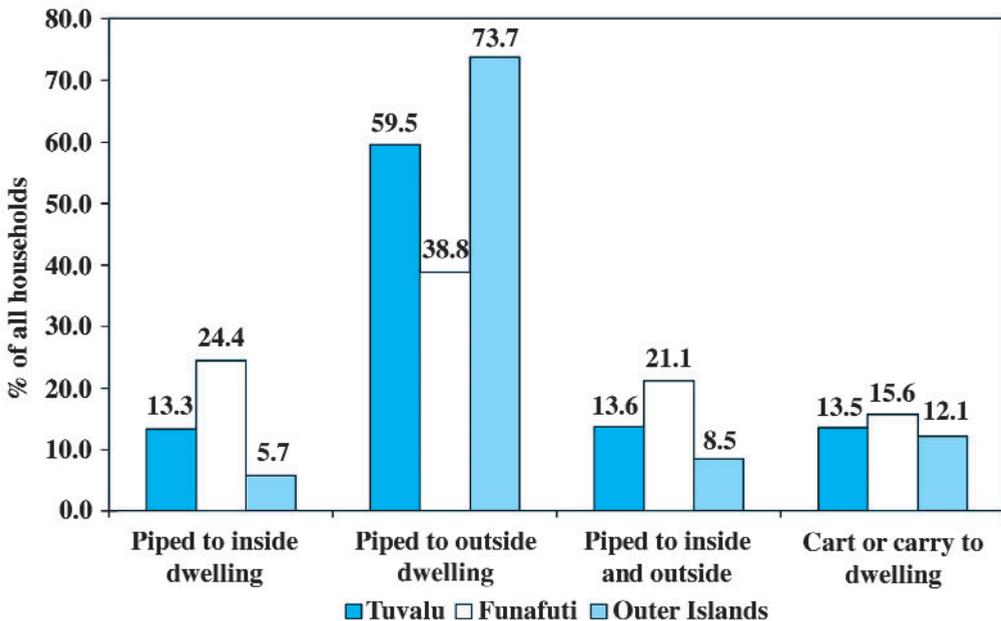


Table 29 - Households, by island/region and water storage capacity (percentage of all households)

Storage capacity (gallons of water)	Tuvalu	Funafuti	Outer Islands
Tank			
No tank	17.4	21.9	14.3
<1000	2.2	4.1	0.9
1000–1999	20.9	19.7	21.7
>2000	57.6	50.7	62.3
NA	1.9	3.6	0.8
Cistern			
No cistern	78.5	66.4	86.9
<1000	8.6	15.5	3.9
1000–1999	7.0	9.4	5.3
>2000	0.6	1.4	0.1
NA	5.3	7.4	3.9

