

## Tonga 2011 Census of

## Population and Housing,

# Volume 2: Analytical Report 

Report prepared by Tonga Department of Statistics, and<br>the Secretariat of the Pacific Community, New Caledonia.

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Report prepared by
Sione Lolohea and Lu'isa Koloamatangi, Tonga Department of Statistics
Nicholas McTurk, Secretariat of the Pacific Community, New Caledonia
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Secretariat of the Pacific Community (SPC) BP D5, 98848 Nouméa Cedex

New Caledonia
Telephone: +687262000
Facsimile: +687263818
Email: spc@spc.int
http://www.spc.int/

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## FOREWORD

We are happy to join with the Government of the Kingdom of Tonga in launching the 'Tonga 2011 census of population and housing, Volume 2: Analytical report'. The report is based on Tonga's 2011 census of population and housing and was prepared by SPC's Statistics for Development Division in close collaboration with the Tonga Department of Statistics.

The report contains an analysis of Tonga's recent population growth and dynamics, in particular the level, trends and patterns of fertility, mortality, and migration and their impact on the environment and implications for health, education and economic activity. The report presents a set of population projections to provide planners and policy-makers with scenarios of the size and structure of Tonga's future population to aid planning for the differing needs of the young, working age and elderly.

Since 1967, the Secretariat of the Pacific Community (SPC) has assisted Pacific Island countries and territories in the areas of population data collection and demographic analysis. Generous support from bilateral and multilateral donors, most notably the Australian Government and the United Nations Population Fund (UNFPA), has enabled SPC to provide technical assistance on population censuses and surveys, covering all aspects from design, data collection and processing, to analysis and dissemination, with a strong emphasis on training and institutional capacity building.

Evidence-based decision-making and effective planning are essential to good governance. An important aspect of data dissemination is therefore to provide technical information in formats that can be understood and applied by technical and non-technical users, to ensure that planners and policy-makers can take key features of their national socio-economic and demographic situation into account.

SPC also emphasises the importance of close collaboration with national counterparts in transferring knowledge for improving analytical methodologies, and planning and organising national reports. This emphasis facilitates the long-term sustainability of regional and national capacity in demographic analysis.

The information presented here is the result of intensive effort and collaboration between the people of Tonga, the Tonga Department of Statistics and SPC. I acknowledge their valuable work and trust the results will be immensely useful in planning for Tonga's future development.

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$$

Director
Statistics for Development Division
Secretariat of the Pacific Community

## ACKNOWLEDGEMENT FROM THE KINGDOM OF TONGA GOVERNMENT

This analytical report is the 7 th census of population and housing report of the kingdom since 1956, and the 5 th census of population and housing conducted by the Statistics Department.

The report contains an analysis of Tonga's recent population growth and dynamics, in particular the level, trends and patterns of fertility, mortality, and migration and their impact on the environment and implications for health, education and economic activity. The report presents a set of population projections to provide planners and policy-makers with scenarios of the size and structure of Tonga's future population to aid planning for the differing need of the young, working age and elderly. Information incorporated in this analytical report will facilitate decisions made on Tonga's future.

The 2011 census of population and housing was carried out with the support and efforts of many people. These include: Minister of Finance, under whose authority the census of population and housing was undertaken; the Chairperson of the Steering Committee; and the Secretary of Finance for his leadership and coordination of the Steering Committee, thus making all census activities possible. Thanks also to all the members of the steering committee for their valuable contributions and suggestions in making the census operations work efficiently.

My appreciation is extended to the Secretariat of the Pacific Community (SPC) for all the technical assistance they provided. I also wish to acknowledge the Australian Government's financial assistance because without their support the census would not have happened.

I gratefully acknowledge the support of local businesses, including Tonga Power, Tonga Broadcasting Commission and Tonga Communication Commission for their contributions toward our publicity programme. My sincere gratitude to the Director of Education for allowing education officers and teachers to enumerate and supervise the 2011 census of population and housing, and to all education officers and teachers involved - your hard work is highly appreciated.

I also wish to thank the census team and the rest of the staff of the Statistics Department for their valuable contributions offered throughout the 2011 census of population and housing. Finally, to all the people of Tonga for their generous responses to the questionnaires, your contributions are of vital importance in making Tonga's 2011 census of population and housing a success.

Malo ‘Aupito
Mr'ACta'ata Finau

Government Statistician
Statistics Department
TONGA

## SUMMARY OF MAIN INDICATORS

|  | Total | Males | Females |
| :---: | :---: | :---: | :---: |
| Total enumerated population ( 30 November 2011) | 103,252 | 51,979 | 51,273 |
| Growth rate (\%) of total population, 2006-2011 | 0.2 |  |  |
| Rate of natural increase (CBR - CDR) | 2.2 |  |  |
| Implied net migration rate (rate of growth - rate of natural increase) | -2.0 |  |  |
| Population density (number of people/ $/ \mathrm{km}^{2}$ ) |  |  |  |
| Tonga | 159 |  |  |
| Tongatapu | 290 |  |  |
| Median age (in years) | 21.3 | 20.2 | 22.4 |
| Per cent of population younger than 15 years of age | 37.2 | 38.7 | 35.8 |
| Per cent of population 15-24 years of age (youth) | 18.6 | 18.9 | 18.3 |
| Per cent of population 15-59 years of age | 54.4 | 53.5 | 55.2 |
| Per cent of population 60 years and older | 8.3 | 7.7 | 9.0 |
| Age dependency ratio | 84.0 |  |  |
| Urban population (Nuku'alofa) | 24,229 | 12,156 | 12,073 |
| Per cent urban (\%) | 23.5 | 23.4 | 23.5 |
| Households |  |  |  |
| Number of private households (head of households) | 18,033 | 13,982 | 4,051 |
| Number of people in private households | 101,969 | 51,055 | 50,914 |
| Average household size | 5.7 |  |  |
| Number of institutions (non-private households) | 73 |  |  |
| Number of people in institutions | 1,074 |  |  |
| Fertility |  |  |  |
| Estimated number of births, 2011 | 2,896 |  |  |
| Crude birth rate (CBR), 2011 (per 1000) | 28.0 |  |  |
| Total fertility rate (TFR), 2011 | 3.9 |  |  |
| Teenage fertility rate, 2011 (per 1000) | 30.0 |  |  |
| Mean age at childbearing, 2011 | 29.9 |  |  |
| Average age at first marriage (SMAM ${ }^{+}$), 2011 | 26.0 | 27.2 | 24.7 |
| Mortality |  |  |  |
| Estimated number of deaths, 2011 | 699 |  |  |
| Crude death rate (CDR), 2011 (per 1000) | 6.8 |  |  |
| Life expectancy at birth, 2011 | 71.2 | 69.3 | 73.1 |
| Infant mortality rate (IMR), 2011 (per 1000) | 17 | 22 | 15 |
| Child mortality rate ( $4 \mathrm{q} 1^{1++}$ ), 2011 (per 1000) | 3 | 4 | 2 |

## SUMMARY OF MAIN INDICATORS (continued)

|  | Total | Males | Females |
| :---: | :---: | :---: | :---: |
| International migration |  |  |  |
| International net migration (2006-2011) | -9, 850 | -4,925 | -4,925 |
| Labour force |  |  |  |
| Employed population (number) | 33,422 | 19,695 | 13,727 |
| Paid workers (number) | 23,698 | 13,977 | 9,721 |
| Subsistence workers (number) | 9,549 | 5,612 | 3,937 |
| Other unspecified workers (number) | 175 | 106 | 69 |
| Unemployed (number) | 373 | 192 | 181 |
| Unemployed (number) - adjusted definition* | 2,313 | 1,356 | 957 |
| Non-labour force |  |  |  |
| Students | 9,026 | 4,403 | 4,623 |
| Retired, or disabled, or family responsibilities | 18,496 | 5,539 | 12,957 |
| Other | 3,280 | 1,908 | 1,372 |
| Other (according to adjusted unemployed)* | 1,340 | 744 | 596 |
| Labour force participation rate | 52.3 | 62.7 | 42.3 |
| Employment-population ratio | 36.7 | 44.0 | 29.6 |
| Unemployment rate (\%) | 1.1 | 1.0 | 1.3 |
| Unemployment rate (\%) - adjusted definition* | 6.5 | 6.4 | 6.5 |
| Unemployment rate (\%) if 'subsistence work' is classified as unemployed | 33.2 | 33.1 | 33.3 |
| Education |  |  |  |
| School enrollment rates of 6-14 year-olds (\%) | 97.8 | 97.5 | 98.1 |
| Proportion of population aged 15 and older with: secondary education | 74.6 | 74.7 | 74.4 |
| tertiary education | 16.1 | 16.2 | 16.1 |
| secondary qualification | 31.1 | 29.0 | 33.0 |
| tertiary qualification | 3.1 | 3.5 | 2.7 |
| vocational/professional qualification | 9.6 | 9.3 | 9.8 |
| Literacy |  |  |  |
| Proportion of population aged 15-24 who are able to read and write a simple sentence in Tongan or English | 99.4 | 99.3 | 99.7 |

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## EXECUTIVE SUMMARY

The aim of this report is to provide an analysis of the 2011 Tonga census data with a strong emphasis on demographic trends, patterns and levels.

The 2011 census determined that the total population was 103,252 . This compares with 101,991 people in 2006, and represents an increase of $1.3 \%$ or 1,261 people. This population increase represents an average annual growth rate of $0.2 \%$, or an increase of 252 people per year. The 2011 census enumerated 51,979 males and 51,273 females, representing a sex ratio of 101 males per 100 females.

Tongatapu's population was 75,416 , which constitutes $73 \%$ of Tonga's total population. The urban population was 24,229 people ( 24 percent of the total population), and includes the villages of Kolofo'ou, Ma'ufanga, and Kolomotu'a, which are all part of Nuku'alofa, Tongatapu. The average population density was 159 people $/ \mathrm{km}^{2}$. This varies widely between division and district. For example, Tongatapu had 290 people $/ \mathrm{km}^{2}$, while Ongo Niua had only 18 people/km².

The census counted 18,033 private households with 101,969 household members, which represents 5.7 people per household on average. Twenty-two percent of all people that live in private households live in households with 10 or more people, and 3,811 people live in households with 15 or more people.

The 2011 census data show a net flow of people from the outer islands of Vava'u, Ha'apai, 'Eua, and Ongo Niua towards Tongatapu during the intercensal period 2006-2011. However, the main destination of outer island migrants was to overseas locations.

Tonga has a young population with a median age of 21 years. More than one-third ( 37 percent) of the population was younger than 15 years of age, and only $8 \%$ were 60 years and older. The age dependency ratio was calculated using the 15-59 year-old age group as the working age population. For every 100 people of working age, 84 were in the age dependent category.

The number of births was estimated at 2,896 in 2011. This accounts for a crude birth rate (CBR) of 28 per 1000 . The total fertility rate (TFR) - the average number of births per woman - declined from about 4.2 in 2006 to about 3.9 in 2011.

Based on census data for the number of children ever born and still alive, the infant mortality rate (IMR) was estimated at 17; 22 for males and 15 for females. This estimate is similar to 2006 levels. Based on the number of deaths which were reported by the Ministry of Health as having occurred in the years 2008, 2009 and 2010 and the residents of households who were reported as having died in the 12 months preceding the 2011 census, life expectancies at birth were estimated to be 69.3 and 73.1 years for males and females, respectively. Females are expected to live, on average, just under four years longer than males. Based on the derived life tables, a crude death rate (CDR) of 6.8 per 1,000 was calculated.

Net international migration is estimated indirectly by applying the demographic balancing equation to the known 2006-2011 intercensal population growth rate, and estimated crude birth rate (CBR) and crude death rate (CDR). The net migration rate is estimated at -19.2 per 1000 population, which equates to $-1,970$ people per year on average which is -164 people per month during the intercensal period 2006-2011.

Women marry at younger ages than men. The average age at marriage was 27.2 and 24.7 years for males and females, respectively.

Methodism is the dominant religion in Tonga, and $36 \%$ of the population is affiliated with the Free Wesleyan Church. The Church of Latter Day Saints is the second largest, with $18 \%$, followed by the Roman Catholic Church with 15\%, and the Free Church of Tonga ( 12 percent).

The 2011 census questionnaire included a question on smoking habits of the population five years and older. It was found that $19 \%$ of the population smokes on a daily basis, $30 \%$ of males and $8 \%$ of females. Smoking is most prevalent amongst the population aged 25-34 years. In general, about onehalf of all males aged 20-65 smoke on a daily basis, while $13 \%$ of females aged over 20 years smoke on a daily basis.

Data on disabilities indicate that $8 \%$ of the total population reported a disability. The proportion of the population with a disability increases with age, and there is very little difference in the proportion of males and females with a disability. From the age of 50 years the proportion of the population with a disability increases continuously until it reaches about $53 \%$ of people aged 70 years and older. The most commonly mentioned disability was vision, followed by difficulties with walking. Other disabilities were problems hearing, or remembering and/or concentrating. More than 250 people could not walk at all, 152 people reportedly could not remember or concentrate, 70 people were blind and 56 were deaf.

During the two-week period prior to the census, about $5 \%$ of the total population reported a health complaint, illness or injury. The age pattern of people with a health complaint is generally the same as those with a disability (i.e. it increases with age). The vast majority of people with a health complaint sought care, mainly in a public hospital (and less frequently a private doctor). Others self-treated the complaint. Only $2 \%$ cent of all people with a health complaint did not seek any care.

School enrollment data show that $98 \%$ of children in the age group 6-14 years (compulsory school age) were enrolled in schools. School enrollment rates declined rapidly after the age of 15 , and about $15 \%$ of 16 year-olds were not attending school. Girls are slightly less likely than boys to attend primary school across Tonga but there is gender parity at secondary level.

Data on educational attainment indicate that in 2011, about $9 \%$ of the population had only a primary level education. More than $75 \%$ of the population aged 15 and older had a secondary level education, and about $17 \%$ of the population aged 15 and older had a tertiary level education. Educational levels were higher in the urban area than in rural areas. However compared to 2006, educational attainment levels had improved more in rural areas than urban areas due to greater scope for improvement in rural areas.

The proportion of the population aged 15 and older with a secondary educational qualification was $33 \%$ for females and $29 \%$ for males. Around $3 \%$ had a tertiary qualification and $56 \%$ had no qualification at all. About $10 \%$ had a vocational/professional qualification. Higher percentages of the urban population had secondary, vocational/professional and tertiary qualifications than those living in rural areas.

Literacy was measured by a respondent's ability to read and write a simple sentence in Tongan and English. Almost everyone older than 10 years of age was literate in Tongan. Literacy in English was almost as high as Tongan language skills for those aged 10-34 years. English literacy gradually declines as age increases. The literacy rate of 15-25 year-olds was $99 \%$ for both males and females.

Although a high percentage ( 52 percent) of Tonga's population aged 15 years and older was economically active, only $37 \%$ received a regular paid income; this group consisted of $59 \%$ males and $41 \%$ females.

Subsistence work - such as growing or gathering produce or fishing to feed families - was the main activity of $18 \%$ of Tonga's males and $12 \%$ of females aged 15 years and older. About $18 \%$ of the
population aged 15 and older in rural areas where subsistence workers compared with $4 \%$ of the population aged 15 and older in urban areas.

Only 373 people were categorised as being unemployed. However, 39 people did not work because of poor weather conditions, or because they could not afford the transportation costs to work. In addition, 1,901 people did not work and did not look for work, because they believed that no work was available. Using the international standard definition of unemployment, these people were not classified as unemployed because they did not look for work and did not indicate that they were available for work. However, if these 1,940 people were included in the unemployed category, the unemployment rate would increase to $6 \%$ (eight percent in urban areas and six percent in rural areas).

If subsistence workers were included as part of the unemployed - on the grounds that these people would look for work if they believed cash work was available in their labour market community the total unemployment level would increase to 11,862 people, or an unemployment rate of $33 \%$ ( 16 percent in urban areas and 38 percent in rural areas). While the assumption that subsistence workers would look for work if they believed cash work was available may not apply to all subsistence workers, it is likely to apply to a proportion of them. Depending on the definition of unemployment a user of these data may wish to use, the unemployment rate would fall somewhere between $1 \%$ and $33 \%$.

Sixty-seven per cent of all households obtained their drinking water from a cement tank. The second most important source was to obtain water from a neighbour ( 25 percent). Bottled water was used by $4 \%$ of households and piped water was used by $3 \%$ of households.

The most frequently recorded type of toilet facility used by $76 \%$ of all Tongan households was a flush toilet, although there were significant differences by division. While $83 \%$ of all households in Tongatapu had a flush toilet, the percentage was much lower in Ha'apai (47 percent) and Ongo Niua (35 percent).

The main source of lighting in Tonga was from mains electricity supply, used by an average of $89 \%$ of all households, although this percentage varied between $74 \%$ in Ha'apai and $93 \%$ in Tongatapu. There was no mains electricity supply in Ongo Niua. Instead, $40 \%$ of all households relied on kerosene/benzene, and $57 \%$ on solar power for their main lighting source.

The main energy source for cooking for half of all households was gas and its use was most common in Tongatapu, where $60 \%$ of all households relied on it. The percentage of households using gas was much lower in all other divisions, where firewood was the most common energy source for cooking.

About $58 \%$ of all households dispose of their waste by burning. In Tongatapu, $46 \%$ of households used a commercial waste collection. However, outwith Vava'u and Tongatapu, there is no waste collection service. Accordingly, between $86 \%$ (Vava'u) and $96 \%$ (Ongo Niua) of households in the outer islands continue to dispose of waste through burning.

Information on tenure reveals that $69 \%$ of all households owned their dwelling outright, while 5\% rented their dwelling, and another $24 \%$ resided in their dwelling rent-free.

Regarding the availability of household items, a higher proportion of households in Tongatapu (compared with all other divisions) used items such as a hot water system, a motor vehicle, refrigerator, washing machine, TV, video/DVD, computer, and have access to the internet. A bath or shower was availability in all private households across Tonga. Over $90 \%$ of households used mobile telephones in all divisions except for Ongo Niua, where mobile telephones were used by $61 \%$ of households. Ownership of a boat was more common in Vava'u, Ha'apai and Ongo Niua than in Tongatapu.

According to population projections prepared for this report, under the most likely scenario, Tonga's population will increase to about 108,500 people by 2031 . The percentage of the population of working age (15-59) will increase from about $54 \%$ to about $55 \%$ by 2031 . The dependency ratio will decline slightly because of this percentage increase (from 84 to 81 ). The percentage of the population aged 14 years and younger will decline from about $37 \%$ in 2011 to $34 \%$ by 2031 and the percentage of the population aged 60 years and older will increase from about $8 \%$ in 2011 to $11 \%$ by 2031 . The population will age, with median age rising from 21.3 years in 2011 to 22.4 years by 2031. The Tongan government must ensure that adequate support is provided for families to look after their ageing relatives and that provision is made for adequate health care facilities for a growing elderly population.


## 1 INTRODUCTION

This report provides an analysis of the Tonga 2011 census data and, where data are available, presents comparisons with census data from 2006.

### 1.1 Geographic setting

Tonga consists of five administrative divisions: Tongatapu, Vava'u, Ha’apai, 'Eua, and Ongo Niua, spread over an area of $360,000 \mathrm{~km}^{2}$ in the South Pacific with a total land area of $749 \mathrm{~km}^{2}$. It includes 171 islands, of which, about 40 are permanently inhabited. Nuku'alofa, the capital, is located on the island of Tongatapu and is the most populous division, followed by Vava'u, Ha'apai and 'Eua. Ongo Niua is the most remote division and has the smallest population share.

Nuku'alofa lies two degrees north of the tropic of Capricorn and is located: 890 km south of Apia, Samoa; 750 km south-east of Suva, Fiji; and 3,300 km north-east of Brisbane, Australia.

### 1.2 Background to report

This report is a collaborative effort between the Tonga Department of Statistics (TDS) - particularly the Assistant Government Statistician, Sione F. Lolohea and Statistician, Lu'isa Koloamatangi - and Nicholas McTurk of the Statistics for Development Division of the Secretariat of the Pacific Community (SPC). For this purpose, Mr Lolohea and Ms Lu'isa Koloamatangi visited SPC in Noumea, New Caledonia from 25 February to 8 March 2013. Mr Ata'ata Finau, Tonga's Government Statistician, reviewed and commented on the final draft of this report. The report is based on data collected during the population census enumeration, with 30 November 2011 being census day. The main purpose of the report is to:

- provide an analytical overview of the 2011 census results;
- generate interest among Tongan decision-makers and the general public; and
- inform and facilitate sound decision-making by policy-makers.

Data users are encouraged to contact either TDS or SPC's Statistics for Development Division for further information.

| Tonga Department of Statistics | Statistics for Development Division |
| :--- | :--- |
| PO Box 149 | Secretariat of the Pacific Community |
| Nuku'alofa | BP D5, 98848 Noumea Cedex |
| Tonga | New Caledonia |
| Telephone: +67623300 | Telephone: +687262000 |
| Facsimile: +67623303 | Facsimile: +687263818 |
| Email: dept@stats.gov.to | Email: $\underline{\text { sdd @spc.int }}$ |
| http://www.spc.int/prism/Country/TO/stats/ | $\underline{\text { http://www.spc.int }}$ |

# 2 POPULATION SIZE, TREND, DISTRIBUTION AND STRUCTURE 

### 2.1 Population size and trend

The population of Tonga, as enumerated on 30 November 2011, was 103,252 people: 51,979 males and 51,273 females. This is an increase of 1,261 people in five years - the 2006 population was 101,991 - and represents an annual rate of growth of $0.2 \%$.

Figure 1: Total population size, Tonga: 1901-2011


Tonga's population has steadily increased since 1901 when the first census was conducted (Fig. 1). Between the 1930's and 1970's, growth was at its strongest, when at times the population increased by more than 2,000 people per year (Fig. 2). From the 1970 's until the 2011 census, the population increased only very slowly with an annual growth rate of less than $0.4 \%$ (about 375 people per year).

Figure 2: Intercensal average annual population change (in numbers), Tonga: 1901-2011


Population growth has varied extensively by division and district (Table 1, Fig. 3). While Tonga's overall growth rate between the 2006 and 2011 censuses was $0.2 \%$ per annum, Tongatapu's population grew at a rate of $0.9 \%$. By contrast, all other divisions experienced negative growth (i.e. population loss). Rates of population decline in the outer Islands were stronger in the 2006 to 2011 intercensal period than were experienced during the 1996 to 2006 intercensal period.

Figure 3: Average annual population growth rate (\%) by division, Tonga: 2006-2011


Ongo Niua's population experienced a negative annual growth rate of $-5.2 \%$; its population decreased from 1,665 in 2006 to 1,282 in 2011 (Table 1). Most of the population decline was in the district of Niua Toputapu, which experienced a negative annual growth rate of $-5.9 \%$. Niua Toputapu population decreased from 1,019 in 2006 to 759 in 2011. Some of this depopulation can be attributed to the tsunami which struck the island on 29 September 2009. This contrasts with an earlier negative annual growth rate of $-2.3 \%$ on Niua Toputapu between 1996 and 2006.

Other districts that experienced higher rates of population decline between the 2006 and 2011 censuses were Pangai ( -4.2 percent) and Ha'ano ( -3.8 percent) in Ha'apai and Leimatu'a (-2.4 percent) in Vava'u.

Compared with the 1996 to 2006 intercensal period, there were fewer districts growing quickly during the 2006 to 2011 intercensal period. However, Nukunuku's rate of growth increased from $1 \%$ per annum between 1996 and 2006 to $2.5 \%$ per annum between 2006 and 2011. Kolomotu'a's rate of growth increased from $0.9 \%$ to $1.5 \%$. Both districts are situated on Tongatapu. Motu in Vava'u had a positive annual growth rate of $2.5 \%$ between 2006 and 2011. This growth reversed a trend of population decline since 1986.

Table 1: Total population size and growth by division and district, Tonga: 1996, 2006 and 2011

| Division/District | Census total population |  |  | Population change |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | (in numbers) |  | (in \%) |  | (Annual growth rate) |  |
|  | 1996 | 2006 | 2011 | 1996-2006 | 2006-2011 | 1996-2006 | 2006-2011 | 1996-2006 | 2006-2011 |
| TONGA | 97,784 | 101,991 | 103,252 | 4,207 | 1261 | 4.3 | 1.2 | 0.4 | 0.2 |
| Tongatapu | 66,979 | 72,045 | 75,416 | 5,066 | 3371 | 7.6 | 4.7 | 0.7 | 0.9 |
| Kolofo'ou | 16,953 | 18,463 | 18,957 | 1,510 | 494 | 8.9 | 2.7 | 0.9 | 0.5 |
| Kolomotu'a | 14,451 | 15,848 | 17,088 | 1,397 | 1240 | 9.7 | 7.8 | 0.9 | 1.5 |
| Vaini | 11,180 | 12,594 | 12,949 | 1,414 | 355 | 12.6 | 2.8 | 1.2 | 0.6 |
| Tatakamotong | 6,828 | 6,969 | 7,233 | 141 | 264 | 2.1 | 3.8 | 0.2 | 0.7 |
| Lapaha | 7,370 | 7,255 | 7,380 | -115 | 125 | -1.6 | 1.7 | -0.2 | 0.3 |
| Nukunuku | 6,160 | 6,820 | 7,733 | 660 | 913 | 10.7 | 13.4 | 1.0 | 2.5 |
| Kolovai | 4,037 | 4,096 | 4,076 | 59 | -20 | 1.5 | -0.5 | 0.1 | -0.1 |
| Vava'u | 15,715 | 15,505 | 14,922 | -210 | -583 | -1.3 | -3.8 | -0.1 | -0.8 |
| Neiafu | 5,650 | 5,787 | 5,774 | 137 | -13 | 2.4 | -0.2 | 0.2 | 0.0 |
| Pangaimotu | 1,298 | 1,412 | 1,325 | 114 | -87 | 8.8 | -6.2 | 0.8 | -1.3 |
| Hahake | 2,291 | 2,422 | 2,297 | 131 | -125 | 5.7 | -5.2 | 0.6 | -1.1 |
| Leimatu'a | 2,753 | 2,742 | 2,436 | -11 | -306 | -0.4 | -11.2 | 0.0 | -2.4 |
| Hihifo | 2,375 | 2,267 | 2,105 | -108 | -162 | -4.5 | -7.1 | -0.5 | -1.5 |
| Motu | 1,348 | 875 | 985 | -473 | 110 | -35.1 | 12.6 | -4.3 | 2.4 |
| Ha'apai | 8,138 | 7,570 | 6,616 | -568 | -954 | -7.0 | -12.6 | -0.7 | -2.7 |
| Pangai | 2,966 | 2,967 | 2,410 | 1 | -557 | 0.0 | -18.8 | 0.0 | -4.2 |
| Foa | 1,434 | 1,479 | 1,359 | 45 | -120 | 3.1 | -8.1 | 0.3 | -1.7 |
| Lulunga | 1,282 | 1,075 | 1,055 | -207 | -20 | -16.1 | -1.9 | -1.8 | -0.4 |
| Mu'omu'a | 735 | 630 | 609 | -105 | -21 | -14.3 | -3.3 | -1.5 | -0.7 |
| Ha'ano | 773 | 619 | 511 | -154 | -108 | -19.9 | -17.4 | -2.2 | -3.8 |
| 'Uiha | 948 | 800 | 672 | -148 | -128 | -15.6 | -16.0 | -1.7 | -3.5 |
| 'Eua | 4,934 | 5,206 | 5,016 | 272 | -190 | 5.5 | -3.6 | 0.5 | -0.7 |
| 'Eua Motu'a | 2,766 | 2,949 | 2,852 | 183 | -97 | 6.6 | -3.3 | 0.6 | -0.7 |
| 'Eua Fo'ou | 2,168 | 2,257 | 2,164 | 89 | -93 | 4.1 | -4.1 | 0.4 | -0.8 |
| Ongo Niua | 2,018 | 1,665 | 1,282 | -353 | -383 | -17.5 | -23.0 | -1.9 | -5.2 |
| Niua Toputapl | 1,283 | 1,019 | 759 | -264 | -260 | -20.6 | -25.5 | -2.3 | -5.9 |
| Niua Fo'ou | 735 | 646 | 523 | -89 | -123 | -12.1 | -19.0 | -1.3 | -4.2 |

### 2.2 Population distribution

In 2011, $73 \%$ of Tonga's population was living in Tongatapu, a small increase from 2006 when $71 \%$ lived there. The proportion of Tonga's population that lived in Vava'u was $15 \%$, Ha'apai $6 \%$, 'Eua $5 \%$, and Ongo Niua $1 \%$ (Fig 4). The percentages living in Vava'u was also $15 \%$ and in 'Eua was also $5 \%$ in 2006. However, Ha'apai and Ongo Niua had $7 \%$ and $2 \%$ of the total population respectively in 2006.

Figure 4: Population distribution by Division (\%), Tonga: 2011


## Urban-rural

Slightly over $23 \%$ of Tonga's population lived in the three urban districts of Kolofo'ou, Kolomotu'a, and Ma'ufanga, which together form the township of Nuku'alofa, Tongatapu. The urban-rural split in the population has remained stable since 2006.

### 2.3 Population density

According to the 2011 census, Tonga's average population density was 159 people $/ \mathrm{km}^{2}$, an increase from 150 in 1996 and 157 in 2006 (Table 2).

Population density varied widely by division. While there were 290 people $/ \mathrm{km}^{2}$ in Tongatapu, there were only 18 people per/km² in Ongo Niua. Between 1996 and 2011, the population density in Tongatapu has been steadily increasing, while the population density in 'Eua has stayed about the same and the population density in Vava'u, Ha'apai and Ongo Niua has fallen. The largest decline in density has been in Ha'apai (by 13 people $/ \mathrm{km}^{2}$ ).

Table 2: Population density (number of people/km²) by division, Tonga: 1996, 2006 and 2011

| Division | land area | Population density |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  |  | $\mathbf{1 9 9 6}$ | $\mathbf{2 0 0 6}$ | $\mathbf{2 0 1 1}$ |  |
| TONGA | 650 | 150 | 157 | 159 |  |
| Tongatapu | 260 | 257 | 277 | 290 |  |
| Vava'u | 121 | 130 | 128 | 123 |  |
| Ha'apai | 109 | 74 | 69 | 61 |  |
| 'Eua | 87 | 56 | 60 | 57 |  |
| Ongo Niua | 72 | 28 | 23 | 18 |  |

### 2.4 Population structure

A sex ratio of 100 means that there were equal numbers of males and females. A sex ratio lower than 100 means that there were fewer males than females, and a sex ratio higher than 100 means that there were more males than females.

The enumerated 2011 population consisted of 51,979 males and 51,273 females. Males out-numbered females by 706, resulting in a sex ratio of 101 , which means that there were 101 males per 100 females. However, sex ratios varied widely by division (Fig. 5). Figure 5 indicates there were more males than females in all divisions except 'Eua and significantly more males compared to the number of females in Ongo Niua.

Between the 2006 and 2011 censuses, the sex ratio for Tonga declined by two males per 100 females (from 103 males per 100 females). The decline in the number of males per 100 females was largest in Ongo Niua (from 114 to 108 males per 100 females) and 'Eua (from 108 to 100 males per 100 females). Each of the other divisions experienced a decline of one male per 100 females. These declines can be explained by higher rates of out-migration of males than of females from the outer islands, higher rates of overseas migration of males than of females and slower improvements in life expectancy of males than of females.

Figure 5: Sex ratio by division, Tonga: 2011


A population pyramid shows the number of males and females in five-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.

Figure 6 presents population pyramids for Tonga, Tongatapu, Vava'u, Ha'apai. 'Eua and Ongo Niua. The shaded areas show the population count of the 2006 census, while the thickly outlined areas show the population count of the 2011 census. Note that the people counted in the 2011 census were five years older than in the 2006 census, if they were enumerated during both censuses.

Tonga's population pyramid has a wide base and narrower bars represent smaller counts as age increases, meaning that a large percentage of people are in the younger age groups. Such a population structure is associated with relatively high fertility rates (i.e. high numbers of births per woman).

Tongatapu's population pyramid looks similar to that of Tonga's total population pyramid. However, the pyramids of Vava'u, Ha'apai, 'Eua and Ongo Niua are characterized by a distinctly smaller proportion of people aged $20-34$ (in 2006 and even more-so in 2011). This is the result of outmigration of young people from the outer islands (rural areas) to Tongatapu or overseas.

The narrowing of the population bar of the 0-4 year-olds relative to the population bar of the 5-9 year-olds in Vava'u, Ha'apai, 'Eua and especially in Ongo Niua is attributable to declining fertility and out-migration of some of the children of the people aged $20-34$ who have left the outer Islands for Tongatapu or overseas.

The general population decline in Vava'u, Ha'apai and Ongo Niua is illustrated by smaller thickly outlined bars, representing the size of the age groups in 2011 compared with the generally larger shaded bars that represent the size of these age groups in 2006.

Figure 6: Population pyramids, Tonga and Divisions: 2006 and 2011

a 2006 (shaded areas); 2011 (outlined areas)

Tonga's population has a young age structure, with $37 \%$ of the population younger than 15 years of age, and only $8 \%$ older than 60 years (Table 3). This is also illustrated by the median age, of 21 years in 2011 (Table 3 and Fig. 7). This means that half of Tonga's population is younger and the other half older than 21 years of age.

Table 3: Population distribution by broad age group, dependency ratio, median age, and sex ratio, Tonga: 2006 and 2011

| Division | Year | Proportion of population by <br> broad age group (in \%) |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :---: |
|  |  |  | Age <br> dependency <br> ratio (15-59) | Median <br> age <br> (years) | Sex ratio <br> (males per <br> $\mathbf{1 0 0}$ <br> females) |  |  |  |
| Tonga | 2006 | 38 | 19 | 35 | 8 | 86 | 21.0 | 103 |
|  | 2011 | 37 | 19 | 36 | 8 | 84 | 21.3 | 101 |
| Tongatapu | 2006 | 38 | 20 | 35 | 8 | 83 | 21.2 | 102 |
|  | 2011 | 37 | 19 | 36 | 8 | 81 | 21.4 | 101 |
| Vava'u | 2006 | 40 | 17 | 34 | 9 | 96 | 20.2 | 104 |
|  | 2011 | 39 | 17 | 34 | 10 | 95 | 20.7 | 103 |
| Ha'apai | 2006 | 38 | 18 | 34 | 10 | 91 | 20.9 | 107 |
|  | 2011 | 38 | 17 | 36 | 10 | 90 | 21.8 | 106 |
| Ongo Niua | 2006 | 40 | 18 | 34 | 8 | 91 | 19.7 | 108 |
|  | 2011 | 39 | 17 | 36 | 8 | 90 | 20.8 | 100 |

Population age structures change gradually over time and accordingly there is little difference in median ages at the Tonga level between the 2006 and 2011 censuses. However, as a result of outmigration of young adults, the median ages were higher in the divisions of Vava'u, Ha'apai, 'Eua and particularly in Ongo Niua in 2011 as compared to 2006.

Figure 7: Median age by division, Tonga: 2011


In Tonga, 19\% of the population was between 15 and 24 years of age (the youth population) (Fig. 8). The highest proportion of youth was found in Tongatapu (19 percent) and the lowest proportion was in Ongo Niua ( 15 percent).

Figure 8: Total population by proportion of Youth population aged 15-24 years, Tonga: 2011


A common way to describe a population's age structure is via the age dependency ratio, which compares the economically dependent component of a country's population with its productive component. This is conventionally expressed as the ratio of young people ( $0-14$ years) and old people ( 60 years and over) to 100 people of working age ( $15-59$ years). A higher dependency ratio means that a larger young and elderly population requires material support by the working age population and a lower dependency ratio means that the working age population has a smaller young and elderly population to support.

Figure 9: Age dependency ratio by division, Tonga: 2011


Tonga's dependency ratio in 2011 was 84 , meaning that for every 100 people of working age, 84 people were in the age dependent category (Table 3 and Fig. 9). In 2011, the dependency ratio had decreased by two, from 86 in 2006.

The most favorable dependency ratio can be found in Tongatapu with only 81 dependent people per 100 people of working age. Dependency ratios were higher in the outer islands. Vava'u had the highest dependency ratio of 95 , meaning that there were almost as many young ( $0-14$ years) and old people (60 years and older), as people aged 15-59 years.

Between the 2006 and 2011 censuses the dependency ratio declined in all divisions (Table 3). The smallest decline was in Vava'u (from 96 in 2006 to 95 in 2011) and the largest decline was in Ongo Niua (from 96 in 2006 to 87 in 2011).

## 3 DEMOGRAPHIC COMPONENTS

### 3.1 Fertility

This section presents the following fertility indicators:

- the Age Specific Fertility Rate (ASFR) is the number of births to women of a particular age group during a specific time period;
- the Total Fertility Rate (TFR) is the average number of children that would be born to a woman during her childbearing years $(15-49)$ if she were to pass through all her childbearing years conforming to the age-specific fertility rates of a specific time period;
- the Crude Birth Rate (CBR) is the number of live births per 1,000 population in a specific time period;
- the Teenage Fertility Rate relates to child-bearing among women aged 15-19, and is synonymous with the ASFR (15-19);
- Mean Age at Childbearing (MAC) refers to the mean age of mothers at the birth of their children if women were subject throughout their lives to the ASFR observed in a specific time period.


### 3.1.1 Census data

In order to determine the level and pattern of fertility in Tonga, women over 15 years of age were asked the following questions:

- How many children they had born alive
- When their last child was born.

The total number of children born alive to 32,928 women aged 15 years and older was 89,827 (Table 4). The average number of children born alive to all women (average parity) was 2.7 children per woman.

Table 4: Female population aged 15 and older by number of children ever born alive, Tonga: 2011

| Age of women | Number of women | Number of Children ever born |  |  | Average number of children ever born |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Males | Females | Total | Males | Females | Total |
| 15-19 | 5,292 | 94 | 88 | 182 | 0.0 | 0.0 | 0.0 |
| 20-24 | 4,099 | 1,021 | 926 | 1,947 | 0.2 | 0.2 | 0.5 |
| 25-29 | 4,015 | 3,133 | 2,730 | 5,863 | 0.8 | 0.7 | 1.5 |
| 30-34 | 3,317 | 4,279 | 4,005 | 8,284 | 1.3 | 1.2 | 2.5 |
| 35-39 | 2,972 | 5,330 | 4,788 | 10,118 | 1.8 | 1.6 | 3.4 |
| 40-44 | 2,864 | 6,021 | 5,679 | 11,700 | 2.1 | 2.0 | 4.1 |
| 45-49 | 2,214 | 5,221 | 4,640 | 9,861 | 2.4 | 2.1 | 4.5 |
| 50-54 | 1,921 | 4,591 | 4,103 | 8,694 | 2.4 | 2.1 | 4.5 |
| 55-59 | 1,637 | 4,121 | 3,857 | 7,978 | 2.5 | 2.4 | 4.9 |
| 60-64 | 1,308 | 3,603 | 3,267 | 6,870 | 2.8 | 2.5 | 5.3 |
| 65-69 | 1,133 | 3,056 | 2,865 | 5,921 | 2.7 | 2.5 | 5.2 |
| 70-74 | 889 | 2,524 | 2,333 | 4,857 | 2.8 | 2.6 | 5.5 |
| 75+ | 1,267 | 3,889 | 3,661 | 7,550 | 3.1 | 2.9 | 6.0 |
| Total | 32,928 | 46,884 | 42,943 | 89,827 | 1.4 | 1.3 | 2.7 |

Note: includes 5 women with age not stated and their children
Average parity increases with the age of women. While women 15-19 years of age had only very few children, women aged 45-49 had 4.5 children, and women older than 70 years of age had on average six children. The average parities of women over 49 years of age 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 their childbearing years.

The census also included questions on whether a mother's children lived in her household or elsewhere, which was further specified by whether they lived in households in Tonga or overseas (Fig. 10). The proportion of children living in their mother's household decreased with the age group of mothers, because as children grow older they leave their parents' home and form their own household. More than $40 \%$ of children of mother's aged 70 years and older live overseas.

Figure 10: Proportion of children ever born and whether mother's children live in the same household as mother, Tonga: 2011


From the question on the date of birth of the last born child, the number of births per year or period can be calculated (Table 5).

Table 5: Reported number of births during one-year period before the census (1 December 2010-30 November 2011) by age group of women, Tonga: 2011

| Age <br> group of <br> women | Number <br> of <br> women | Number of children |  |  |  |
| :---: | ---: | :---: | :---: | :---: | :---: |
|  | Males | Females | Total |  |  |
| $15-19$ | 5,292 | 52 | 57 | 109 | 0.0206 |
| $20-24$ | 4,099 | 297 | 254 | 551 | 0.1344 |
| $25-29$ | 4,015 | 441 | 414 | 855 | 0.2130 |
| $30-34$ | 3,317 | 326 | 262 | 588 | 0.1773 |
| $35-39$ | 2,972 | 194 | 173 | 367 | 0.1235 |
| $40-44$ | 2,864 | 75 | 64 | 139 | 0.0485 |
| $45-49$ | 2,214 | 9 | 8 | 17 | 0.0077 |
| $50-54$ | 1,921 | 1 | 0 | 1 | 0.0005 |
| Total | 26,694 | 1,395 | 1,232 | $\mathbf{2 , 6 2 7}$ | TFR $^{2}=\mathbf{3 . 6}$ |

${ }^{1}$ Age Specific Fertility Rate
${ }^{2}$ Total Fertility Rate
Responses from women during the 2011 census indicate that 2,627 children were born during the oneyear period before the census, between December 2010 and November 2011 (Table 5). However, this count compares to 2,720 children younger than one year of age enumerated during the census. The Tonga Ministry of Health reported that 2,766 births had occurred during 2011. Mismatches in counts
suggest that a sizeable number of women did not report the birth of their child during the year before the census, or did not accurately report the exact date of birth of her children.

In order to estimate Tonga's fertility rate, this analysis relies on indirect estimation techniques, based on census data of the number of children ever born by age of women, and the number of children born during the year before the census by age of women as reported in the census. The demographic indicator most commonly used to describe a country's fertility situation is called the total fertility rate (TFR). It is calculated from the number of live births by age of women in a given year - the agespecific fertility rates (ASFRs).

Fertility estimates are based on 2006 and 2011 census data, to which the Arriaga method, which measures fertility based on data at two points in time, was applied. The software PAS of the United States Bureau of Census (procedure ARFE-2) and the software MORTPAK 4.1 of the United Nations (procedure FERTPF) were used. Both of these methods estimated virtually identical fertility rates. FERTPF and ARFE-2 output can be found in Appendices 1 and 2.

The Arriaga method calculates age specific fertility based on an average of the adjustment factors for women aged 20-34, the age group for which women's reported fertility is assumed to be most accurate. Using the Arriaga method, Tonga's TFR was estimated at 3.9 in 2011 (Table 6). There has been a small decline in TFR compared to 2006, when the TFR was 4.2.

During the 15-year period, 1996-2011, there have been shifts in the fertility pattern by age group of women (Fig. 11). The teenage fertility rate increased slightly from 21 in 1996 to 25 in 2006 and to 30 in 2011 (i.e. 30 births per 1,000 women aged 15-19). However, fertility rates were similar in 1996, 2006 and 2011 up to age group 25-29. In 1996 and 2011, women aged 25-29 had peak fertility, whereas in 2006 peak fertility was at age group $30-34$. The most noticeable transition is that fertility rates are lower for women aged between 30 and 40 in 2011 than at the time of the 1996 and 2006 censuses. Fertility levels of women aged 45-49 remain consistently low.

Figure 11: Age-specific fertility rates (ASFRs), Tonga: 1996, 2006 and 2011


[^1]The number of births by age group of women during the one-year period before the 2011 census can be calculated by multiplying the estimated ASFR by the enumerated number of women by age group in the census. In total 2,896 births were estimated to have occurred during the one-year prior to the census (Table 6).

Table 6: Estimated/adjusted age-specific fertility rate (ASFR), total fertility rate (TFR), and mean age at childbearing (MAC), Tonga: 2011

| Age <br> group of <br> women | Number of women | Estimated ASFR | Estimated number of births |  |
| :---: | ---: | ---: | :--- | :---: |
| 15-19 | 5,292 | 0.0300 | 159 |  |
| $20-24$ | 4,099 | 0.1601 | 656 |  |
| $25-29$ | 4,015 | 0.2336 | 938 |  |
| $30-34$ | 3,317 | 0.1867 | 619 |  |
| $35-39$ | 2,972 | 0.1266 | 376 |  |
| $40-44$ | 2,864 | 0.0465 | 133 |  |
| $45-49$ | 2,214 | 0.0064 |  |  |
| Total | 24,773 |  | 14 |  |
| TFR | $\mathbf{3 . 9}$ children per woman |  |  |  |
| MAC | $\mathbf{2 9 . 9}$ years |  |  |  |

The crude birth rate (CBR) can then be calculated by dividing the estimated number of births $(2,896)$ by the total 2011 census population $(103,252)$, multiplied by 1,000 :
$\mathbf{C B R}=2,896 / 103,252 \times 1,000=\mathbf{2 8}$ (there were 28 births/ 1,000 population)

### 3.1.2 Fertility estimates based on vital statistics

In order to verify Tonga's fertility rate derived using census data, the following analysis uses Ministry of Health data for occurred male and female births by age of mother and year of birth (Table 7, Fig. 12).

Table 7: Number of births by age of mother and year of occurrence, Tonga: 2009-2011

| Age of <br> mother | $\mathbf{2 0 0 9}$ | $\mathbf{2 0 1 0}$ | $\mathbf{2 0 1 1}{ }^{1}$ |
| :---: | :---: | :---: | :---: |
| $15-19$ | 135 | 146 | 160 |
| $20-24$ | 673 | 700 | 672 |
| $25-29$ | 771 | 811 | 900 |
| $30-34$ | 566 | 571 | 588 |
| $35-39$ | 345 | 347 | 329 |
| $40-44$ | 93 | 112 | 108 |
| $45-49$ | 28 | 5 | 8 |
| Total | $\mathbf{2 , 6 1 1}$ | $\mathbf{2 , 6 9 2}$ | $\mathbf{2 , 7 6 4}$ |

${ }^{1}$ Includes prorated births where age of mother was not stated Source: Tonga Ministry of Health

Figure 12: Number of births by age of mother and year of occurrence, Tonga: 2009-2011


Source: Tonga Ministry of Health

Female population estimates for 30 June 2009, 2010 and 2011 were calculated by means of interpolation between the female populations as recorded on the 2006 and 2011 censuses. Subsequently, the number of births by age of mother in 2009,2010 and 2011 were divided by the estimated female population of the same age groups, in order to calculate ASFRs and TFRs for 2009, 2010 and 2011. Three-year period ASFRs and a TFR were derived for 2009-2011 to reduce the effect of annual fluctuations in births (Table 8).

Table 8: Estimated number of females aged 15-49 and ASFRs by five-year age groups, Tonga: 2009-2011

|  | Estimated number of women |  |  |  | ASFR |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 30-Jun-09 | 30-Jun-10 | 30-Jun-11 |  | 30-Jun-09 | 30-Jun-10 | 30-Jun-11 | 30 June 09 to 30 June $2011{ }^{1}$ |
| 15-19 | 5,096 | 5,175 | 5,255 |  | 0.026491 | 0.028212 | 0.03042 | 0.0284 |
| 20-24 | 4,306 | 4,217 | 4,131 |  | 0.156293 | 0.165977 | 0.162598 | 0.1616 |
| 25-29 | 3,841 | 3,911 | 3,982 |  | 0.200752 | 0.207384 | 0.22599 | 0.21155 |
| 30-34 | 3,255 | 3,281 | 3,306 |  | 0.173871 | 0.174059 | 0.177921 | 0.1753 |
| 35-39 | 3,041 | 3,012 | 2,983 |  | 0.113452 | 0.115207 | 0.110209 | 0.11297 |
| 40-44 | 2,646 | 2,731 | 2,820 |  | 0.035151 | 0.041005 | 0.038153 | 0.03815 |
| 45-49 | 2,137 | 2,168 | 2,200 |  | 0.013101 | 0.002306 | 0.003657 | 0.00631 |
| Total | 24,350 | 24,523 | 24,697 | TFR | 3.6 | 3.7 | 3.7 | 3.7 |

${ }^{1}$ Calculated using three-years of births data and the mid-point population estimate as the denominator
The TFR is consistent for 2010, 2011 and 2009-2011. The fertility level by age group of mother (ASFR) of the three-year period 2009 to 2011 is shown in Figure 13. Women aged 25-29 produced the most children ( 212 per 1000 women), followed by women aged 30-34 years.

Figure 13: ASFRs based on Ministry of Health births data by year of occurrence, Tonga: 2009-2011


Figure 14 compares the ASFRs for Ministry of Health 2009-2011 data (solid line) with 2011 census data ASFRs calculated indirectly using the Arriaga method (dashed line). It can be seen that adjustment to census data produces more births for women for all age groups except 20-24 year olds. This suggests an undercount of births for all age groups except for mothers aged between 20 and 24 years in Ministry of Health data.

Figure 14: ASFRs based on 2009-2011 Ministry of Health births data by year of occurrence and adjusted 2011 census data. Tonga


Applying the same adjustments to the 2009-2011 Ministry of Health data as were made to 2011 census births data (for all age groups except births to women aged between 20 and 24 years) results in a TFR of 3.9 births per women (Table 9). This value matches the value for 2011 census estimated ASFRs calculated indirectly using the Arriaga method.

Table 9: Adjustment of 2009-2011 Ministry of Health ASFRs, Tonga

| Age group <br> of mother | a. 2011 <br> Census <br> ASFRs (a) | 2011 <br> Census <br> Estimated <br> ASFRs (b) | c. Adjustment <br> factor (b/a) | 2009-2011 <br> MOH ASFRs <br> (d) | Estimated <br> MOH ASFRs <br> (c X d) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $15-19$ | 0.0206 | 0.0300 | 1.4543 | 0.0284 | 0.0413 |
| $20-24$ | 0.1344 | 0.1601 | 1.0000 | 0.1616 | 0.1616 |
| $25-29$ | 0.2130 | 0.2336 | 1.0971 | 0.2116 | 0.2321 |
| $30-34$ | 0.1773 | 0.1867 | 1.0531 | 0.1753 | 0.1846 |
| $35-39$ | 0.1235 | 0.1266 | 1.0256 | 0.1130 | 0.1159 |
| $40-44$ | 0.0485 | 0.0465 | 0.9586 | 0.0381 | 0.0366 |
| $45-49$ | 0.0077 | 0.0064 | 1.0000 | 0.0063 | 0.0063 |
| TFR | $\mathbf{3 . 6}$ | $\mathbf{3 . 9}$ | - | $\mathbf{3 . 7}$ | $\mathbf{3 . 9}$ |

### 3.2 Mortality

The questions relating to mortality in the 2011 census were:

- How many live births a woman has ever had, and how many of those born were still alive and/or have died;
- Whether a respondent's marital status was "widowed" (widowhood); and
- Whether any residents of the household died during the last 12 months before the census.

Of all children that were ever born to women 15 years and older $(89,827)$ reported in the 2011 census, $96 \%(86,443)$ were still alive, and 3,384 had died (Table 10).

The proportion of surviving females was slightly higher than that of males (Table 11).

The proportion of surviving children decreases with the age of women (Table 11 and Fig. 15). Whilst $99 \%$ of all children that were ever born to women now aged $20-24$ were still alive, only $97 \%$ of children born to women now aged 45-49 were still alive, and only $90 \%$ of children born to women now aged 75 years and older were still alive. This general trend is explained by the fact that as the age of mothers increases, so does the age of her children.

Table 10: Female population aged 15 and older by number of children ever born, number of children still alive, and number of children dead, Tonga: 2011

| Age of women | Number of women | Number of children ever born |  |  | Number of children |  |  | Number of children dead |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Males | Females | Total | Males | Females | Total | Male | Female | Total |
| 15-19 | 5,293 | 94 | 88 | 182 | 93 | 85 | 178 | 1 | 3 | 4 |
| 20-24 | 4,100 | 1,021 | 926 | 1,947 | 1,007 | 917 | 1,924 | 14 | 9 | 23 |
| 25-29 | 4,016 | 3,133 | 2,730 | 5,863 | 3,060 | 2,695 | 5,755 | 73 | 35 | 108 |
| 30-34 | 3,318 | 4,279 | 4,005 | 8,284 | 4,185 | 3,934 | 8,119 | 94 | 71 | 165 |
| 35-39 | 2,972 | 5,330 | 4,788 | 10,118 | 5,197 | 4,721 | 9,918 | 133 | 67 | 200 |
| 40-44 | 2,864 | 6,021 | 5,679 | 11,700 | 5,861 | 5,557 | 11,418 | 160 | 122 | 282 |
| 45-49 | 2,214 | 5,221 | 4,640 | 9,861 | 5,046 | 4,534 | 9,580 | 175 | 106 | 281 |
| 50-54 | 1,921 | 4,591 | 4,103 | 8,694 | 4,430 | 3,998 | 8,428 | 161 | 105 | 266 |
| 55-59 | 1,637 | 4,121 | 3,857 | 7,978 | 3,944 | 3,758 | 7,702 | 177 | 99 | 276 |
| 60-64 | 1,308 | 3,603 | 3,267 | 6,870 | 3,414 | 3,135 | 6,549 | 189 | 132 | 321 |
| 65-69 | 1,133 | 3,056 | 2,865 | 5,921 | 2,846 | 2,717 | 5,563 | 210 | 148 | 358 |
| 70-74 | 889 | 2,524 | 2,333 | 4,857 | 2,330 | 2,214 | 4,544 | 194 | 119 | 313 |
| 75+ | 1,267 | 3,889 | 3,661 | 7,550 | 3,418 | 3,345 | 6,763 | 471 | 316 | 787 |
| Total | 32,933 | 46,884 | 42,943 | 89,827 | 44,832 | 41,611 | 86,443 | 2,052 | 1,332 | 3,384 |

Table 11: Female population aged 15 and older by proportion of children ever born and still alive, and proportion now dead, Tonga: 2011

| Age of women | Number of women | Proportion of children ever born still alive |  |  | Proportion of children ever born now dead |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Males | Females | Total | Males | Females | Total |
| 15-19 | 5,293 | 98.9 | 96.6 | 97.8 | 1.1 | 3.4 | 2.2 |
| 20-24 | 4,100 | 98.6 | 99.0 | 98.8 | 1.4 | 1.0 | 1.2 |
| 25-29 | 4,016 | 97.7 | 98.7 | 98.2 | 2.3 | 1.3 | 1.8 |
| 30-34 | 3,318 | 97.8 | 98.2 | 98.0 | 2.2 | 1.8 | 2.0 |
| 35-39 | 2,972 | 97.5 | 98.6 | 98.0 | 2.5 | 1.4 | 2.0 |
| 40-44 | 2,864 | 97.3 | 97.9 | 97.6 | 2.7 | 2.1 | 2.4 |
| 45-49 | 2,214 | 96.6 | 97.7 | 97.2 | 3.4 | 2.3 | 2.8 |
| 50-54 | 1,921 | 96.5 | 97.4 | 96.9 | 3.5 | 2.6 | 3.1 |
| 55-59 | 1,637 | 95.7 | 97.4 | 96.5 | 4.3 | 2.6 | 3.5 |
| 60-64 | 1,308 | 94.8 | 96.0 | 95.3 | 5.2 | 4.0 | 4.7 |
| 65-69 | 1,133 | 93.1 | 94.8 | 94.0 | 6.9 | 5.2 | 6.0 |
| 70-74 | 889 | 92.3 | 94.9 | 93.6 | 7.7 | 5.1 | 6.4 |
| 75+ | 1,267 | 87.9 | 91.4 | 89.6 | 12.1 | 8.6 | 10.4 |
| Total | 32,933 | 95.6 | 96.9 | 96.2 | 4.4 | 3.1 | 3.8 |

Figure 15: Proportion of children ever born and still alive by age of mother, Tonga: 2011


A comparison of data on children ever born and still alive from the 2006 and 2011 censuses (Fig. 16) shows that there have been improvements for females in most age groups, but that this was not the case for males aged 25 and older.

Figure 16: Proportion of children ever born and still alive by age of mother, Tonga: 2006 and 2011


Using the 2011 census data on children ever born and children surviving by age group of mother, early childhood mortality rates were calculated using the United Nations software package MORTPAK 4.1, procedure CEBCS (Table 12 and Apps. 3 and 4).

Table 12: Early childhood mortality indicators, Tonga: 2011

| Indicator | Total | Males | Females |
| :---: | :---: | :---: | :---: |
| Infant mortality rate (IMR) | 17 | 22 | 15 |
| Child mortality rate $\left(4 \mathrm{q} 1^{1}\right)$ | 3 | 4 | 2 |
| Under 5 mortality rate $\left(\mathrm{q}^{2}\right)$ | 20 | 26 | 17 |

[^2]The infant mortality rate (IMR) measures the number of deaths of children under one year of age per 1,000 live births. The IMR for 2011 was estimated at 22 and 15 for males and females, respectively, about the same rates as in 2006.

Child mortality, the probability of dying between one and five years of age, was estimated at four male deaths and two female deaths per 1,000 people of that age.

Under five mortality, the probability of dying between birth and five years of age, was estimated at 26 and 17 for males and females, respectively, per 1,000 people.

Based on the number of deaths which were reported by the Ministry of Health as having occurred in the years 2008, 2009 and 2010 and the residents of households who were reported in the 2011 census as having died in the 12 months preceding the census (App. 5), an average annual number of deaths by age and sex for the period 2008 to 2011 was calculated. Average age specific death rates (m(x)) were derived by dividing these ASDRs by the estimated mid-point population - 14 December 2009.

Subsequently the derived age specific death rates were adjusted by the estimated child mortality rates that were derived using census information on children ever born and still alive (see above). Based on these data, a life table was constructed for males and females (Tables 14 and 15) using MORTPAK 4.1 procedure LIFTB. According to the assumptions made and the procedures and methods used, life expectancy at birth was calculated at 69.3 and 73.1 years for males and females, respectively (Table 13). This compares with estimates of 67.3 and 73.0 years for males and females in 2006 and with 67.6 and 70.5 years for males and females, respectively in 1996. In fifteen years, life expectancy for males is estimated to have increased by 1.7 years for males and by 2.6 years for females. These increases are demographically plausible for Tonga.

The derived mortality pattern (ASDR) was compared with the different Coale-Demeny and United Nations model life tables using MORTPAK 4.1 procedure COMPAR. The assumption was made that possible under-registration of deaths is not age specific and therefore did not affect the overall pattern of mortality. It was found that the Far East Asian pattern of the UN model life tables resembles most closely the empirical mortality pattern of Tongan males, while the Coale-Demeny West model better resembles the pattern for females.

The total number of deaths in 2011 can be estimated by multiplying the estimated age specific death rates [ $\mathrm{m}(\mathrm{x}, \mathrm{n})$-values] of the derived male and female life tables (Tables 14 and 15) with the 2011 census male and female population specified by age (App. 6). Subsequently the crude death rate (CDR) can be calculated as follows:
$\mathbf{C D R}=699 / 103,252 \times 1,000=\mathbf{6 . 8}$ (there were 6.8 deaths per 1,000 population in 2011)

Table 13: General mortality indicators, Tonga: 2011

| Indicator | Total | Male | Female |
| :--- | :---: | :---: | :---: |
| Life expectancy at birth e(0) | 71.2 | 69.3 | 73.1 |
| Crude Death Rate (CDR) | 6.8 | 7.2 | 6.3 |

Table 13 illustrates more positive mortality indicators for females than for males in 2011, with females living on average 3.8 years longer than males and the CDR for males exceeding the CDR for females by almost one death per 1,000 persons. However, the advantage in life expectancy for females as compared to males declined by 1.9 years between 2006 and 2011. Similarly, the advantage in CDR for females as compared to males declined by 0.8 deaths per 1000 persons between 2006 and 2011.

Table 14: Abridged life table, Tonga males: 2011

| Age | m(x,n) | $q(x, n)$ | I(x) | $\mathrm{d}(\mathrm{x}, \mathrm{n})$ | L( $\mathrm{x}, \mathrm{n}$ ) | $\mathrm{S}(\mathrm{x}, \mathrm{n})$ | T(x) | e(x) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 0.0224 | 0.0220 | 100,000 | 2,200 | 98,033 | 0.9766 | 6,933,417 | 69.3 |
| 1 | 0.0010 | 0.0040 | 97,800 | 391 | 390,256 | 0.9967 | 6,835,384 | 69.9 |
| 5 | 0.0003 | 0.0015 | 97,409 | 146 | 486,679 | 0.9984 | 6,445,129 | 66.2 |
| 10 | 0.0004 | 0.0018 | 97,263 | 175 | 485,876 | 0.9969 | 5,958,450 | 61.3 |
| 15 | 0.0009 | 0.0046 | 97,088 | 447 | 484,390 | 0.9957 | 5,472,574 | 56.4 |
| 20 | 0.0008 | 0.0038 | 96,641 | 367 | 482,323 | 0.9945 | 4,988,184 | 51.6 |
| 25 | 0.0015 | 0.0074 | 96,274 | 712 | 479,668 | 0.9929 | 4,505,861 | 46.8 |
| 30 | 0.0013 | 0.0066 | 95,561 | 631 | 476,281 | 0.9916 | 4,026,193 | 42.1 |
| 35 | 0.0022 | 0.0110 | 94,931 | 1,044 | 472,276 | 0.9851 | 3,549,913 | 37.4 |
| 40 | 0.0040 | 0.0196 | 93,886 | 1,840 | 465,240 | 0.9740 | 3,077,637 | 32.8 |
| 45 | 0.0067 | 0.0329 | 92,046 | 3,028 | 453,167 | 0.9609 | 2,612,396 | 28.4 |
| 50 | 0.0094 | 0.0462 | 89,018 | 4,113 | 435,428 | 0.9412 | 2,159,229 | 24.3 |
| 55 | 0.0151 | 0.0731 | 84,905 | 6,207 | 409,826 | 0.9148 | 1,723,801 | 20.3 |
| 60 | 0.0207 | 0.0984 | 78,699 | 7,744 | 374,897 | 0.8827 | 1,313,975 | 16.7 |
| 65 | 0.0299 | 0.1394 | 70,955 | 9,891 | 330,934 | 0.8383 | 939,078 | 13.2 |
| 70 | 0.0429 | 0.1947 | 61,064 | 11,889 | 277,431 | 0.7167 | 608,144 | 10.0 |
| 75 | 0.0963 | 0.3893 | 49,175 | 19,144 | 198,839 | 0.3988 | 330,712 | 6.7 |
| 80 | 0.2277 | ... | 30,031 | 30,031 | 131,873 | $\ldots$ | 131,873 | 4.4 |

Table 15: Abridged life table, Tonga females: 2011

| Age | $\mathrm{m}(\mathrm{x}, \mathrm{n})$ | $q(x, n)$ | I(x) | $\mathrm{d}(\mathrm{x}, \mathrm{n})$ | L( $\mathrm{x}, \mathrm{n}$ ) | $\mathrm{S}(\mathrm{x}, \mathrm{n})$ | T(x) | e(x) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 0.0152 | 0.0150 | 100,000 | 1,500 | 98,628 | 0.9843 | 7,307,646 | 73.1 |
| 1 | 0.0005 | 0.0020 | 98,500 | 197 | 393,529 | 0.9982 | 7,209,018 | 73.2 |
| 5 | 0.0002 | 0.0010 | 98,303 | 98 | 491,269 | 0.9989 | 6,815,489 | 69.3 |
| 10 | 0.0003 | 0.0013 | 98,205 | 128 | 490,704 | 0.9986 | 6,324,220 | 64.4 |
| 15 | 0.0003 | 0.0017 | 98,077 | 167 | 489,994 | 0.9979 | 5,833,515 | 59.5 |
| 20 | 0.0005 | 0.0027 | 97,910 | 264 | 488,956 | 0.9960 | 5,343,522 | 54.6 |
| 25 | 0.0011 | 0.0056 | 97,646 | 547 | 486,983 | 0.9933 | 4,854,566 | 49.7 |
| 30 | 0.0016 | 0.0078 | 97,099 | 757 | 483,699 | 0.9910 | 4,367,583 | 45.0 |
| 35 | 0.0021 | 0.0105 | 96,342 | 1,012 | 479,349 | 0.9859 | 3,883,884 | 40.3 |
| 40 | 0.0036 | 0.0177 | 95,330 | 1,687 | 472,603 | 0.9826 | 3,404,535 | 35.7 |
| 45 | 0.0035 | 0.0176 | 93,643 | 1,648 | 464,370 | 0.9723 | 2,931,932 | 31.3 |
| 50 | 0.0083 | 0.0406 | 91,995 | 3,735 | 451,519 | 0.9500 | 2,467,562 | 26.8 |
| 55 | 0.0120 | 0.0583 | 88,260 | 5,146 | 428,949 | 0.9350 | 2,016,043 | 22.8 |
| 60 | 0.0151 | 0.0727 | 83,114 | 6,042 | 401,065 | 0.9117 | 1,587,094 | 19.1 |
| 65 | 0.0225 | 0.1066 | 77,072 | 8,216 | 365,666 | 0.8779 | 1,186,029 | 15.4 |
| 70 | 0.0309 | 0.1442 | 68,856 | 9,929 | 321,029 | 0.7926 | 820,363 | 11.9 |
| 75 | 0.0654 | 0.2826 | 58,927 | 16,653 | 254,441 | 0.4904 | 499,334 | 8.5 |
| 80 | 0.1726 | ... | 42,274 | 42,274 | 244,893 | $\ldots$ | 244,893 | 5.8 |

$\mathrm{e}(0)=$ life expectancy at birth
$\mathrm{q}(0)=$ an approximation of the infant mortality rate as calculated in Table 12 (Apps. 3 and 4)
$4 \mathrm{q} 1=$ an approximation of the probability of dying between age one and five years (Table 12, Apps. 3 and 4)

## Widowhood

The number and proportion of females widowed was higher than that of males widowed in Tonga in 2011 (Table 16 and Fig. 17). The proportion of women widowed relative to men widowed begins increasing markedly from the age of 40 and continues to rise in older age groups. This is because female life expectancy is higher (Table 13) and the number of estimated male deaths exceeds the number of estimated female deaths for almost every age group to 75-79 years (App. 6).

Table 16: Population 15 years and older by sex and marital status (widowed), Tonga: 2011

| Age group | Total population |  |  | Widowed population |  |  |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  | Total | Males | Females | Total | Males | Females |
| $15-19$ | 10,969 | 5,675 | 5,292 | 3 | 3 | - |
| $20-24$ | 8,230 | 4,130 | 4,099 | 8 | 3 | 5 |
| $25-29$ | 7,591 | 3,575 | 4,015 | 18 | 5 | 13 |
| $30-34$ | 6,412 | 3,094 | 3,317 | 33 | 6 | 27 |
| $35-39$ | 5,756 | 2,783 | 2,972 | 62 | 17 | 45 |
| $40-44$ | 5,754 | 2,889 | 2,864 | 103 | 24 | 79 |
| $45-49$ | 4,583 | 2,368 | 2,214 | 162 | 32 | 130 |
| $50-54$ | 3,718 | 1,796 | 1,921 | 232 | 48 | 184 |
| $55-59$ | 3,159 | 1,522 | 1,637 | 328 | 71 | 257 |
| $60-64$ | 2,528 | 1,220 | 1,308 | 411 | 91 | 320 |
| $65-69$ | 2,143 | 1,010 | 1,133 | 536 | 124 | 412 |
| $70-74$ | 1,725 | 836 | 889 | 532 | 159 | 373 |
| $75+$ | 2,221 | 954 | 1,267 | 1,104 | 310 | 794 |
| Total | $\mathbf{6 4 , 7 8 9}$ | $\mathbf{3 1 , 8 5 2}$ | $\mathbf{3 2 , 9 2 8}$ | $\mathbf{3 , 5 3 2}$ | $\mathbf{8 9 3}$ | $\mathbf{2 , 6 3 9}$ |

Figure 17: Proportion of population 15 years and older by sex and marital status (widowed), Tonga: 2011


### 3.3 Migration

### 3.3.1 Internal migration

Internal migration - the movement of people from one division of Tonga to another - can be estimated by comparing:

- Place of residence one year prior to the census with the place of residence during the census enumeration, and/or;
- place of residence five years prior to the census with the place of residence during the census enumeration and/or;
- place of birth with the place of residence during the census enumeration.

Based on the question regarding place of residence in 2010 (one year prior to the census), $(94,040)$ $94 \%$ of the total population one year and older answered that they had not moved to their division of residence during the year prior to census night; $3 \%$ ( 3,551 people) said that they lived elsewhere in Tonga, and 2,695 people (three percent) said that they were overseas (Table 17).

Table 17: Population by place of enumeration and usual residence one year ago (in 2010), Tonga: 2011

| enumerat time of $\mathbf{t}$ Cens | of at the 2011 us | Usual residential address one year prior to the 2011 Census |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Division | Total | Tongatapu | Vava'u | Ha'apai | 'Eua | Ongo Nuia | Not born ${ }^{2}$ | Overseas | N/S |
| Tongatapu | 75,281 | 69,341 ${ }^{1}$ | 817 | 479 | 211 | 139 | 2,084 | 2,206 | 4 |
| Vava'u | 14,884 | 575 | $13,485{ }^{1}$ | 91 | 33 | 25 | 354 | 321 | 0 |
| Ha'apai | 6,607 | 522 | 45 | 5,788 ${ }^{1}$ | 21 | 6 | 168 | 57 | 0 |
| 'Eua | 4,989 | 428 | 32 | 24 | 4,269 ${ }^{1}$ | 8 | 122 | 106 | 0 |
| Ongo Nuia | 1,282 | 75 | 16 | 2 | 2 | 1,157 ${ }^{1}$ | 25 | 5 | 0 |
| Tonga | 103,043 | 70,941 | 14,395 | 6,384 | 4,536 | 1,335 | 2,753 | 2,695 | 4 |

${ }^{1}$ Non-movers i.e. those people who did not change their residence during the reference period
${ }^{2}$ People aged less than one year enumerated in the census
The net impact of migration flows (net migration) is measured as the difference between the number of arrivals (immigrants) and departures (emigrants) between divisions during a certain time period.

## Net migration $=$ Arrivals (immigrants) minus Departures (emigrants)

Therefore if net migration is positive it means that the number of arrivals (immigrants) to a division is higher than the number of departures (emigrants) from that division; if net migration is negative, the number of departures (emigrants) is higher than the number of arrivals (immigrants).

Tongatapu had a net gain of 242 people from Vava'u ( 817 minus 575), a net loss of 43 people to Ha'apai ( 479 minus 522), a net loss to 'Eua of 217 people ( 211 minus 428 ), and a net gain of 64 people from Ongo Niua (139 minus 75). The migration flows were in the same direction in the year prior to the 2006 census. However, the most notable differences were that Tongatapu gained 62 additional people from Vava'u in the year prior to the 2011 census as compared to the year prior to the 2006 census and lost 161 more people to 'Eua in the year prior to the 2011 census as compared to the year prior to the 2006 census.

Overall, Tongatapu gained 46 people from all other divisions during the one-year prior to the 2011 census (Table 18). Vava'u had a net loss of 186 people to all other divisions, Eua had the largest net
gain ( 225 people). Ongo Niua had a net loss of 83 people. Compared to the one-year prior to the 2006 census, net migration was 110 people lower to Tongatapu and increased by 159 people to 'Eua in the one-year prior to the 2011 census. Most of the migrants to 'Eua between December 2010 and November 2011 were from Tongatapu.

Table 18: Interregional migration during the one-year period prior to the 2011 census, Tonga: 2011

| Division | In-migrants | Out-migrants | Net migrants |
| :---: | :---: | :---: | :---: |
| Tongatapu | 1,646 | 1,600 | 46 |
| Vava'u | 724 | 910 | -186 |
| Ha'apai | 594 | 596 | -2 |
| 'Eua | 492 | 267 | 225 |
| Ongo Nuia | 95 | 178 | -83 |
| Tonga | $\mathbf{3 , 5 5 1}$ | $\mathbf{3 , 5 5 1}$ | $\mathbf{0}$ |

Based on the question regarding place of residence in 2006 (five years prior to the census) $89 \%$ of the total population aged five years and older answered that they had not moved from their November 2006 division of residence; $7 \%$ ( 5,879 people) said that they lived elsewhere in Tonga, and 3,806 people (four percent) said that they were overseas (Table 19).

Table 19: Population by place of enumeration and usual residence five-years ago (in 2006), Tonga: 2011

|  | of <br> n at the $\text { e } 2011$ | Usual residential address five years prior to the 2011 Census |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Division | Total | Tongatapu | Vava'u | Ha'apai | 'Eua | Ongo Nuia | Not born ${ }^{2}$ | Overseas | N/S |
| Tongatapu | 75,281 | 58,921 ${ }^{1}$ | 1,433 | 942 | 528 | 290 | 9,982 | 3,179 | 6 |
| Vava'u | 14,884 | 755 | 11,520 ${ }^{1}$ | 128 | 91 | 70 | 1,907 | 413 | 0 |
| Ha'apai | 6,607 | 688 | 98 | $4,836{ }^{1}$ | 43 | 15 | 831 | 96 | 0 |
| 'Eua | 4,989 | 532 | 65 | 33 | 3,593 ${ }^{1}$ | 8 | 648 | 110 | 0 |
| Ongo Nuia | 1,282 | 93 | 31 | 12 | 24 | $983{ }^{1}$ | 131 | 8 | 0 |
| Tonga | 103,043 | 60,989 | 13,147 | 5,951 | 4,279 | 1,366 | 13,499 | 3,806 | 6 |

${ }^{1}$ Non-movers i.e. those people who did not change their residence during the reference period
${ }^{2}$ People aged less than five years enumerated in the census
Tongatapu had a net gain of 678 people from Vava'u ( 1,433 minus 755), a net gain from Ha'apai of 254 people ( 942 minus 688 ), a net loss to 'Eua of four people ( 528 minus 532), and a net gain of 197 people from Ongo Niua (290 minus 93). Overall, Tongatapu gained 1,125 people from all other divisions during the five-year period prior to the 2011 census (Table 20). Vava'u had a net loss of 583 people to all other divisions, Ha'apai a net loss of 271 people, Eua a net loss of 48 people and Ongo Niua a net loss of 223 people.

The direction and magnitude of migration flows during the five years prior to the 2006 census and the five years prior to the 2011 census were largely consistent, with the outer island divisions losing population and Tongatapu gaining population. Comparison of Tables 18 and 20 shows that given their close proximity, the migration flows between 'Eua and Tongatapu are likely to be cyclical, compared to the one-way traffic between the more distant outer islands and Tongatapu. 'Eua experienced a net gain that was five-times as large in a single year as the net losses experienced over the 2006-2010 period - annual net flows balance to smaller net flows over five years.

Table 20: Interregional migration during the five-year period prior to the 2011 census, Tonga: 2011

| Division | In-migrants | Out-migrants | Net migrants |
| :---: | :---: | :---: | :---: |
| Tongatapu | 3,193 | 2,068 | 1,125 |
| Vava'u | 1,044 | 1,627 | -583 |
| Ha'apai | 844 | 1,115 | -271 |
| 'Eua | 638 | 686 | -48 |
| Ongo Nuia | 160 | 383 | -223 |
| Tonga | $\mathbf{5 , 8 7 9}$ | $\mathbf{5 , 8 7 9}$ | $\mathbf{0}$ |

Data on lifetime migration (number of people by place of residence and place of birth) also indicate that the direction of internal migration flows was mainly towards Tongatapu.

Seventy-five percent of Tonga's population was living at the same place where they were born; $20 \%$ ( 20,824 people) of Tonga's population were born in Tonga but do not reside in their current (November 2011) division of residence, and $5 \%$ of the population ( 4,647 people) was born overseas (Table 21).

Table 21: Population by place of residence in 2011 and place of birth (lifetime migration), Tonga: 2011

| Place <br> enumerati time of $t$ Cens | of <br> nat the <br> 2011 <br> us | Place of birth |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Division | Total | Tongatapu | Vava'u | Ha'apai | 'Eua | Ongo Nuia | Overseas | N/S |
| Tongatapu | 75,416 | 56,599 ${ }^{1}$ | 6,039 | 5,724 | 1,563 | 1,483 | 3,975 | 33 |
| Vava'u | 14,922 | 1,753 | $11,940{ }^{1}$ | 528 | 106 | 157 | 437 | 1 |
| Ha'apai | 6,616 | 973 | 372 | 5,035 ${ }^{1}$ | 79 | 55 | 102 | 0 |
| 'Eua | 5,016 | 1,016 | 244 | 251 | 3,259 ${ }^{1}$ | 124 | 121 | 1 |
| Ongo Nuia | 1,282 | 202 | 93 | 43 | 19 | $913{ }^{1}$ | 12 | 0 |
| Tonga | 103,252 | 60,543 | 18,688 | 11,581 | 5,026 | 2,732 | 4,647 | 35 |

${ }^{1}$ Non-movers i.e. those people who did not change their residence during the reference period
Fifty-nine percent $(60,543)$ of the population were born in Tongatapu, $18 \%$ in Vava'u $(18,688), 11 \%$ $(11,581)$ in Ha'apai, $5 \%$ in 'Eua and $3 \%$ in Ongo Niua. Between the 2006 and 2011 censuses, the percentage of the population born and still residing in Tongatapu increased by $2 \%$ and decreased by $4 \%$ in Vava'u and $5 \%$ in Ha'apai.

In $2011,75 \%$ of Tongatapu's residents were also born in Tongatapu. Eighty percent of Vava'u's residents' were also born there. This is the highest proportion for all divisions. Only $65 \%$ of the 2011 residents of 'Eua were also born in 'Eua, which is the lowest proportion for all divisions

Tongatapu had the highest proportion of residents born overseas with just over $5 \%$ of its 2011 residents. Vava'u had 3\%, 'Eua and Ha'apai had $2 \%$ and Ongo Niua had less than $1 \%$ born overseas in 2011.

At the time of the 2011 census, Tongatapu had a net gain of 10,865 lifetime migrants, mainly from Vava'u and Ha'apai. Outwith Tongatapu, all other divisions had a net loss of lifetime migrants (Table 22).

Table 22: Interregional lifetime migration, Tonga: 2011

| Division | In-migrants | Out-migrants | Net migrants |
| :---: | :---: | :---: | :---: |
| Tongatapu | 14,809 | 3,944 | 10,865 |
| Vava'u | 2,544 | 6,748 | $-4,204$ |
| Ha'apai | 1,479 | 6,546 | $-5,067$ |
| 'Eua | 1,635 | 1,767 | -132 |
| Ongo Nuia | 357 | 1,819 | $-1,462$ |
| Tonga | $\mathbf{2 0 , 8 2 4}$ | $\mathbf{2 0 , 8 2 4}$ | $\mathbf{0}$ |

### 3.3.2 International migration

International migration refers to people who cross national boundaries to move to another country. Time and intent are important. Someone coming for a short visit is not a migrant - he or she is a visitor or tourist. Migration usually involves a change of a person's permanent residential address in pursuit of employment or educational opportunities.

The need to consider time and intent highlights one of the key problems concerning migration. Whether or not a particular person qualifies as a migrant can only be established after a certain period of time, usual at least six months, in order to establish whether the arriving and departing person qualifies as a visitor or migrant.

The 2011 census included three questions that provide an indication of the level of international migration. It asked questions about a respondent's:

- residence one and five years prior to the 2011 census, and
- place of birth.

Three percent of the population one year and older ( 2,695 people) answered that they had lived overseas one year prior to the 2011 census (Table 17). Four percent of the population five years and older ( 3,806 people) had lived overseas five years prior to the 2011 census (Table 19) and $5 \%$ of the population at the time of the 2011 census ( 4,647 people) had been born overseas (Table 21).

A crude indication of the level of net migration in Tonga can be derived by applying the balancing equation to the intercensal 2006-2011 population growth rate:

## Balancing equation

## Population growth $=\mathbf{C B R}$ minus CDR plus Net migration rate

Net migration rate can be estimated as
Net migration rate $=$ Population growth minus CBR plus CDR

Note: CBR = crude birth rate
$\mathrm{CDR}=$ crude death rate

Tonga's population increased from 101,991 to 103,252 people between the 2006 and 2011 censuses.
The average annual growth rate between 2006 and 2011 was $0.2 \%$ per annum.
The CBR and CDR were estimated at 28 and 6.8, respectively.
According to the balancing equation, the net migration rate can be calculated as follows:
[Population growth $=2(\%)]$ minus $[\mathrm{CBR}=28(\%)]$ plus $[\mathrm{CDR}=6.8(\%)]$

$$
\text { Net migration rate }=-19.2(\%) .
$$

With an average population size of 102,600 people during the intercensal period $2006(101,991$ people) to 2011 (103,252 people), a net migration rate of $-19 / 1000$ accounts for $-1,970$ persons per year, or -164 people per month. This represents a $9 \%$ increase on the estimated net migration rate of 18/1000, or 1,800 persons per year, for the 1996 to 2006 intercensal period.

Table 23 presents arrivals and departures data provided by the Tonga Ministry of Foreign Affairs and Immigration. There is volatility in these data from year to year. However, an annual average of these figures provides a net migration value of $-1,945$ persons per annum for the years 2007 to 2011, which is only 25 fewer annual out-migrants than estimated for the 2006 to 2011 intercensal period by indirect methods ( $-1,970$ persons per year).

Table 23: International arrivals and departures data, Tonga: 2006-2011

|  | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Arrivals | 66975 | 65657 | 74701 | 70845 | 71582 | 72592 |
| Departures | 68637 | 71325 | 76704 | 70949 | 72533 | 73589 |
| Net migration | $\mathbf{- 1 6 6 2}$ | $\mathbf{- 5 6 6 8}$ | $\mathbf{- 2 0 0 3}$ | $\mathbf{- 1 0 4}$ | $\mathbf{- 9 5 1}$ | $\mathbf{- 9 9 7}$ |

## 4 SOCIAL CHARACTERISTICS

### 4.1 Marital status

During the 2011 census, $55 \%$ of males $(17,483)$ and $55 \%$ of females $(18,162)$ aged 15 and older were married, another $40 \%$ of males $(12,684)$ and $34 \%$ of females $(11,048)$ were never married (single), and $3 \%$ of males $(893)$ and $8 \%$ of females $(2,639)$ were widowed (Fig. 18).

The higher number of married females is explained by the fact that some male spouses were working overseas at the time of the census enumeration.

Figure 18: Population aged 15 and older by marital status, Tonga: 2011


In general, women marry at younger ages than men. The average age at marriage was 27.2 and 24.7 years for males and females, respectively, and was calculated based on the average number of years of single life among those who marry before age 50 (the singulate mean age at marriage, SMAM ${ }^{1}$ ). The singulate mean age at marriage declined by 0.8 years for males and 0.9 years for females between the 2006 and 2011 censuses, indicating that people are choosing to marry earlier.

[^3]The higher proportion of young married women compared with men of the same age further indicates that women generally marry at younger ages than men (Fig. 19).

Only $21 \%$ of males were married at age 20-24, compared with $34 \%$ of females, and $53 \%$ of males were married at age 25-29 years, compared with $64 \%$ of females. At ages $35-49$ slightly over $80 \%$ of males and females were married. The proportion of married females declines after the age of 44 because an increasing higher proportion of females become widowed (Fig. 19).

Figure 19: Population aged 15 and older by sex and proportion married, Tonga: 2011


The same pattern can be seen by looking at the population who never married (single) (Fig. 20). A higher proportion of males than females were never married (single) at all age groups up to age 44 .

Figure 20: Population aged 15 and older by sex and proportion never married (single), Tonga: 2011

$\approx$ Males $\approx$ Females

The discrepancy between the proportion of widowed males and widowed females, at ages 40 years and older, increased continuously to age 85 (Fig. 21). At ages 55-59, only $5 \%$ of males were widowed, compared with $16 \%$ of females. At age 75 and older, only $32 \%$ of males were widowed, compared with $63 \%$ of females. Due to ageing of the population, widowhood at age 75 and older increased from $30 \%$ for males and $58 \%$ for females in the 2006 census.

The higher proportion of widowed females is explained by:

- lower female mortality rates, and therefore longer life expectancies of female spouses;
- older age at marriage of males compared with their female partners.

Therefore, male spouses usually die before their female partners.
Figure 21: Population aged 15 and older by sex and proportion widowed, Tonga: 2011

$\Rightarrow$ Males $-\circ$-Females

### 4.2 Religion

Methodism is the dominant religion in Tonga, with $36 \%$ of the population ( 36,592 members) affiliated with the Free Wesleyan Church (Table 24 and Fig. 22). The Church of Latter Day Saints is the second largest, with 18,554 members ( 18 percent of the population) followed by the Roman Catholic Church with $15 \%$ ( 15,441 members), the Free Church of Tonga with $12 \%$ ( 11,863 members), and the Church of Tonga with $7 \%$ ( 6,935 members). All other religions had less than $3 \%$ of the population as members.

Table 24: Population by religious affiliation, Tonga: 1986, 1996, 2006 and 2011

| Religion | 1986 | 1996 | 2006 | 2011 |
| :---: | :---: | :---: | :---: | :---: |
| Free Wesleyan Church | 40,371 | 39,703 | 38,052 | 36,592 |
| Roman Catholic | 14,921 | 15,309 | 15,922 | 15,441 |
| Church of Latter Day Saints | 11,270 | 13,225 | 17,109 | 18,554 |
| Free Church of Tonga | 10,413 | 11,226 | 11,599 | 11,863 |
| Church of Tonga | 6,882 | 7,016 | 7,295 | 6,935 |
| Tokaikolo | 3,047 | 2,919 | 2,597 | 2,533 |
| Anglican | 563 | 720 | 765 | 728 |
| Seventh Day Adventist | 2,143 | 2,381 | 2,282 | 2,331 |
| Assembly of God | 565 | 1,082 | 2,350 | 2,602 |
| Constitutional Church of Tonga |  |  | 941 | 961 |
| Gospel |  |  | 243 | 236 |
| Bahai |  |  | 686 | 777 |
| Hindu |  |  | 104 | 100 |
| Islam |  |  | 47 | 24 |
| Buddahist |  |  | 71 | 183 |
| The Salvation Army |  |  |  | 247 |
| Jehova's Witness |  |  |  | 462 |
| Pentecostal Denominations (excluding Assembly of God) |  |  |  | 1,034 |
| Other | 2,874 ${ }^{1}$ | 2,368 ${ }^{1}$ | 202 | 288 |
| No religious affiliation |  | 61 | 28 | 34 |
| Refused to answer |  | 10 | 1,509 | 877 |
| Not stated |  |  | 189 | 241 |
| Total | 93,049 ${ }^{2}$ | 96,020 ${ }^{2}$ | 101,991 ${ }^{3}$ | $103,043{ }^{4}$ |

${ }^{1}$ Includes Gospel, Baha'I Faith, Islam, The Salvation Army and other religions.
${ }^{2}$ Tongan and part - Tongan population
${ }^{3}$ Total population of Tonga.
${ }^{4}$ Population in private households and Tongan and part - Tongan population in institutions.

Figure 22: Population by religion, Tonga: 2011


### 4.3 Ethnicity origin

Based on information on the number of people by ethnic origin, Tonga has a very homogenous population with almost $97 \%$ ( 99.641 ) of Tongan origin, and another $1 \%(1,069)$ of part-Tongan origin (Fig. 23 and Table 25).

Figure 23: Total population by ethnic origin (in \% of total population), Tonga: 2011

$\square$ Tongan $\square$ Part-Tongan $\square E u r o p e a n \quad \square$ Chinese $\quad$ Other Asian $\square$ Other/Not Stated

Less than $2 \%$ of the population is of an ethnic origin other than Tongan or Part-Tongan. The proportion of other ethnic origins is slightly higher in Tonga's urban area, where 5\% are not Tongan or Part-Tongan; $2 \%$ are of Chinese origin, $1 \%$ of European origin, and $0.4 \%$ are other Asians.

Table 25: Total population by ethnic origin, Tonga: 2011

| Ethnic origin | Total | Urban | Rural |
| :--- | :---: | :---: | :---: |
| Tongan | 99,641 | 22,623 | 77,018 |
| Part-Tongan | 1,069 | 362 | 707 |
| European | 569 | 212 | 357 |
| Fijian Islanders | 437 | 290 | 147 |
| Other Pacific Island | 236 | 82 | 154 |
| Chinese | 843 | 443 | 400 |
| Other Asian | 186 | 100 | 86 |
| Other | 259 | 105 | 154 |
| Not stated | 12 | 12 | 0 |
| Total | $\mathbf{1 0 3 , 2 5 2}$ | $\mathbf{2 4 , 2 2 9}$ | $\mathbf{7 9 2 3}$ |

### 4.4 Health

### 4.4.1 Disability

Following requests from the Ministry of Health, the 2011 census questionnaire included several questions on disability within the population. The questions on disability include difficulties that affect seeing, hearing, walking, remembering or concentrating properly.

Overall, $8 \%$ of the total population reported a disability. This was $3 \%$ higher than for the 2006 census. As can be expected, the proportion of the population with a disability increases with age (Fig. 24). From the age of 50 years the proportion of the population with a disability increases continuously until it reaches about $53 \%$ of people aged 70 years and older. The proportion of the population aged 70 years and older with a disability has increased from $45 \%$ in 2006. Overall there was very little difference in the proportion of males and females with a disability.

Increased reporting of disability can in part be attributed to ageing within the population (an actual increase in the number of people with disabilities associated with ageing) and in part to an increase in perception amongst Tongan people regarding what constitutes a disability.

Figure 24: Proportion of the total population with a disability, Tonga: 2011


The disability that was most commonly mentioned was vision ( 3,472 people) (Table 26 ). This was followed by difficulties with walking ( 2,668 people), difficulties with hearing ( 1,760 people) and difficulties remembering and/or concentrating ( 1,107 people). Compared to 2006, all of these disabilities were reported by more people in 2011 except for difficulties with hearing, which was reported by 172 more people in 2006 than in 2011. The largest increase was in difficulties with vision, which was reported by 1,146 additional people in the 2011 census as compared to the 2006 census, an increase of almost $50 \%$ from 2006.

In 2011,252 people could not walk at all and 152 people were not able to remember or concentrate (Table 27). Seventy people were blind, and 56 people were deaf. Forty-one fewer people were reported to be senile or amnesic in 2011 as compared to 2006. The number of blind, deaf or lame people was higher in 2011 than in 2006. The largest increase was in lame people, with an additional 58 people reporting being lame in 2011. Compared to 2006, when 44 people were recorded as blind, the number of people recorded as blind in 2011 had increased by almost $60 \%$.

Table 26: Total population reporting a disability regardless of the severity of the disability, Tonga: 2011

| Disability | Total | Male | Female |
| :--- | :---: | :---: | :---: |
| Vision | 3,472 | 1,538 | 1,934 |
| Hearing | 1,760 | 864 | 896 |
| Walking | 2,668 | 1,245 | 1,423 |
| Remembering or concentrating | 1,107 | 551 | 556 |

Table 27: Total population reporting a severe disability, Tonga: 2011

| Disability | Total | Male | Female |
| :--- | :---: | :---: | :---: |
| Blindness | 70 | 32 | 38 |
| Deafness | 56 | 26 | 30 |
| Lameness | 252 | 115 | 137 |
| Senile and / or amnesic | 152 | 82 | 70 |

### 4.4.2 Illness, injury or other health complaints

One of the census questions was whether a person suffered an illness, injury or any health complaint during the two-week period prior to the interview. During this time, 5,038 people ( 2,429 males and 2,609 females), suffered an illness, injury or any health complaint, which equates to about $5 \%$ of the total population.

The proportion of people who suffered an illness, injury or any health complaint increases with age, just as it does with a disability. The proportion of people who suffered an illness, injury or any health complaint was slightly higher for females than for males aged between 25 and 39 years of age and was higher for males than for females over 40 years of age (Fig. 25). By contrast, females in all age groups except 45-49 and 75 years and over were more likely than males to have suffered an illness, injury or any health complaint in the two weeks prior to the 2006 census.

Figure 25: Proportion of the total population with an illness, injury, or health complaint, Tonga: 2011


Based on the question of whether and where a person with a health complaint sought care, $66 \%$ said that they went to the hospital, $6 \%$ went to a private doctor, $14 \%$ self-treated the complaint with modern medicine, and another $11 \%$ self-treated themselves with traditional medicine (Fig. 26). Two percent ( 80 people) did not seek any care. Compared to 2006 census data, the proportion of the population attending hospital for care was down by $3 \%$ and the proportion of the population who went to a private doctor was down by $2 \%$ in 2011. Self-treating with modern medicine or traditional medicine were both up by $3 \%$ on 2006 census data.

Figure 26: Proportion of population with a 'health complaint' and whether and where they sought care, Tonga: 2011


Subsequently all people that did not seek any care ( 80 people) where asked why they did not do so. Fifty-one percent believed that they were not ill enough, $8 \%$ said that it was too far too travel for treatment and $3 \%$ replied that they could not afford the treatment.

### 4.4.3 Smoking habits

During the 2011 census, every person aged five years and older was asked whether they smoked tobacco or cigarettes on a daily basis. It was found that $19 \%$ of the population aged five years and older smoked on a daily basis: $30 \%$ of males and $8 \%$ of females. This contrasts with the 2006 census when $21 \%$ of all persons aged six years or older smoked on a daily basis ( 33 percent of males and nine percent of females). About half of all males aged 20-65 years of age smoked on a daily basis in 2006 and 2011. Around $13 \%$ of females aged 20 years and older smoked in 2006 and 2011. In 2006 smoking on a daily basis was most prevalent in the 25-29 year old age group, whereas in the 2011 census, smoking on a daily basis was equally prevalent in the 25-29 and 30-34 year old age groups (Fig. 27). Therefore, the incidence of smoking on a daily basis has not declined in the Tongan population between 2006 and 2011.

Figure 27: Population six years and older and whether smoking on a daily basis, Tonga: 2011


### 4.5 Educational characteristics

### 4.5.1 School enrollment

In Tonga, it is compulsory for children to be at school from ages six to 14. The formal education system is divided into three stages Primary (six years), Secondary (seven years) and post-secondary (generally six months to three years depending on type of training). Secondary education covers years 7 to 13 (during which students are generally aged 13 to 17). Secondary students in Tonga either attend government funded, mission, or non-government private schools.

As of the 2011 population census, 33,344 people aged six years and over were enrolled in school: 17,027 males and 16,317 females - of which nearly $2 \%$ were part time students. A small proportion (one percent) of the population had never been to school.

Tonga has achieved full enrollment access in Primary education with $98 \%$ of 6-14 year-olds attending school in 2011 (Fig. 28). Enrollment rates decline from age 15 years and over (once students have completed compulsory education requirements). In general, age specific enrollment rates of females were higher than those of males after completing compulsory schooling.

Figure 28: Population aged six years and older (by sex) attending school, Tonga: 2011


Figure 29: Gender parity index (GPI) in primary and secondary education, Tonga: 2011


The gender parity index measures the ratio of females to males in school. 2011 census data illustrates that girls are slightly less likely than boys to attend primary school across Tonga but there is gender parity at secondary level (Fig. 29). Boys are less likely than girls to attend secondary school in 'Eua.

### 4.5.2 Educational attainment

Less than $1 \%$ of the population had no formal education whatsoever according to the 2011 census, while about one-in-ten had only primary education, as compared with $25 \%$ in the 2006 census (Fig. 30). More than $75 \%$ of the population 15 years and older had at least secondary education according to the 2011 census, as compared with $62 \%$ in the 2006 census. About $17 \%$ had tertiary education according to the 2011 census, as compared with $11 \%$ in the 2006 census. There were no real differences between male and female educational attainment in the 2011 census. With over $90 \%$ of all Tongans achieving secondary and tertiary education in 2011 compared to about $70 \%$ in 2006 and only $57 \%$ in 1986, these data illustrate a quarter of a century of consistent and solid improvement in educational attainment.

Figure 30: Population aged 15 and older by sex and educational attainment (in \%), Tonga: 2011


Table 28: Population aged 15 and older by urban-rural residence and educational attainment (in \%), Tonga: 2011

| Place of residence | Educational level |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | None | Primary | Secondary | Tertiary |
| Total | 0.7 | 8.4 | 74.6 | 16.1 |
| Urban | 0.6 | 6.3 | 67.9 | 25 |
| Rural | 0.7 | 9.1 | 76.7 | 13.3 |

About $6 \%$ of the Tongan population aged 15 years and over living in urban areas had only primary education according to the 2011 census, as compared with $16 \%$ in the 2006 census (Table 28). Just over two-thirds of urban residents aged 15 years and over achieved secondary education in 2011, a similar percentage to 2006 . In rural areas, about $9 \%$ of the population aged 15 and over had only primary education in 2011, as compared with $29 \%$ in 2006. Just over three-quarters of rural residents 15 years and over achieved secondary education in 2011, as compared with $62 \%$ in 2006 . This reflects: a. greater improvements in education levels in rural areas than urban areas; and b. less scope
for improvement in urban areas than rural areas (the proportion of the population going on to undertake post-secondary education was higher in urban areas than rural areas in both 2006 and 2011). For example the tertiary education level was $17 \%$ in the urban and only $8 \%$ in rural areas in 2006 and $25 \%$ in urban and $13 \%$ in rural areas in 2011. Education levels are lower out with Tongatapu (Fig. 31).

Figure 31: Population aged 15 and older by sex and educational attainment (in \%), by Urban/Rural and Division, Tonga: 2011

4.5.3 Educational qualifications

The proportion of the population aged 15 years and older with a secondary qualification was $33 \%$ for females, slightly higher than for males ( $29 \%$ ) according to the 2011 census (Fig. 32).

Figure 32: Population aged 15 and older by sex and educational qualification (in \%), Tonga: 2011


This disparity is consistent with 2006 census data, when $27 \%$ of females and $25 \%$ of males had a secondary qualification. Around $3 \%$ had a tertiary qualification according to the 2011 census, less than $59 \%$ of males and $54 \%$ of females had no qualification at all. About $10 \%$ had a vocational/professional qualification such as a teaching or nursing certificate in 2011. The percentage of the population 15 years and older with either no qualifications or tertiary qualifications were similar in 2006 and 2011.

In the 2011 census, the urban population was more qualified than the rural population aged 15 years and older (Table 29). In urban areas, $35 \%$ had secondary level qualifications, $14 \%$ had vocational/professional qualifications and $6 \%$ had tertiary qualifications. In rural areas, $30 \%$ had secondary level qualifications, $8 \%$ had vocational/professional qualifications and only $2 \%$ had tertiary qualifications. In urban areas, $45 \%$ had no qualifications as compared to $60 \%$ in rural areas. Compared to the 2006 census, the greatest improvements have been in rural areas, in particular in the reduction of the percentage of the population with no qualifications (from 67 percent in 2006 to 60 percent in 2011) and the increase in the percentage of the population with secondary level qualifications (from 23 percent in 2006 to 30 percent in 2011).

Table 29: Population aged 15 and older by urban-rural residence and educational qualification (in \%), Tonga: 2011

| Place of residence | Educational qualification |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
|  | None | Secondary | Vocational/ <br> professional | Tertiary |
|  | 56.2 | 31.1 | 9.6 | 3.1 |
| Urban | 45.3 | 34.8 | 14.3 | 5.6 |
| Rural | 59.8 | 29.9 | 8 | 2.2 |

### 4.5.4 Literacy

Literacy was measured by testing respondents on their ability to read and write a simple sentence in Tongan and English. In the 2011 census, English literacy competency was observed to increase from around $60 \%$ for age group 5-9 years to over $95 \%$ for age group 10-14 years for both males and females. Improvements were also observed in Tongan literacy over the same age range from a higher base (from 90 percent for age group 5-9 years to 99 percent for age group 10-14 years) (Fig. 33).

Figure 33: Population aged six years and older by sex and whether literate in Tongan or English (in \%), Tonga: 2011

Age group of respondent

| $\rightarrow$ Tongan lang.-Males | $\sim$ Tongan lang.-Females | $\rightarrow$-English lang.-Males | $\sim$ English lang.-Females |
| :---: | :---: | :---: | :---: |

2011 census data illustrates that English literacy competency gradually declines from age group 1014 years onwards, dropping below $90 \%$ for age group $50-54$ years, and further decreases with age. Female English literacy is slightly higher than for males aged between 10 and 49 years. However, at ages 55 years and above, a higher proportion of males than females are literate in English.

### 4.6 Labour market activity

### 4.6.1 Introduction

The 2011 census individual questionnaire included a "Labor Market Activity" section. Enumerators were instructed to ask each respondent 15 years of age and over the question: "During last week, what type of work did this person mainly do?". Work was defined as any activity concerned with providing the necessities of life. It did not matter whether or not the person had a job or was paid for what they did. Based on these criteria, respondents were coded on the questionnaire into the mutually exclusive categories of

- Work for pay;
- Work to support the household by producing goods mainly for sale;
- Work to support the household by producing goods mainly for own consumption;
- Other;
- None of the above.

A person who 'works for pay' is someone who worked for wages, salary, commission, has a contract, or was operating a business during the week prior to the census.

A person that did 'work to support the household by producing goods mainly for sale' performed a variety of tasks such as farming, gardening, fishing or producing handicrafts mainly for sale.

A person that did 'work to support the household by producing goods mainly for own consumption', performed a variety of tasks such as farming, gardening, fishing or producing handicraft for own consumption and are subsequently described as subsistence workers.

The category 'Other' was utilized when the other three categories were not appropriate and the activity of the respondent could be specified through an open ended response.

The 'none of the above' category applies to those people who did nothing in the reference week (i.e. the week before the census) to provide for themselves or their families or household. This includes people engaged in family responsibilities, people who are retired, people who are disabled, students, the unemployed, and those who did not want to work or were not interested in finding work.

## People classified as unemployed

1. did not work in the previous week (other than those who had a job but were not at work during the reference week), but
2. spent some time looking for work, and
3. were available to work if a job was offered to them.

The following analysis of Tonga's unemployment level provides an option of including subsistence workers as part of the unemployed on the grounds that these people would look for work if they believed cash work was available in their labour market community.

If a person did not work and did not spend some time looking, or looked for work but was not available for work, they were then classified as economically inactive (not in the labour force).

Based on the above, data collected from the Tonga census have been assigned to the three categories of

- employed (those that work for pay or work to support the household by producing goods mainly for sale or work to support the household by producing goods mainly for own consumption);
- unemployed (see definition above);
- not in the labour force (those not employed or unemployed).


### 4.6.2 Employed: paid workers and subsistence workers

As indicated in the introduction, those people who are defined as being employed ( 33,422 people) included 23,698 (71 percent) paid workers, and 9,549 (29 percent) subsistence workers (App. 7A and 7B).

The total number of employed people consisted of 19,695 (59 percent) males and 13,727 (41 percent) females (Fig. 34). The total number of paid workers was 23,698 , of which, 13,977 ( 59 percent) were males and 9,721 (41 percent) were females. The total number of subsistence workers included 5,612 males and 3,937 females.

Figure 34: Population aged 15 and older by sex and labour market activity, Tonga: 2011


In the urban area, 7,067 people ( 45 percent of urban people aged 15 years and older) were employed, compared to 26,355 in rural areas ( 54 percent of rural people aged 15 years and older) (Fig. 35). 6,424 (27 percent) of paid workers were in the urban area, and 17,274 (73 percent) in the rural areas. In the case of subsistence workers, however, only 590 (six percent) were in the urban area, with 8,959 (94 percent) in rural areas.

Figure 35: Population aged 15 and older by urban-rural residence and labour market activity, Tonga: 2011


The total number of people employed, by age group, included 4,795 people in the 15-24 year age group, 25,020 in the 25-59 year-old age group, and 3,606 in the 60 years and over age group (Fig. 36). In addition, one employed person did not state their age.

Figure 36: Employed population aged 15 and older by age and sex, Tonga: 2011


### 4.6.3 Labour force participation rate and employment-population ratio

The labour force participation rate is the number of people in the labour force divided by the corresponding total population with the same characteristics, multiplied by 100. The employmentpopulation ratio is the number of people employed in cash work divided by the corresponding total population with the same characteristics, multiplied by 100 .
Figure 37 provides an overview of the labour force participation rate and the employment-population ratio for the total population aged 15 years and older by sex, and Table 30 breaks the same indicators further down to urban and rural areas.
The labour force participation rate and employment-population ratio were higher for males than for females. The labour force participation rate was higher for the rural population than the urban population. The employment-population ratio was higher for the urban than the rural population because of proportionately greater participation in paid employment in urban areas.

Figure 37: Population 15 years and older by labour force participation rate and employment-population ratio by sex, Tonga: 2011


Table 30: Population aged 15 and older by sex, urban-rural residence, labour force participation rate, and employment-population ratio, Tonga: 2011

|  | Labour force <br> participation rate | Employment-population <br> ratio |
| :--- | :---: | :---: |
| Tonga | $\mathbf{5 2 . 3}$ | $\mathbf{3 6 . 7}$ |
| Males | 62.7 | 44 |
| Females | 42.3 | 29.6 |
|  |  |  |
| Urban | $\mathbf{4 5 . 5}$ | $\mathbf{4 0 . 6}$ |
| Males | 55.7 | 49.5 |
| Females | 35.6 | 32 |
|  |  |  |
| Rural | $\mathbf{5 4 . 5}$ | $\mathbf{3 5 . 4}$ |
| Males | 64.9 | 42.2 |
| Females | 44.5 | 28.8 |

The labour force participation rate and the employment-population ratio were higher for males than for females at all ages (Figs. 38 and 39).

The labour force participation rate for females did not exceed $70 \%$ at any age, while that of males peaked at $85 \%$ at $40-49$ years of age.

Figure 38: Population aged 15 and older by age, sex and labour force participation rate, Tonga: 2011


Figure 39: Population aged 15 and older by age, sex and employment-population ratio, Tonga: 2011


The employment-population ratio is categorized as either: all people that work for cash (whether contract worker or self-employed); or excluding self-employed people that farm, fish or produce handicrafts for sale.

A peak of $67 \%$ of all males aged 45-49 years were employed as cash workers while about $43 \%$ of females aged 45-49 years were employed as cash workers (Fig. 39). The highest percentage of female cash workers were aged 40-44 years ( 44 percent).

A general pattern was of low participation rates at ages 15-19 years, and higher participation rates at ages 60 years and older, indicating that many older people keep providing economically for themselves and their household/families.

### 4.6.4 Paid workers by employment status

About $62 \%$ of all paid workers were employees for government, quasi-government or a private employer: 8,960 males and 5,638 females (Fig. 40).

Figure 40: Paid workers by employment status and sex, Tonga: 2011


There were only 343 employers, which is $1.4 \%$ of all cash workers. Another 8,740 people ( 37 percent of all cash workers) were self-employed; 4,784 males and 3,956 females.
In any of the work status categories, there were considerably more male than female employed cash workers in 2011.

### 4.6.5 Employed workers by industry group

By far, the majority of employed workers in Tonga were employed in Agriculture, Fishing and Quarrying $(9,817)$ or in Manufacturing $(8,184)$ which together constitutes $54 \%$ of all total employed workers (Fig. 41). While Manufacturing was dominated by females, the employees in Agriculture, Fishing and Quarrying were almost all men.
The other sizable three industry groups with a significant proportion of employed people were: Trade (wholesale, retail or any other form of business) - 2,316 (seven percent); Public administration and defence - 2,913 (nine percent); and Education - 2,230 (seven percent). Employment levels in the remaining industry groups all represent less than $5 \%$ of the total.

Figure 41: Employed workers by industry, Tonga: 2011


### 4.6.6 Employed workers by occupational group

The largest number of employed workers were Craft and related trades workers - 9,662 ( 29 percent), followed closely by Skilled agricultural and fishery workers $-9,470$ ( 28 percent) (Fig. 42). While Craft and related trades workers were dominated by females ( 75 percent), the Skilled agricultural \& fishery category was dominated by males ( 97 percent).

The next most prominent occupational groups were Professionals ( 12 percent of all employed workers), Service workers and Market sales workers (ten percent), Clerks (five percent), and Technician and associate professionals (five percent). All other groups had less than 1,500 workers.

Figure 42: Employed workers by occupation, Tonga: 2011


### 4.6.7 Unemployed

There were 373 people ( 192 males and 181 females) aged 15 years of age and older who did not work, but spend time looking for work, and were available and willing to start work if a job was offered to them, was only 373 people, 192 males and 181 females. This level of unemployment represents $1.1 \%$ of the total labour force (Table 31, App. 7a).

However, 39 people did not look for work in the week prior to the census because of bad weather conditions or because they could not afford the transportation costs. In addition, a group of 1,901 people did not work, and did not look for work because they believed that no work was available. If all these people $(1,940)$ were included in the unemployed category (thereby increasing the total labour force and decreasing the non-labour force by this number), the number of unemployed would increase to 2,313 people, and the unemployment rate would be $6.5 \%$ (Table 31, App. 7B).

If subsistence workers are included in the unemployed category, on the grounds that these people would look for work if they believed cash work was available in their labour market community. The total unemployed was 11,862 people, which equates to an unemployment rate of $33 \%$. Broken down by urban and rural areas, this amounts to 1,226 people ( 16 percent) in the urban area, and 10,636 people ( 38 percent) in rural areas (Table 31, App. 7B). While not all people who did not seek work and not every subsistence worker could be considered unemployed, a proportion of them may be and the unemployment rate must fall somewhere between $1 \%$ and $33 \%$.

Regardless of the unemployment concept used, unemployment levels were very similar for females and males, which represents a difference from the 2006 census when unemployment rates were higher for females than for males when the adjusted definition or subsistence workers were counted as unemployed. Unemployment rates have increased since 2006 levels in total, urban and rural areas and for both males and females when the adjusted definition is used, but have declined from 2006 levels in total, urban and rural areas and for both males and females when subsistence workers are counted as unemployed, because the number of subsistence workers has declined from 10,048 in 2006 to 9,549 in 2011.

Table 31: Population aged 15 and older and unemployment status according to various unemployment concepts, Tonga: 2011

| Unemployment concept | Number of unemployed |  |  | Unemployment rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Male | Female | Total | Males | Females | Total |
| According to unadjusted definition |  |  |  |  |  |  |
| Tonga | 192 | 181 | 373 | 1.0 | 1.3 | 1.1 |
| Urban | 73 | 59 | 132 | 1.7 | 2.1 | 1.8 |
| Rural | 119 | 122 | 241 | 0.8 | 1.1 | 0.9 |
| According to adjusted definition* |  |  |  |  |  |  |
| Tonga | 1,356 | 957 | 2,313 | 6.4 | 6.5 | 6.5 |
| Urban | 396 | 240 | 636 | 8.5 | 7.9 | 8.3 |
| Rural | 960 | 717 | 1,677 | 5.9 | 6.2 | 6.0 |
| If "subsistence work" is classified as unemployed |  |  |  |  |  |  |
| Tonga | 6,968 | 4,894 | 11,862 | 33.1 | 33.3 | 33.2 |
| Urban | 780 | 446 | 1,226 | 16.7 | 14.7 | 15.9 |
| Rural | 6,188 | 4,448 | 10,636 | 37.8 | 38.2 | 37.9 |

[^4]
### 4.6.8 Not in labour force

The total number of people classified as not in the labour force in the 2011 Tonga census was 30,802 (Table 32). However, if some of the 1,940 people that were included in the "other" non-labour force category were to be classified as unemployed, the total number of people in the non-labour force would decrease by the same number (App. 7B).

Table 32: Population aged 15 and older not in the labour force, Tonga: 2011

| Non-labour force | Males | Females | Total |
| :--- | ---: | ---: | ---: |
| Student | 4,403 | 4,623 | 9,026 |
| Retired or too old | 1,528 | 2,329 | 3,857 |
| Disabled | 457 | 381 | 838 |
| Home responsibilities or domestic duties | 3,554 | 10,247 | 13,801 |
| Others, including people who did not work because | 1908 | 1372 | 3280 |
| they were not willing and available to work | 97 | 137 | 234 |
| of poor weather conditions \& cannot afford transport | 25 | 14 | 39 |
| they did not look for work because they believe that no work was available | $\mathbf{1 , 1 3 9}$ | 762 | $\mathbf{1 , 9 0 1}$ |
| for reasons not specified | 647 | 459 | $\mathbf{1 , 1 0 6}$ |
| Total | $\mathbf{1 1 , 8 5 0}$ | $\mathbf{1 8 , 9 5 2}$ | $\mathbf{3 0 , 8 0 2}$ |

Of the population aged 15 years and older not in the labour force, $62 \%$ were females $(18,952)$, and $38 \%(11,850)$ were males. This compares with $59 \%$ females and $41 \%$ males in 2006 . There were more female students $(4,623)$ than male students $(4,403)$. About $70 \%$ of those people retired, disabled or with home responsibilities or domestic duties were female $(12,957)$, which was also the case in 2006.

## 5 HOUSEHOLD CHARACTERISTICS

### 5.1 Household size

The number of (private) households increased from 17,462 in 2006 to 18,033 in 2011, an overall increase of 571 households (Table 33). On average, the number of private households increased by 114 per year between 2006 and 2011, whereas between 1996 and 2006 the number of households in Tonga increased by 127 each year.

Table 33: Number of private households, number of occupants, and average household size by division/district, Tonga: 2006 and 2011

| Division/District | Number of private households |  | Number of people in private households |  | Average household size (number of people per household) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2006 | 2011 | 2006 | 2011 | 2006 | 2011 |
| TONGA | 17,462 | 18,033 | 101,144 | 101,969 | 5.8 | 5.7 |
| Tongatapu <br> Kolofo'ou <br> Kolomotu'a <br> Vaini <br> Tatakamotonga Lapaha <br> Nukunuku <br> Kolovai | $\begin{gathered} \hline 11,971 \\ 3,036 \\ 2,689 \\ 2,029 \\ 1,190 \\ 1,220 \\ 1,131 \\ 676 \end{gathered}$ | $\begin{gathered} \hline 12,818 \\ 3,203 \\ 2,988 \\ 2,087 \\ 1,220 \\ 1,274 \\ 1,346 \\ 700 \end{gathered}$ | $\begin{gathered} \hline 71,340 \\ 18,216 \\ 15,753 \\ 12,497 \\ 6,775 \\ 7,255 \\ 6,807 \\ 4,037 \end{gathered}$ | $\begin{gathered} \hline 74,327 \\ 18,547 \\ 16,791 \\ 12,756 \\ 7,105 \\ 7,378 \\ 7,708 \\ 4,042 \end{gathered}$ | $\begin{aligned} & 6.0 \\ & 6.0 \\ & 5.9 \\ & 6.2 \\ & 5.7 \\ & 5.9 \\ & 6.0 \\ & 6.0 \end{aligned}$ | $\begin{aligned} & 5.8 \\ & 5.8 \\ & 5.6 \\ & 6.1 \\ & 5.8 \\ & 5.8 \\ & 5.7 \\ & 5.8 \end{aligned}$ |
| Vava'u <br> Neiafu <br> Pangaimotu <br> Hahake <br> Leimatu'a <br> Hihifo <br> Motu | $\begin{gathered} \hline 2,871 \\ 1,060 \\ 243 \\ 436 \\ 489 \\ 430 \\ 213 \end{gathered}$ | $\begin{gathered} \hline 2,813 \\ 1,070 \\ 243 \\ 418 \\ 465 \\ 405 \\ 212 \end{gathered}$ | $\begin{gathered} \hline 15,435 \\ 5,738 \\ 1,406 \\ 2,422 \\ 2,734 \\ 2,267 \\ 868 \end{gathered}$ | 14,825 5,698 1,324 2,297 2,418 2,105 983 | $\begin{aligned} & 5.4 \\ & 5.4 \\ & 5.8 \\ & 5.6 \\ & 5.6 \\ & 5.3 \\ & 4.1 \end{aligned}$ | $\begin{aligned} & 5.3 \\ & 5.3 \\ & 5.4 \\ & 5.5 \\ & 5.2 \\ & 5.2 \\ & 4.6 \end{aligned}$ |
| Ha'apai <br> Pangai Hp <br> Foa <br> Lulunga <br> Mu'omu'a <br> Ha'ano <br> Uiha | $\begin{gathered} \hline 1,372 \\ 530 \\ 251 \\ 196 \\ 127 \\ 120 \\ 148 \end{gathered}$ | $\begin{gathered} \hline 1,258 \\ 463 \\ 229 \\ 204 \\ 111 \\ 106 \\ 145 \end{gathered}$ | $\begin{gathered} \hline 7,541 \\ 2,943 \\ 1,474 \\ 1,075 \\ 630 \\ 619 \\ 800 \end{gathered}$ | $\begin{gathered} 6,577 \\ 2,377 \\ 1,353 \\ 1,055 \\ 609 \\ 511 \\ 672 \end{gathered}$ | $\begin{aligned} & 5.5 \\ & 5.6 \\ & 5.9 \\ & 5.5 \\ & 5.0 \\ & 5.2 \\ & 5.4 \end{aligned}$ | $\begin{aligned} & 5.2 \\ & 5.1 \\ & 5.9 \\ & 5.2 \\ & 5.5 \\ & 4.8 \\ & 4.6 \end{aligned}$ |
| 'Eua <br> 'Eua Motu'a 'Eua Fo'ou | $\begin{aligned} & \hline 899 \\ & 515 \\ & 384 \end{aligned}$ | $\begin{aligned} & 862 \\ & 503 \\ & 359 \end{aligned}$ | $\begin{aligned} & 5,169 \\ & 2,914 \\ & 2,255 \end{aligned}$ | $\begin{aligned} & 4,958 \\ & 2,794 \\ & 2,164 \end{aligned}$ | $\begin{aligned} & 5.7 \\ & 5.7 \\ & 5.9 \end{aligned}$ | $\begin{aligned} & 5.8 \\ & 5.6 \\ & 6.0 \end{aligned}$ |
| Ongo Niua Niuatoputapu Niuafo'ou | $\begin{aligned} & \hline 349 \\ & 210 \\ & 139 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 282 \\ & 168 \\ & 114 \\ & \hline \end{aligned}$ | $\begin{gathered} 1,659 \\ 1,013 \\ 646 \end{gathered}$ | $\begin{gathered} 1,282 \\ 759 \\ 523 \end{gathered}$ | $\begin{aligned} & 4.8 \\ & 4.8 \\ & 4.6 \end{aligned}$ | $\begin{aligned} & 4.5 \\ & 4.5 \\ & 4.6 \end{aligned}$ |

In addition, there was a significant increase in the number of non-private dwellings (institutions), from 67 in 2006 to 123 in 2011, an increase of nearly $84 \%$. Non-private dwellings include accommodation for short-term visitors, such as hotels and hostels, hospitals, camps and prisons.
The number of households increased substantially in Tongatapu, especially in the districts of Kolofo'ou, Kolomotu'a, Vaini and Nukunuku. This was the same as during the period 1996 to 2006. The total number of households decreased in all other divisions of Tonga between 2006 and 2011.

The average household size decreased slightly from 5.8 to 5.7 people per household between 2006 and 2011, maintaining a trend of declining household size from 6.0 people per household in 1996.

The average household size of 5.8 people in Tongatapu was higher than the average in all the other divisions except for 'Eua (also 5.8 people per household). The average household size in Ongo Niua was lower than in the other divisions (4.5 people per household) (Fig. 43).

Figure 43: Average household size (number of people per household) by division, Tonga: 2011


In 2011, the most common household size was 5 , accounting for $14 \%$ of all households (Table 34 and Fig. 44). However, the highest proportion of all people lived in households with 7 people, which also accounted for $14 \%$ of all households.

Twenty-two percent of the population lived in households of 10 or more people, and almost $4 \%$ of the population lived in households of 15 or more people. Just over $1 \%$ of the population lived in singleperson households, which accounted for just over $6 \%$ of all households.

Table 34: Number of private households by household size and people per household, Tonga: 2011

| Household size | Private households |  | People per household size |  |
| :---: | ---: | :---: | :---: | :---: |
|  | Number | $\%$ | Number |  |
| 1 | 1,161 | 6.4 | 1,161 | 1.1 |
| 2 | 1,642 | 9.1 | 3,284 | 3.2 |
| 3 | 1,932 | 10.7 | 5,796 | 5.7 |
| 4 | 2,256 | 12.5 | 9,024 | 8.8 |
| 5 | 2,503 | 13.9 | 12,515 | 12.3 |
| 6 | 2,242 | 12.4 | 13,452 | 13.2 |
| 7 | 1,966 | 10.9 | 13,762 | 13.5 |
| 8 | 1,455 | 8.1 | 11,640 | 11.4 |
| 9 | 1,003 | 5.6 | 9,027 | 8.9 |
| 10 | 628 | 3.5 | 6,280 | 6.2 |
| 11 | 425 | 2.4 | 4,675 | 4.6 |
| 12 | 285 | 1.6 | 3,420 | 3.4 |
| 13 | 190 | 1.1 | 2,470 | 2.4 |
| 14 | 118 | 0.7 | 1,652 | 1.6 |
| $15+$ | 227 | 1.3 | 3,811 | 3.7 |
| Total | $\mathbf{1 8 , 0 3 3}$ | 100.0 | 101,969 | 100.0 |

Figure 44: Distribution of households and population living in private households, by household size, Tonga: 2011


### 5.2 Household composition

Data on household composition were established by identifying a head of household who served as a reference person to whom all other people in the household, in terms of family membership, are related (Table 35).

The majority of all heads of households (78 percent) in Tonga were men $(13,982)$ with $22 \%(4,051)$ of households headed by women.

Sixty-nine percent of all household members consisted of a husband and wife and their children (nuclear family).

About 15\% of household members consisted of other children such as adopted children or grandchildren of the household head. Another $11 \%$ of all household members were other relatives, such as uncles and aunts, nephews, etc.

Less than $2 \%$ of all household members were a non-relative (no relation).
Table 35: Population by household composition (relationship to head of household), Tonga: 2011

| Relationship | Total | Males | Females | Total | Males | Females |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total number |  |  | Percentage |  |  |
| Head of Household | 18,033 | 13,982 | 4,051 | 17.7 | 27.4 | 8.0 |
| Spouse | 11,681 | 203 | 11,478 | 11.5 | 0.4 | 22.5 |
| Biological - child | 40,784 | 21,034 | 19,750 | 40.0 | 41.2 | 38.8 |
| Adopted - child | 2,166 | 1,160 | 1,006 | 2.1 | 2.3 | 2.0 |
| Brother / Sister | 1,627 | 827 | 800 | 1.6 | 1.6 | 1.6 |
| Grandchild | 13,069 | 6,743 | 6,326 | 12.8 | 13.2 | 12.4 |
| Parent of head of household | 531 | 119 | 412 | 0.5 | 0.2 | 0.8 |
| Parent of spouse | 400 | 84 | 316 | 0.4 | 0.2 | 0.6 |
| Child of spouse (step child) | 439 | 223 | 216 | 0.4 | 0.4 | 0.4 |
| Other relatives | 11,426 | 5,667 | 5,759 | 11.2 | 11.1 | 11.3 |
| No relation | 1,813 | 1,013 | 800 | 1.8 | 2.0 | 1.6 |
| Total | 101,969 | 51,055 | 50,914 | 100.0 | 100.0 | 100.0 |

### 5.3 Household income

### 5.3.1 Main source of household income

Wages and/or salaries were the main source ( 44 percent) of household incomes during the 12 months prior to the 2011 census (Fig. 45). The second most common source was income from selling own products such as fish, crops or handicrafts ( 26 percent - down from 29 percent in the 2006 census). Income from remittances was the main source of income for 15 per cent of households, a decline from $20 \%$ of households relying on remittances in the 12 months preceding the 2006 census. A small proportion (six percent) of households relied on income from their own business in the 12 months preceding the 2011 census. Seven percent of households in Tonga reported that they had no regular source of income in the 12 months preceding the 2011 census.
Figure 45: Private households by division and main source of household income (in \% of total household income), Tonga: 2011


There were large differences in the main income source of households between divisions. While 49\% of all households in Tongatapu mainly relied on income from wages and salaries, this proportion was much lower in all other divisions. Income generated through sale of own products was highest in Ha'apai division (46 percent) and in some districts such as Hihifo, Uiha, Lulunga, Leimatu'a and Mu'omu'a up to $68 \%$ of all households mainly relied on income from sale of own products (Fig. 46). Almost one-quarter of all households in Kolovai, Lapaha and 'Uiha relied primarily on remittances as their main source of income in the 12 months preceding the 2011 census.

Figure 46: Private households by district and main source of household income (in \% of total household income), Tonga: 2011


### 5.3.2 Remittances

About $83 \%$ of households received remittances during the 12 months prior to the census (Fig. 47), and only $17 \%$ did not receive any remittances.

More than half ( 55 percent) of all households received remittances from outside of Tonga only, and another $23 \%$ received them from within and outside of Tonga. Five percent of all households only received remittances from inside of Tonga.

The importance and source of remittances varies by division. While $24 \%$ of all households in Ongo Niua did not receive any remittances, this was only $16 \%$ in Tongatapu. Ongo Niua had the highest proportion of households receiving remittances from within Tonga only (17 percent), and Tongatapu had the highest proportion of households receiving remittances from outside Tonga only ( 61 percent).

There have been significant changes in remittances between the 2006 and 2011 censuses. There was a general decline in the percentage of households that did not receive any remittances in all divisions except for Tongatapu and Ha'apai. The largest increase in households receiving remittances was in Onga Niua (from 67 percent to 76 percent). In Vava'u, the increase was from $78 \%$ to $83 \%$. The changes reflect outmigration from the outer islands of Tonga.

Figure 47: Source of remittances for private households (by division in \% of households), Tonga: 2011


### 5.4 Amenities and capital goods

The data presented in this section are numbers or percentages of private households by division (Table 36). Since several households may live in the same dwelling, the information presented does not refer to the number or percentage of dwellings.

Table 36: Total number of private households by division, Tonga: 2011

|  | Division |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | TONGA | Tongatapu | Vava'u | Ha'apai | 'Eua | Ongo Niua |
| Total number of private <br> households |  |  |  |  |  |  |

### 5.4.1 Private households by building material used for dwelling

Figures 48 to 50 present data on the building materials used to construct dwellings by division. About $61 \%$ of private households occupied dwellings with wooden outside walls, and $31 \%$ of private households occupied dwellings with outside walls of concrete blocks (Fig. 48). In Ha'apai, the proportion of private households that occupied dwellings with wooden outside walls was $81 \%$, as compared to only $12 \%$ occupying dwellings with outside walls constructed of concrete blocks. In 'Eua, half of private households occupied dwellings with wooden outside walls and $38 \%$ of private households occupied dwellings with outside walls constructed of concrete blocks.

Between the 2006 and 2011 censuses, concrete blocks increased as a material used for outside walls (from 27 percent to 31 percent), while wood has decreased in use (from 65 percent to 61 percent). This trend is followed in all divisions except for Ongo Niua, where concrete block and metal outside walls have been replaced with wood during reconstruction of dwellings damaged in the Tsunami which occurred on 30 September 2009.

Figure 48: Proportion of private households by division and the main type of material used for the outside walls of dwellings, Tonga: 2011


Between the 2006 and 2011 censuses, the percentage of private households occupying dwellings with metal roofs increased from $93 \%$ to $95 \%$ (Fig. 49).

Figure 49: Proportion of private households by division and the main type of material used for the roofs of dwellings, Tonga: 2011


Since 2006, the percentage of private households occupying dwellings with concrete floors increased by $3 \%$ so that by 2011 , almost four-fifths ( 79 percent) of all private households in Tonga had concrete floors in their dwelling (Fig. 50). The percentage of private households with wooden floors in their dwelling declined from $23 \%$ in 2006 to $20 \%$ in the 2011 census. However, the proportion of private households occupying dwellings with wooden floors ranged between $34 \%$ in Vava'u and $12 \%$ in 'Eua in 2011. In 'Eua, the percentage of private households residing in dwellings with wooden floors declined most since 2006 (by six percent from 18 percent).

Figure 50: Proportion of private households by division and the main type of material used for the floors of dwellings, Tonga: 2011


### 5.4.2 Private households by water source

Sixty-seven percent of all private households in Tonga in 2011 occupied dwellings with a cement tank for drinking water (Fig. 51). Between 2006 and 2011, the option to state that drinking water was obtained from a neighbour was added to the census questionnaire. As a result, the second most important source ( 25 percent) was water obtained from a neighbour. Bottled water was the main source of drinking water for $4 \%$ of private households and piped water was used by $3 \%$ of private households in Tonga in 2011. Bottled water was only a significant source of drinking water in Tongatapu and piped water was more readily used for drinking in 'Eua (eight percent of private households) than elsewhere.

Figure 51: Proportion of private households by division and the main source of drinking water, Tonga: 2011


The main source of water apart from drinking water was piped water ( 89 percent of all private households), or a tank ( $10 \%$ of all private households) (Fig. 52). The proportion of households relying on a tank was $23 \%$ in Ha'apai and $50 \%$ in Onga Niua. In Ha'apai, $4 \%$ of all households obtained their water from a well.

Between the 2006 and 2011 census, the percentage of households in Tonga obtaining their water from a piped supply increased by $6 \%$ (from $83 \%$ ). Piped water supplies to households increased in all divisions except for Ongo Niua, where the number of private households mainly relying on piped water fell from $52 \%$ to $50 \%$ in 2011 , presumably as a result of the upheavals caused by the Tsunami in 2009. The largest increase was in Ha'apai (from 52 percent to 73 percent).

Figure 52: Proportion of private households by division and the main source of water apart from drinking water, Tonga: 2011


### 5.4.3 Private households by main toilet facility

While flush toilets were the most common type of toilet facility in Tonga, used by $76 \%$ of all private households, there were significant differences by division (Fig. 53). While $83 \%$ of all private households in Tongatapu occupied dwellings with a flush toilet, this percentage was much lower in Ha'apai (47 percent) and Onga Niua ( 35 percent). In Ha'apai, the percentage of private households occupying dwellings with a pit toilet was $43 \%$ and in Onga Niua it was $60 \%$. On average, $10 \%$ of all private households in Tonga occupied dwellings with a manual flush toilet.

Between the 2006 and 2011 censuses, the proportion of private households occupying dwellings with flush toilets increased by $6 \%$ and the proportion of private households occupying dwellings with pit toilets decreased by $4 \%$. The largest percentage decline in use of pit toilets was in Ha'apai (from 56 percent to 43 percent), where use of manual flush toilets increased by $3 \%$ and flush toilets by $9 \%$. Tongatapu and Ongo Niua had the least amount of change in the type of facilities used between the 2006 and 2011 censuses.

Figure 53: Proportion of private households by division and main toilet facility, Tonga: 2011


### 5.4.4 Private households by main energy source

The main energy source for lighting in Tonga was mains electricity supply ( $89 \%$ of all private households). The percentage using this source was highest in Tongatapu ( 93 percent) and lowest in Ha'apai (74 percent) (Fig. 54). In Ongo Nuia mains electricity is not supplied. Instead, $57 \%$ of all households relied on solar panels and $40 \%$ on kerosene or benzene.

Between the 2006 and 2011 censuses, there were small decreases in use of kerosene or benzene. In Ongo Niua, use of solar panels increased by $13 \%$ while use of kerosene or benzene decreased by $10 \%$. In 'Eua use of kerosene or benzene decreased by $4 \%$ (mains electricity supply increased by three percent).

Figure 54: Proportion of private households by division and main source of lighting, Tonga: 2011


At the time of the 2011 census, half of all private households in Tonga used gas as the main fuel for cooking (Fig. 55). Gas was most commonly used in Tongatapu where $60 \%$ of all private households relied on this fuel for cooking. This percentage was much lower in all other divisions, where collected firewood was the main energy source for cooking, ranging from $60 \%$ of households in Vava'u to $90 \%$ of households in Ongo Niua relying on collected firewood.

Between the 2006 and 2011 censuses, reliance on collected firewood as a cooking fuel increased, while use of gas declined in all divisions of Tonga. The percentage of households using mains electricity supply did not change between the 2006 and 2011 censuses. Use of kerosene also declined in Ongo Niua. The shift towards collected firewood as a cooking fuel may be attributable to the increasing burden of the cost of gas on household expenditures.

Figure 55: Proportion of private households by division and main fuel for cooking, Tonga: 2011


### 5.4.5 Private households by main means of waste disposal

Burning was the most common means of waste disposal in Tonga, practiced by $58 \%$ of all private households, followed by commercial collection ( 34 percent of households) (Fig. 56). In Tongatapu, the percentage of households using commercial waste collection was higher ( 46 percent) than the percentage of households burning waste ( 45 percent). Nine percent of households in Vava'u had waste collected.

Between the 2006 and 2011 censuses, the percentage of private households whose main means of waste disposal was burning fell by $27 \%$ (from 85 percent in 2006). This change has been greatest in Tongatapu and to a lesser extent in Vava'u as a result of policy directives. In other divisions, the percentage of households burning waste has not declined by the same proportion or has not declined at all.

Figure 56: Proportion of private households by division and main mode of waste disposal, Tonga: 2011


### 5.4.6 Private households by tenure

The majority of private households ( 69 percent) owned their dwelling (Fig. 57), 5\% rented their dwelling, and another $24 \%$ stayed in their dwelling rent-free. About $7 \%$ of households in Tongatapu rented their dwelling, which was the highest percentage of households in any division. Owneroccupancy was highest in Vava'u (77 percent).

Between the 2006 and 2011 censuses, the percentage of private households that owned the dwelling they occupied declined by $3 \%$ (from 72 percent), while rent-free tenancy increased by $1 \%$ and rented tenancy decreased by $1 \%$. The largest shifts in tenure occurred in Vava'u, where owner-occupancy declined by $7 \%$ and rent-free tenancy increased by $5 \%$. These changes may have resulted from outmigration of owner-occupiers and their dwellings becoming available to relatives for rent-free occupancy.

Figure 57: Proportion of private households by division and tenure, Tonga: 2011


### 5.4.7 Private households and availability of various household items

This section briefly summarizes the availability of a variety of household items (Table 37). In general, in 2011, a higher proportion of households in Tongatapu (compared to all other divisions) used items such as a hot water system, a motor vehicle, refrigerator, washing machine, television, video/DVD player, computer, and have access to the internet. A bath or shower was available in all private households across Tonga. Over $90 \%$ of households used mobile telephones in all divisions except for Ongo Niua, where mobile telephones were used by $61 \%$ of households. Ownership of a boat was more common in Vava'u, Ha'apai and Ongo Niua than in Tongatapu.

Between the 2006 and 2011 censuses, the use of most household items has increased across Tonga. Most notably, mobile telephones (from 73 percent to 94 percent), computers (from 16 percent to 25 percent) and internet access outside of the home (from 21 percent to 48 percent). As access to mobile telephones has increased, connection to landline telephones has decreased. The percentage of households with a boat, a hot water system and a motor vehicle declined (boat: one percent decline; hot water system: two percent decline; motor vehicle: four percent decline). This is perhaps attributable to those in extended families sharing such items. There was a decline in differences in access to most household items between Tongatapu and the other divisions.

Table 37: Proportion of private households by division and availability of household items (as \% of all households), Tonga: 2006 and 2011

| Item | TONGA |  | Tongatapu |  | Vava'u |  | Ha'apai |  | 'Eua |  | Ongo Niua |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2006 | 2011 | 2006 | 2011 | 2006 | 2011 | 2006 | 2011 | 2006 | 2011 | 2006 | 2011 |
| Boat | 6.0 | 5.0 | 4.0 | 3.0 | 10.0 | 9.0 | 13.0 | 11.0 | 3.0 | 2.0 | 9.0 | 4.0 |
| Hot water system | 9.0 | 7.0 | 11.0 | 8.0 | 6.0 | 5.0 | 3.0 | 2.0 | 3.0 | 1.0 | 0.0 | 0.0 |
| Bath or shower | 95.0 | 100.0 | 95.0 | 100.0 | 96.0 | 100.0 | 94.0 | 100.0 | 98.0 | 100.0 | 91.0 | 100.0 |
| Motor vehicle | 58.0 | 54.0 | 66.0 | 61.0 | 46.0 | 44.0 | 28.0 | 25.0 | 48.0 | 39.0 | 19.0 | 23.0 |
| Refrigerator | 65.0 | 67.0 | 73.0 | 73.0 | 51.0 | 52.0 | 46.0 | 50.0 | 53.0 | 55.0 | 6.0 | 14.0 |
| Washing Machine | 58.0 | 66.0 | 64.0 | 71.0 | 51.0 | 57.0 | 41.0 | 52.0 | 49.0 | 61.0 | 6.0 | 15.0 |
| Television | 72.0 | 77.0 | 83.0 | 83.0 | 45.0 | 69.0 | 45.0 | 50.0 | 70.0 | 74.0 | 11.0 | 23.0 |
| Video/DVD Player | 58.0 | 67.0 | 61.0 | 70.0 | 55.0 | 65.0 | 55.0 | 59.0 | 45.0 | 57.0 | 16.0 | 35.0 |
| Landline telephone | 51.0 | 45.0 | 56.0 | 49.0 | 37.0 | 32.0 | 35.0 | 31.0 | 53.0 | 55.0 | 63.0 | 27.0 |
| Mobile telephone | 73.0 | 94.0 | 83.0 | 95.0 | 59.0 | 94.0 | 46.0 | 94.0 | 56.0 | 92.0 | 0.0 | 61.0 |
| Computer | 16.0 | 25.0 | 20.0 | 30.0 | 8.0 | 16.0 | 4.0 | 11.0 | 5.0 | 14.0 | 1.0 | 4.0 |
| Internet access: |  |  |  |  |  |  |  |  |  |  |  |  |
| at home | 5.0 | 9.0 | 7.0 | 11.0 | 3.0 | 5.0 | 1.0 | 3.0 | 1.0 | 3.0 | 0.0 | 0.0 |
| elsewhere | 21.0 | 48.0 | 26.0 | 56.0 | 13.0 | 36.0 | 8.0 | 18.0 | 8.0 | 35.0 | 1.0 | 3.0 |
| no access | 73.0 | 55.0 | 67.0 | 48.0 | 84.0 | 64.0 | 91.0 | 82.0 | 91.0 | 66.0 | 99.0 | 97.0 |
| Number of households | 17,462 | 18,033 | 11,971 | 12,818 | 2,871 | 2,813 | 1,372 | 1,258 | 899 | 862 | 349 | 282 |

## 6 Population Projections

### 6.1 Introduction

Population projections are procedures involving numerical calculation of future populations' size and their characteristics based on assumptions made about future trends of fertility, mortality and migration. Population projections are important tools used to provide better understanding of the determinants of future population change.

National population projections provide information on likely future population size, age-sex structure, fertility and mortality rates, annual population growth rates, and other demographic structures and summary indicators. Changes in population size and composition have many social, economic, environmental, and political implications. For this reason, population projections serve as a basis for providing future population estimates required for sectoral planning and development policies and programs.

### 6.2 Methodology

The cohort component projection method was employed in preparing the population projections presented in this chapter. The method uses a base population dissagregated by five-year age group (or cohort) and sex. Mortality and migration experienced year by year are accounted for. People who die or emigrate are subtracted. Births are added to the youngest age group after accounting for infant mortality. The population is aged year by year, for the duration of the projection period.

### 6.3 Projection Inputs and Assumptions

### 6.3.1 Input data

In order to project the future Tongan population, the following inputs were utilized:

Base population by five-year age group and sex;
Assumptions of future fertility;
Assumptions of future mortality;
Assumptions of future net migration.

### 6.3.2 Base population and projection period

The 2011 census enumerated population by age and sex was the base used in the population projections. This base population was adjusted to mid-year 2011 (1 July 2011) taking into account changes in the three population components of fertility, mortality and migration. The United Nation's package PAS, procedure MOVEPOP was used to adjust the base population. The result is shown in Table 38. The evaluation of the 2011 Tonga census age and sex distribution data showed that age-sex reporting is reliable.

Table 38: Enumerated and adjusted population by age group and sex, Tonga: 2011

| Age group | Enumerated population (10 November 2011) |  |  | Adjusted mid-year populattion (30 June 2011) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total | Males | Females | Total | Males | Females |
| 0-1 | 2,743 | 1,444 | 1,299 | 2,706 | 1,442 | 1,300 |
| 1-4 | 10,758 | 5,642 | 5,115 | 10,807 | 5,651 | 5,130 |
| 5-9 | 12,875 | 6,672 | 6,203 | 12,869 | 6,678 | 6,190 |
| 10-14 | 12,087 | 6,362 | 5,725 | 12,106 | 6,366 | 5,739 |
| 15-19 | 10,969 | 5,676 | 5,293 | 10,906 | 5,650 | 5,256 |
| 20-24 | 8,230 | 4,131 | 4,099 | 8,298 | 4,167 | 4,131 |
| 25-29 | 7,591 | 3,576 | 4,015 | 7,566 | 3,581 | 3,982 |
| 30-34 | 6,412 | 3,095 | 3,317 | 6,406 | 3,099 | 3,306 |
| 35-39 | 5,756 | 2,784 | 2,972 | 5,791 | 2,807 | 2,984 |
| 40-44 | 5,754 | 2,890 | 2,864 | 5,680 | 2,859 | 2,820 |
| 45-49 | 4,583 | 2,368 | 2,214 | 4,522 | 2,320 | 2,200 |
| 50-54 | 3,718 | 1,796 | 1,921 | 3,694 | 1,781 | 1,913 |
| 55-59 | 3,159 | 1,522 | 1,637 | 3,130 | 1,506 | 1,623 |
| 60-64 | 2,528 | 1,220 | 1,308 | 2,523 | 1,216 | 1,308 |
| 65-69 | 2,143 | 1,010 | 1,133 | 2,146 | 1,016 | 1,129 |
| 70-74 | 1,725 | 836 | 889 | 1,712 | 831 | 881 |
| 75-79 | 1,128 | 520 | 608 | 1,122 | 517 | 605 |
| 80+ | 1,093 | 434 | 659 | 1,087 | 432 | 655 |
| Total | 103,252 | 51,979 | 51,273 | 103,069 | 51,919 | 51,152 |

Further into the future, certainty on population size and structure becomes more difficult. Therefore to reduce uncertainty the projections are restricted to a 20 year period (2011-2031).

### 6.3.3 Fertility assumptions

Fertility, measured as the total fertility rate (TFR) and the corresponding age-specific fertility rates (ASFRs) are required to develop population projections. These rates were derived in Chapter 3.

Assumptions made about changes in future TFR and ASFRs are based on careful examination of historical and current rates. These data show that fertility decline has been experienced in Tonga with a high TFR of about 7.8 births per woman in 1971 down to about 4.8 births per woman in 1991. In 2011, fertility is estimated to have fallen to a TFR of 3.9 births per woman (Fig. 58). Similar fertility declines from high to low levels have been observed around the world. It is likely that Tongan fertility will continue to decline in the future.

Three possible scenarios on future fertility rates in Tonga have been developed (Figure 58):
Assumption 1 - No decline from current TFR
The 2011 census estimated fertility rate of 3.9 live births per woman is kept constant to 2031, to provide a benchmark against which impacts of different fertility scenarios on population growth can be assessed.

Assumption 2 - Constant decline in TFR (based on past trends)
Fertility is assumed to decline from 3.9 births per woman to 3.0 births per woman in 2051, reaching 3.4 by the end of the projection period (2031).

## Assumption 3 - Fast decline in TFR

The current level of 3.9 births per woman is assumed to decline to replacement level (two births per woman) by 2051, reaching 2.8 births per woman by the end of the projection period (2031).

Figure 58: Estimated past levels of fertility and future fertility assumptions for projections, Tonga: 1971-2031


### 6.3.4 Mortality assumptions

Tonga's population has high incidence of Non-Communicable Diseases (NCD) which played a part in constraining improvement in life expectancy over the past two decades. Given prevailing morbidity and mortality conditions in Tonga, life expectancy is unlikely to increase sharply over the projection period. In light of this, the best assumption is a very-slow change scenario between 2011 and 2031. Using the United Nations' 'very-slow pace' model for mortality improvement, life expectancy values for males gradually improve from 69.3 to 71.8 years by 2031, and for females from 73.1 to 75.9 years by 2031 (Fig. 59). These very-slow pace increases are considered most prudent, because they provide the closest match of all UN models to improvements in life expectancy experienced between 1996 to 2011.

Figure 59: Past and future estimated life expectancies: Tonga 1996-2031


### 6.3.5 Migration assumptions

A net migration rate of -1970 persons per annum for the 2006 to 2011 intercensal period was established using the balancing equation (Chapter 3). Hence, the following three assumptions are used for the Tonga population projections:

Assumption 1 - Net migration will be held at zero (counts of immigrants equal counts of emigrants). This scenario is presented for comparative purposes, to provide a benchmark against which impacts of different migration scenarios on population growth can be assessed.

Assumption 2 - Net migration is assumed to be constant at -1970 persons per year until 2021 and gradually decrease from -1970 to reach -985 persons per year by 2031.

Assumption 3 - Net migration is assumed to be constant at -1970 persons per year throughout the projection period.

### 6.4 Projections scenarios

Nine population projection scenarios were prepared, each with a different combination of assumptions of future fertility, mortality and migration (Table 39).

Table 39: Summary of prepared population projection scenarios, Tonga: 2011 to 2031

| Projection scenarios | Fertility (TFR in 2031) | Mortality (2011-2031) | Migration (2011-2031) |
| :---: | :---: | :---: | :---: |
| Scenario 1 | No decline from current TFR (3.9) | 71.8 years for males and 75.9 years for females by 2031 | Zero net migration (immigrants equal emigrants) |
| Scenario 2 | No decline from current TFR (3.9) | 71.8 years for males and 75.9 years for females by 2031 | Net migration: -1970 (until 2021); <br> -1970 slowly declining to -985 (2022 to 2031) |
| Scenario 3 | No decline from current TFR (3.9) | 71.8 years for males and 75.9 years for females by 2031 | Net migration: -1970 (2011-2031) |
| Scenario 4 | Constant decline in TFR to 3.4 by 2031 | 71.8 years for males and 75.9 years for females by 2031 | Zero net migration (immigrants equal emigrants) |
| Scenario 5 | Constant decline in TFR to 3.4 by 2031 | 71.8 years for males and 75.9 years for females by 2031 | Net migration: - 1970 (until 2021); <br> -1970 slowly declining to -985 (2022 to 2031) |
| Scenario 6 | Constant decline in TFR to 3.4 by 2031 | 71.8 years for males and 75.9 years for females by 2031 | Net migration: -1970 (2011-2031) |
| Scenario 7 | Fast TFR decline in TFR to 2.8 by 2031 | 71.8 years for males and 75.9 years for females by 2031 | Zero net migration (immigrants equal emigrants) |
| Scenario 8 | Fast TFR decline in TFR to 2.8 by 2031 | 71.8 years for males and 75.9 years for females by 2031 | Net migration: -1970 (until 2021); <br> -1970 slowly declining to -985 (2022 to 2031) |
| Scenario 9 | Fast TFR decline in TFR to 2.8 by 2031 | 71.8 years for males and 75.9 years for females by 2031 | Net migration: -1970 (2011-2031) |

### 6.5 Projections results

Table 40 summarises nine population projection scenario outcomes for Tonga. In Scenario 1 the population of Tonga would increase most, reaching 162 thousand by 2031. By contrast, under Scenario 9, the Tongan population is projected to decline to 98 thousand by 2031.

Table 40: Summary of population projection scenarios (in '000s), Tonga: 2011 to 2031

|  | $\mathbf{2 0 1 1}$ | $\mathbf{2 0 1 3}$ | $\mathbf{2 0 1 6}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 6}$ | $\mathbf{2 0 3 1}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |  |  |
| Scenario 1 | 103.1 | 107.6 | 114.9 | 128.8 | 144.7 | 162.3 |
| Scenario 2 | 103.1 | 103.4 | 103.7 | 103.8 | 105.4 | 110.6 |
| Scenario 3 | 103.1 | 103.4 | 103.7 | 103.8 | 103.7 | 104.1 |
| Scenario 4 | 103.1 | 107.6 | 114.8 | 128.0 | 142.8 | 158.5 |
| Scenario 5 | 103.1 | 103.3 | 103.6 | 103.3 | 104.3 | 108.5 |
| Scenario 6 | 103.1 | 103.4 | 103.6 | 103.3 | 102.7 | 102.2 |
| Scenario 7 | 103.1 | 107.6 | 114.6 | 126.9 | 139.9 | 152.3 |
| Scenario 8 | 103.1 | 103.4 | 103.6 | 103.0 | 103.7 | 107.4 |
| Scenario 9 | 103.1 | 103.4 | 103.4 | 102.3 | 100.3 | 97.8 |

In order to measure the impact of change in fertility on Tonga's future population, three scenarios ( 1,4 and 7), including migration assumption 1 (zero net migration) are examined. Thereafter, the impact of migration is measured by comparing Scenarios 1, 2 and 3, which combine all three migration assumptions with fertility assumption 1 (constant TFR of 3.9).

### 6.5.1 The impact of fertility

The three different fertility assumptions combined with zero net migration resulted in three different projections outcomes (Table 41 and Fig. 60). These different projections highlight the impact of different levels of fertility on the future size of the Tongan population. The higher the assumed fertility level, the higher the population outcome.

Table 41: Projected populations (in '000s) based on three fertility scenarios and zero net migration, Tonga: 2011 to 2031

|  | Projection scenarios $^{1}$ | $\mathbf{2 0 1 1}$ | $\mathbf{2 0 1 3}$ | $\mathbf{2 0 1 6}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 6}$ | $\mathbf{2 0 3 1}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fertility assumptions | (Scenario 1) | 103.1 | 107.6 | 114.9 | 128.8 | 144.7 | 162.3 |
| No decline from current TFR (3.9) | (Scenario 4) | 103.1 | 107.6 | 114.8 | 128.0 | 142.8 | 158.5 |
| Constant decline in TFR to 3.4 by 2031 | (Scenario 7) | 103.1 | 107.6 | 114.6 | 126.9 | 139.9 | 152.3 |
| Fast TFR decline in TFR to 2.8 by 2031 |  |  |  |  |  |  |  |

${ }^{1}$ All scenarios based on zero net migration from 2011 to 2031.

The three population projection outcomes are as follows.

Scenario 1: Assuming that the current level of fertility of 3.9 births per woman continues for the entire projection period, a population of 129 thousand would result by 2021 and 162 thousand by 2031.

Scenario 4: Applying a constant decline in TFR births per woman to 3.4 by 2031 results in a population of 128 thousand by 2021 and 158 thousand by 2031.

Scenario 7: Applying a fast TFR decline to 2.8 births per woman by 2031 results in a population of 127 thousand by 2021 and 152 thousand by 2031.

Scenario 1 ( 162 thousand people by 2031) results in ten thousand more people in the Tongan population by 2031 as compared to Scenario 7 (152 thousand people by 2031).

Figure 60 shows that in the past, the rate of population increase was higher before 1976 and very low after 1976. Figure 60 shows the future impact of different fertility scenarios by removing the effect of migration (zero net migration). The rate of increase in Scenario 7, where fertility rates fall to 2.8 births per woman by 2031 provides the closest match to pre-1976 rates of growth because of zero net migration. By contrast, the no change in current TFR of 3.9 projection scenario and the constant TFR decline to 3.4 by 2031 projection scenario would constitute additional increases in population growth rates because fertility is higher than in Scenario 7. This exercise demonstrates that without migration, even if fertility declines by one child per woman over the next 20 years, the population will increase by about $48 \%$ on its current level.

Figure 60: Past and future population trends based on three fertility assumptions and zero net migration, Tonga: 1956-2031


### 6.5.2 The impact of migration

The three different migration assumptions combined with constant fertility resulted in three different projections (Table 42 and Fig. 61). Emigration limits population growth and so, these different projections highlight the impact of different levels of migration on the future size of the Tongan population.

Table 42: Projected populations (in '000s) based on TFR of 3.9 births per woman and three net migration assumptions, Tonga: 2011 to 2031

|  | Projection scenarios $^{1}$ | $\mathbf{2 0 1 1}$ | $\mathbf{2 0 1 3}$ | $\mathbf{2 0 1 6}$ | $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 6}$ | $\mathbf{2 0 3 1}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mgration assumptions | (Scenario 1) | 103.1 | 107.6 | 114.9 | 128.8 | 144.7 | 162.3 |
| Net migration: Zero | (Scenario 2) | 103.1 | 103.4 | 103.7 | 103.8 | 105.4 | 110.6 |
| Net migration: -1970 (until 2021); |  |  |  |  |  |  |  |
| -1970 slowly declining to -985 (2022 to 2031) | (Scenario 3) | 103.1 | 103.4 | 103.7 | 103.8 | 103.7 | 104.1 |
| Net migration: -1970 (2011-2031) |  |  |  |  |  |  |  |

${ }^{1}$ All scenarios based on TFR of 3.9 from 2011 to 2031.
The three population projection scenarios are as follows:
Zero net migration (Scenario 1). Assuming that immigration and emigration are balanced at zero during the entire projection period, a population of 129 thousand would occur by 2021 and 162 thousand by 2031.

Medium migration (Scenario 2). Applying constant net migration of -1970 persons per year until 2021 and gradually decreasing migration to -985 persons per year by the end of the 20 year projection period results in no population growth by 2021, followed by an increase of nearly seven thousand people to over 110 thousand by 2031.

High migration (Scenario 3). Applying constant net migration of -1970 persons per year until 2031 results in population growth of only one thousand people by the end of the 20 year projection period.

Scenario 1 (162 thousand people by 2031) results in 58 thousand more people in the Tongan population by 2031 as compared to Scenario 3 ( 104 thousand people by 2031).

Figure 61 presents, past and future population trends produced from census data and the three projection scenarios (Scenarios 1, 2 and 3) based on different migration assumptions and no decline in TFR from its present level of 3.9 births per woman. Figure 61 shows that with zero net migration and fertility of 3.9 births per woman over the 2011 to 2031 period, the rate of population growth is far higher with no loss of population through migration than for the other two migration scenarios. Indeed, the average annual growth rate for the zero net migration scenario would be $2.3 \%$ as opposed to $0.04 \%$ for Scenario 3, where emigration is constant at -1970 persons per year.

Figure 61: Past and future population trends based on constant TFR of 3.9 births per woman and three net migration assumptions: Tonga: 2011-2031


It can be concluded from Tables 41 and 42 and Figures 60 and 61 that were the levels of emigration and fertility experienced in the recent past to be maintained, the population would grow only very slowly, because out-migration offsets the effect on population growth of fertility rates well above the level of replacement (about two children per woman). However, it needs to be considered that levels of fertility are likely to decline in future, as they have in the past and that levels of migration are also subject to change.

### 6.6 Most likely outcome (Projection Scenario 5)

The ability of a projection scenario to accurately determine probable future population size and structure becomes more tenuous the further into the future the projection goes. Therefore, several projection scenarios need to be produced to allow demographers and planners to choose an outcome that seems most plausible and suited to planning strategies. Projection Scenario 5 constitutes the most likely outcome for Tonga.

Population changes aligned with those presented in Scenario 5 appears to be the most likely outcome because:

- The current fertility level of 3.9 births per woman is expected to decline as it has in Tonga's recent past, and based on historical worldwide observations of countries with similar fertility rates in the past. A slow decline in TFR, reaching a TFR of 3.0 births per woman by 2051 is probable, based on the past trend in fertility decline that has been achieved. A fast TFR decline to 2.0 births per woman by 2051 seems to be overly optimistic for Tonga.
- Although future migration patterns and levels are impossible to predict, net migration of -1970 people per year until 2021 and thereafter, declining gradually to reach -985 people per year by 2031 appears to be the most realistic assumption for Tonga. This is because net migration rates have been estimated at -1800 people per year for the period 1996-2006 and at -1970 people per year for the period 2006-2011. It is logical to assume that since this magnitude of outmigration has been sustained for 15 years, this trend is likely to continue for at least another ten years (to 2021). However, Scenario 6 demonstrates that population decline would result even if fertility declined at a constant rate as experienced in the recent past because of sustained longterm out-migration of -1970 persons per year until 2031. Such high levels of migration are not without their costs in terms of skills shortages and ageing of the population structure. Therefore, in the longer term it is logical to assume that demand for skilled labour in Tonga would drive down migration rates. Reaching a net migration rate of -985 people per annum by 2031 is, therefore, a plausible outcome.

In the following analysis, the most likely population projection scenario (Scenario 5) is compared to Scenario 3, which represents sustained experience of current conditions: a TFR of 3.9 births per woman and a net migration rate of -1970 persons per annum. Table 43 presents future population indicators from these two scenarios.

As shown in Table 43, in the most likely scenario (Scenario 5), the population would increase to 108 thousand people by 2031. Scenario 5 results in about 4,400 more people in the Tongan population in 2031 as compared to experience of currently prevailing fertility and migration circumstances into the future, under Scenario 3.

Table 43: Population indicators, Projection Scenarios 3 \& 5, Tonga: 2011 to 2031

| Population indicators | 2011 | Scenario 3 |  |  |  | Scenario 5 |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2013 | 2016 | 2021103.8 | 2031 | 2013 | 2016 | 2021 | 2031 |
| Population ('000s) | 103.1 | $103.4 \quad 103.7$ |  |  | 104.1 | 103.4 | 103.6 | 103.3 | 108.5 |
| Population by broad age groups (\%) |  |  |  |  |  |  |  |  |  |
| 0-14 years | 37.3 | 37.6 | 37.5 | 36.8 | 35.6 | 37.5 | 37.4 | 36.5 | 33.9 |
| 15-59 years | 54.3 | 54.0 | 53.8 | 54.0 | 53.2 | 54.0 | 53.9 | 54.2 | 55.2 |
| 60 years and over | 8.3 | 8.4 | 8.7 | 9.2 | 11.2 | 8.4 | 8.7 | 9.3 | 10.9 |
| Deoendency ratio | 84.1 | 85.1 | 85.8 | 85.2 | 88.1 | 85.1 | 85.6 | 84.4 | 81.2 |
| Median age | 21.3 | 21.0 | 20.8 | 20.9 | 21.5 | 21.0 | 20.8 | 21.0 | 22.4 |
| Crude Birth Rate (per 1000 population) | 28 | 27 | 26 | 25 | 27 | 27 | 26 | 25 | 26 |
| Crude Death Rate (per 1000 population) | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 6 | 6 |
| Average annual growth rate (\%) | 0.2 | 0.2 | 0.1 | 0.0 | 0.0 | 0.2 | 0.1 | -0.1 | 0.5 |

Figure 62: Projected populations by age group, Scenarios 3 \& 5, Tonga: 2011 to 2031


Population scenarios/ Year

In Scenario 5, the proportion of the population aged 0-14 years (as part of the total population) would decline by $3.4 \%$ (about 1,700 people) by 2031 as a result of fertility decline to 3.4 births per woman (Table 43 and Fig. 62). By contrast, in Scenario 3, with a constant fertility rate of 3.9 births per woman, the proportion of the population aged $0-14$ years would decline by $1.7 \%$ (about 1,400 people). In the latter case, even though fertility remained constant, the decline would occur because of outmigration of some 0-14 year old children.

The proportion of the population of working age (15-59 years) would increase by around $1 \%$ to $55 \%$ by 2031 under Scenario 5, but would fall to around $53 \%$ under Scenario 3 (Table 43). The size of the working age population would increase under Scenario 5 and decline under Scenario 3 (Fig. 62). In Scenario 5, there would be around 60 thousand by 2031. In Scenario 3, the population of working age would decline to around 55 thousand by 2031.

The proportion of the population aged 60 years and over would increase by around 3\% under Scenario 3 and $2.6 \%$ under Scenario 5 (Table 43). Similarly, the size of the population aged 60 years and older would increase under both scenarios, reaching almost 12 thousand people by 2031 in Scenario 5 (Fig. 62).

The median age would increase by just over one year, from 21.3 years in 2011 to 22.4 years by 2031 under Scenario 5, due to lower fertility rates and increasing life expectancy (Table 43).

The two scenarios have different trends of change in age dependency ratios (Table 43): Scenario 5, the most likely scenario, has a volatile dependency ratio (due to declining future fertility and changing levels of out-migration). Overall, the dependency ratio would decline under Scenario 5, from 84 in 2011 to 81 by 2031. By contrast, Scenario 3 has constant high fertility and out migration, so that the dependency ratio would increase to 88 by 2031. Youth dependency would place greater demands on a proportionately smaller working age population under Scenario 3, whereas under the most likely scenario (Scenario 5), a proportionately larger working age population would support a smaller dependent population in the future.

In the most likely scenario (Scenario 5), the projected crude birth rate (Table 43) would decline from 28 births per 1,000 population (reported in 2011) to 26 births per 1,000 population by 2031. This is a result of declining fertility rates. The crude death rate would decline slightly to around 6 deaths per 1,000 population by 2031 as a result of increases in life expectancy.

Tonga's average annual population growth rate would be very low, though volatile under Scenario 5. Overall, under Scenario 5 the growth rate would increase from $0.2 \%$ in 2011 to $0.5 \%$ by 2031 (Table 43). Low growth rates are more manageable for government planners aiming to house, educate, feed and provide employment, health care facilities and other services for their population.

The different impacts on the population size and structure are further illustrated using population pyramids (Fig. 63). The shaded areas represent the enumerated 2011 population size by sex and five-year age group, and the outlined areas represent the estimated (projected) population size in 2031. Scenario 3 is presented on the left and Scenario 5 (the most likely scenario) is presented on the right of Figure 63.

Figure 63: Tonga Population pyramids, Scenarios 3 \& 5: 2011 (shaded) and 2031 (outlined)


The different shape of the two pyramids shows the difference in the population size and structure by 2031. Declining fertility (Scenario 5) results in a smaller population in younger age groups as compared to constant fertility (Scenario 3). In addition, the impact of emigration on the future population size and structure of both population scenarios can be clearly seen by comparing the working age populations of both pyramids. Constant, high out-migration of almost 200 people per year results in a smaller working aged population (Scenario 3) than the reducing migration rates after 2021 factored into Scenario 5. There is little discernible difference in the populations aged 60 years and older because these age groups are not actively involved in migration.

## 7 POLICY IMPLICATIONS

### 7.1 The census and policy formulation

The information in this report provides policy-makers, planners, political parties and community leaders with current, high-quality information on population structure, population processes, and household and socioeconomic characteristics in order to plan for a sustainable future.

Effective policy-making should provide the framework for sustainable development within which the interrelationship of population, environment, and all possible socio-economic aspects of a country can prosper cohesively.

This chapter provides a synopsis of the information contained in the other chapters of the report and considers their policy implications.

### 7.2 Fertility

Tonga's annual population growth of $0.2 \%$, is the result of a relatively high natural growth rate counterbalanced by high emigration rates. The high natural growth is the result of high fertility rates. The average number of children per woman (TFR) dropped marginally from 4.3 to 4.2 during the tenyear period from 1996 to 2006 and decreased to 3.9 children per woman by 2011.

Fertility levels remain high. Should the government wish to influence fertility levels, policies and programmes directed toward the expansion of family-planning services and reproductive health programmes should be considered. Availability and accessibility of family planning services for women (and their partners) of all ages will empower them to make conscious decisions about the number and spacing of their births.

### 7.3 Mortality

Estimates on the level of mortality presented in this analysis suggest that infant mortality rates declined by two deaths per 1000 births and life expectancy at birth improved by two years for males and 0.1 years for females during the period 2006-2011. The advantage in life expectancy of females over males declined by 1.9 years (from 5.7 years to 3.8 years) during the period 2006 to 2011.

Improved mortality rates mean that healthier people live longer lives. In working towards this goal, the following efforts should be made:

- improve infant, child and maternal health by improving primary health care programmes;
- expand immunization programmes;
- combat the prevalence of diabetes and heart disease;
- provide a hygienic and safe living environment;
- promote healthy eating habits and food nutrition programmes;
- advocate a general healthy life style including regular physical exercise;
- discourage smoking and excessive alcohol consumption; and
- prevent HIV/AIDS and STDs.


### 7.4 Vital statistics

A well-functioning registration system, able to supply accurate and timely statistics on population developments, is of fundamental importance to planners and policy-makers. To make reliable estimates regarding fertility and mortality indicator levels and trends, a complete registration system needs to be maintained that records the number of deaths by age and sex, and the number of births by sex and by age of mother. Effective coordination between all agencies involved is required.

Accurate birth and death registration data is required to maintain an understanding of changes in Tonga's population size and structure between censuses. Such information is crucial for inter-censal policy planning purposes and to develop meaningful population projections projections.

### 7.5 Internal migration

Levels of out migration from the outer Islands were slightly higher in the 2001 to 2006 intercensal period (-1193 net migrants) than were experienced during the 2006 to 2011 intercensal period (-1125 net migrants). However, almost every district in the divisions of 'Eua, Vava'u, Ha'apai, and Ongo Niua have shown negative population growth rates (i.e. a population decline) during the 2006 to 2011 intercensal period, which points to a possible sustained dissatisfaction with living conditions there relative to those in Tongatapu. The reasons may include the lack of post-secondary education opportunities (for tertiary or vocational/technical qualifications) and the lack of employment options. Nuku'alofa attracts people by offering higher living standards through the availability and accessibility of services such as medical and educational institutions, entertainment facilities, and a wider range of employment opportunities.

If the government wishes to change this continued trend of population decline outwith Tongatapu, at least some of the perceived disadvantages of living in the outer islands need to be eased by improving services and opportunities there.

### 7.6 International migration

The Ministry of Foreign Affairs and Immigration collects international migration information on arrival and departure cards. These data show large annual variations across the 2006 to 2011 period, but on average correspond closely with net migration estimated by comparing intercensal population growth with estimated rates of natural increase for the same time period.

Planners and policy-makers require more detailed and timelier information on the demographic makeup of opposing migration streams in order to make and implement realistic policy decisions. Hence, further analyses are needed of information on age, sex and nationality of all arriving and departing passengers in Tonga.

Tonga's 2006 to 2011 intercensal estimates of net migration are -19 migrants per 1000 population. This translates into a net loss of about 1,970 people annually. These relatively high rates of (negative) migration offset to a large extend the otherwise high natural growth rate of Tonga's population. The fact that many people are leaving Tonga points to dissatisfaction with local living conditions. It shows that those who emigrate or who are planning to leave expect to better themselves, in ways that vary from person to person. A specially designed survey may shed more light on the specific motives and aspirations of migrants.

### 7.7 Population projections

Knowledge about the current size and structure of a country's population is needed for the formulation and implementation of policies and programmes in almost all areas of public life. Because policies are aimed at achieving goals in the future, knowledge about future population trends is required.

The nine population projection scenarios presented in this paper demonstrate the different effects on future population size and structure over a 20 year period (2011 to 2031). A range of fertility and migration scenarios were considered: constant or declining fertility with constant net out-migration, declining net out-migration or zero net migration.

The most likely scenario is for fertility to decline to 3.4 births per woman by 2031 (given past trends of fertility decline) and for migration to remain constant at -1970 people per year until 2021 and then
decline from -1970 to -985 people per year by 2031. This scenario results in a stable population until 2021 followed by slow growth to 108,500 people by 2031 in response to declining net out-migration rates.

As a result of declining fertility rates, the proportion of those under the age of 15 years would decline by more than $3 \%$. Emigrants are predominately of working age ( $15-59$ years of age) and consequently, under the most likely future population scenario, the working age population is not expected to increase until the pace of outmigration declines (after 2021). As a result of increasing life expectancy, the proportion of the population aged 60 and older will increase from $8 \%$ of the total population to $11 \%$ by 2031.

Strategies must be developed to entice current residents to remain in Tonga, otherwise future reductions in fertility will lead to the unwelcome prospect of population decline alongside increasing proportions of elderly dependents in the population structure. Appropriate health and social welfare programs must be in place to cope with the needs of an ageing population. Additional pressure would be placed on these resources by Tongans who had previously emigrated to other countries returning to Tonga to retire, which is a common feature of international migration behaviour.

### 7.8 Households

It is not just population growth that contributes to an increased demand for water and energy supply, waste disposal, sewage connections and general infrastructure, but an increase in the number of households. Almost 850 new households were formed in Tongatapu between 2006 and 2011. The largest increases were in Kolofo'ua ( 300 households) and Nukunuku ( 215 households). Even if the population size remained stable, the number of households would still increase when households and/or family structures break up into smaller units, such as single person households, single-parent households and households made up of unrelated individuals.

### 7.9 Education

The population's educational level is a key indicator of the development and quality of life in a country. Education plays an important role in development through its links with demographic, as well as economic and social factors. In general, there is a close and complex relationship between education, fertility, morbidity and mortality: when couples are better educated, they tend to have fewer children, their children's health status improves, and their survival rates tend to increase. Higher levels of educational attainment also contribute to a better-qualified workforce, higher wages, and better economic performance.

With over $90 \%$ of all Tongans achieving secondary and tertiary education compared to about $80 \%$ in 2006 and only $57 \%$ in 1986, these data illustrate almost a quarter of a century of consistent and solid improvement in educational attainment. Compared with 2006, when men had slightly higher educational attainment than women, gender parity had been achieved by 2011.

Since higher proportions of school-leavers have secondary education (and post-secondary qualifications), this has positive implications for Tonga's labour market for both the private and public sectors. Moreover, whilst it is a benefit that young people leave the country to attend higher educational institutions, it is in Tonga's interest that suitable employment opportunities are available so that some graduates have the opportunity to return to Tonga to work. Policy must ensure that employment opportunities are generated both in Tongatapu and the outer islands for an increasingly qualified youth.

### 7.10 Economic activity and the labour market

Economic activity and employment are shaped by the size of the working-age population, the educational skill level of the labour force, and the economic resources available to a country.

Although a high proportion (57 percent) of the Tonga population aged 15 and older was economically active (in the labour force), only a relatively small proportion ( 37 percent) was engaged in paid employment. These relatively few people $(23,438)$ supported the rest of the population with respect to paid income, meaning that one employed person supports, on average, about 3.5 other people.

Government and business officials are encouraged to collaborate in developing innovative strategies that will promote economic diversification and growth which could increase employment opportunities for Tongan people.

### 7.11 The environment

Because natural resources of the land and sea form the basis of a healthy life for Tonga's communities and people, maintaining a healthy and sustainable living environment should be a top priority for the Government of Tonga.

Due to high rates of out-migration, the population of Tonga is growing at only $0.2 \%$ per annum. However, the distribution of the population is changing, with growth rates in Tongatapu of $0.9 \%$, $1.5 \%$ in Kolomotu'a and $2.5 \%$ in Nukunuku.

The size and density of the population has a direct impact on water and energy consumption, sewage and waste production, general infrastructure such as roads, the use of land, and the development of agriculture and marine resources.

Between the 2006 and 2011 censuses, reliance on collected firewood as a cooking fuel has increased ( 40 percent of households collected firewood for cooking in 2006 compared with 45 percent of households in 2011), while use of gas has declined in all divisions of Tonga ( 54 percent of households used gas for cooking in 2006 compared with 50 percent of households in 2011). The shift towards firewood as a cooking fuel may be attributable to the increasing burden of the cost of gas on household expenditures. In a country with a small environmental resource base, this is a concern for future sustainability of tree cover and return of nutrients to the soil through decomposition of wood and leaves.

Significant changes in waste handling have occurred in Tongatapu between the 2006 and 2011 censuses, with the $45 \%$ of households utilising commercial collection as compared to $5 \%$ using collection services in 2006. Waste can be a resource, rather than an environmental hazard, particularly through recycling. Therefore, a shift towards professional waste handling is a positive development in environmental terms over burning of waste, which was practiced by $80 \%$ of households in Tongatapu in 2006. However, there is still room for improvement in waste management across Tonga, with between $86 \%$ and $96 \%$ of households in the outer islands continuing to dispose of waste through burning in 2011.

Whilst the lifestyles of Tonga's population may present an environmental threat, the environment may also pose a hazard to Tonga's population. One example of this is evident in differences between the 2006 and 2011 censuses in Ongo Niua following the 2009 Tsunami, where the percentage of households living in dwellings with walls (re)-constructed of wood has increased and the percentage of households living in dwellings with piped water supplies has decreased. In light of the effects of climate change, it is worth noting that such environmental risks to the Tongan population are likely to increase in the future.

## GLOSSARY

| Indicator | Definition |
| :--- | :--- |
| Age-dependency ratio | Number of people in the "dependent" age category (population <br> younger than 15 years plus population 60 years and older) per <br> 100 in the "economically productive ages" 15-59 years |
| Average age at (first) marriage | Approximation of average age at marriage, based on the <br> proportion of population never married (single) |
| Balance equation | Population growth = births - deaths + net migration |
| Child mortality rate (4q1) | The probability of dying between age 1 and age 5 |
| Crude birth rate (CBR) | Estimated number of births per 1,000 population |
| Crude death rate (CDR) | Estimated number of deaths per 1,000 population |
| Crude net migration rate | Rate of growth minus rate of natural increase |
| Employment-population ratio |  |
| Infant mortion of employed people in cash work (by a given age |  |
| and se same age and sex corresponding total number of people of |  |

Teenage fertility rate

Total fertility rate (TFR)
Under 5 mortality (q5) The probability of dying between birth and age 5
Urban population

Number of births by women aged 15-19 per 1,000
Average number of children per woman

Total population of Kolofo'ou, Ma'ufanga and Kolomotu'a villages

Appendix 1: Arriaga method for estimating age-specific fertility rates (ASFRs) for two points in time and age patterns of fertility (Arriaga-Brass)*

| First Enumeration: Nov 2006 <br> Fertility pattern by age of woman at enumeration |  |  | Fertility Consistent with C.EB. (A.S.F.R.) | Fertility <br> Pattern <br> by Age at <br> Survey Date | Fertility <br> Pattern <br> by Age at <br> Birth of Child |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age Group <br> of Woman | Children <br> Ever Born | Age Specific <br> Fertility <br> Pattern <br> (A.S.F.P.) |  |  |  | Cumulation of |  | Adjustment Factors | Age Specific Fertility Rates Based on Adjustment Factor for the Age Group |  |  |
|  |  |  |  |  |  | A.S.F.R. | $\qquad$ |  |  |  |  |
|  |  |  |  |  |  |  |  |  | 20-25 | 25-30 | 30-35 |
| November 2006 to November 2007 |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | Recorded | Calculated |  |  |  |  |  |  |
| 15-20 | 0.030 | 0.016 | 0.028 | 0.016 | 0.021 | 0.028 | 0.021 | 1.331 | 0.025 | 0.026 | 0.025 |
| 20-25 | 0.435 | 0.124 | 0.157 | 0.124 | 0.135 | 0.185 | 0.156 | 1.188 | 0.160 | 0.161 | 0.161 |
| 25-30 | 1.418 | 0.188 | 0.230 | 0.188 | 0.192 | 0.416 | 0.348 | 1.196 | 0.228 | 0.229 | 0.228 |
| 30-35 | 2.597 | 0.197 | 0.207 | 0.197 | 0.195 | 0.623 | 0.543 | 1.148 | 0.232 | 0.233 | 0.232 |
| 35-40 | 3.640 | 0.154 | 0.124 | 0.154 | 0.146 | 0.747 | 0.689 | 1.084 | 0.173 | 0.174 | 0.174 |
| 40-45 | 4.228 | 0.055 | 0.061 | 0.055 | 0.048 | 0.808 | 0.737 | 1.095 | 0.058 | 0.058 | 0.058 |
| 45-50 | 4.433 | 0.014 | 0.022 | 0.014 | 0.011 | 0.830 | 0.748 | 1.110 | 0.013 | 0.013 | 0.013 |
| Total Fertility Rate: |  | 4.1 |  |  | 3.7 |  |  |  | 4.4 | 4.5 | 4.5 |
| First Enumeration: Nov 2011 |  |  |  |  |  |  |  |  |  |  |  |
| Fertility pattern by age of woman at enumeration |  |  |  |  |  |  |  |  |  |  |  |
| Age Group <br> of Woman | Children Ever Born | Age Specific <br> Fertility <br> Pattern <br> (A.S.F.P.) | Fertility <br> Consistent with C.EB. (A.S.F.R.) | Fertility <br> Pattern <br> by Age at <br> Survey Date | Fertility <br> Pattern <br> by Age at <br> Birth of Child | Cumulation of |  | Adjustment Factors | Age Specific Fertility Rates Based on Adjustment Factor for the Age Group |  |  |
|  |  |  |  |  |  | A.S.F.R. | Fertility <br> Pattern by <br> Age at Birth |  |  |  |  |
|  |  |  |  |  |  |  |  |  | 20-25 | 25-30 | 30-35 |
| November 2010 to November 2011 |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  | Recorded | Calculated |  |  |  |  |  |  |
| 15-20 | 0.034 | 0.021 | 0.031 | 0.021 | 0.027 | 0.031 | 0.027 | 1.127 | 0.031 | 0.029 | 0.030 |
| 20-25 | 0.475 | 0.134 | 0.163 | 0.134 | 0.147 | 0.194 | 0.174 | 1.115 | 0.164 | 0.156 | 0.160 |
| 25-30 | 1.460 | 0.213 | 0.219 | 0.213 | 0.214 | 0.414 | 0.389 | 1.064 | 0.239 | 0.228 | 0.234 |
| 30-35 | 2.497 | 0.177 | 0.179 | 0.177 | 0.171 | 0.593 | 0.560 | 1.059 | 0.191 | 0.182 | 0.187 |
| 35-40 | 3.404 | 0.123 | 0.118 | 0.123 | 0.116 | 0.711 | 0.676 | 1.052 | 0.130 | 0.124 | 0.127 |
| 40-45 | 4.085 | 0.049 | 0.069 | 0.049 | 0.043 | 0.781 | 0.719 | 1.085 | 0.048 | 0.045 | 0.047 |
| 45-50 | 4.453 | 0.008 | 0.025 | 0.008 | 0.006 | 0.806 | 0.725 | 1.112 | 0.007 | 0.006 | 0.006 |
| Total Fertility Rate: |  |  | 4.0 |  | 3.6 |  |  |  | 4.0 | 3.9 | 3.9 |

* = MORTPAK 4.1, procedure FERTPF, United Nations


## Appendix 2: Fertility estimates based on the Arriaga method*


*= PAS spreadsheets, procedure AFRE-2, US Census Bureau

Appendix 3: Child mortality indices based on number of children ever born and still alive, for males*, Tonga: 2011

| Age Group of women | Reference Date | United Nations Models |  |  |  |  | Reference Date | Coale-Demeny Model |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | (Palloni-Heligman Equations) |  |  |  |  |  | (Trussell Equations) |  |  |  |
|  |  | Latin Am. | Chilean | So. Asian | Far East | General |  | West | North | East | South |
| Infant mortality rate |  |  |  |  |  |  |  |  |  |  |  |
| 15-20 | Oct 2010 | < . 028 | < .031 | < . 032 | < . 015 | < . 024 | Jan 2011 | < .013 | $<.017$ | < . 016 | < . 036 |
| 20-25 | Nov 2009 | < . 028 | $<.031$ | $<.032$ | < . 015 | < . 024 | Jan 2010 | 0.015 | $<.017$ | < . 016 | $<.036$ |
| 25-30 | Sep 2008 | < . 028 | < .031 | < . 032 | 0.022 | < . 024 | Aug 2008 | 0.022 | 0.021 | 0.023 | < . 036 |
| 30-35 | Dec 2006 | $<.028$ | $<.031$ | $<.032$ | 0.019 | < . 024 | Sep 2006 | 0.02 | 0.019 | 0.021 | $<.036$ |
| 35-40 | Oct 2004 | < . 028 | $<.031$ | $<.032$ | 0.021 | < . 024 | Jul 2004 | 0.021 | 0.02 | 0.023 | $<.036$ |
| 40-45 | Jan 2002 | < . 028 | $<.031$ | < . 032 | 0.021 | < . 024 | Jan 2002 | 0.021 | 0.02 | 0.023 | < . 036 |
| 45-50 | Nov 1998 | < . 028 | < . 031 | < . 032 | 0.024 | 0.025 | Dec 1998 | 0.023 | 0.021 | 0.026 | $<.036$ |
|  |  |  |  |  |  |  |  |  |  |  |  |
| 15-20 | Oct 2010 | < . 008 | $<.004$ | $<.008$ | < . 002 | < . 005 | Jan 2011 | $<.002$ | $<.004$ | < . 002 | $<.005$ |
| 20-25 | Nov 2009 | < . 008 | < . 004 | < . 008 | < . 002 | < . 005 | Jan 2010 | 0.002 | < . 004 | < . 002 | < . 005 |
| 25-30 | Sep 2008 | $<.008$ | < . 004 | < . 008 | 0.004 | < . 005 | Aug 2008 | 0.004 | 0.005 | 0.002 | < . 005 |
| 30-35 | Dec 2006 | < . 008 | < . 004 | < . 008 | 0.004 | < . 005 | Sep 2006 | 0.003 | 0.004 | 0.002 | < . 005 |
| 35-40 | Oct 2004 | < . 008 | < . 004 | < . 008 | 0.004 | < . 005 | Jul 2004 | 0.004 | 0.005 | 0.002 | < . 005 |
| 40-45 | Jan 2002 | $<.008$ | $<.004$ | $<.008$ | 0.004 | < . 005 | Jan 2002 | 0.004 | 0.004 | 0.002 | $<.005$ |
| 45-50 | Nov 1998 | < . 008 | < . 004 | < . 008 | 0.005 | 0.005 | Dec 1998 | 0.004 | 0.005 | 0.003 | < . 005 |
| Child mortality |  |  |  |  |  |  |  |  |  |  |  |
| 15-20 | Oct 2010 | $<.036$ | < 035 | $<.040$ | < . 017 | < . 029 | Jan 2011 | $<.015$ | $<.021$ | < . 018 | $<.041$ |
| 20-25 | Nov 2009 | < . 036 | $<.035$ | <. 040 | < . 017 | < . 029 | Jan 2010 | 0.017 | < . 021 | $<.018$ | $<.041$ |
| 25-30 | Sep 2008 | $<.036$ | $<.035$ | $<.040$ | 0.026 | < . 029 | Aug 2008 | 0.026 | 0.026 | 0.025 | $<.041$ |
| 30-35 | Dec 2006 | $<.036$ | $<.035$ | $<.040$ | 0.023 | < . 029 | Sep 2006 | 0.023 | 0.023 | 0.023 | $<.041$ |
| 35-40 | Oct 2004 | $<.036$ | < 035 | $<.040$ | 0.025 | < . 029 | Jul 2004 | 0.025 | 0.025 | 0.025 | $<.041$ |
| 40-45 | Jan 2002 | < . 036 | < 035 | < 040 | 0.025 | < . 029 | Jan 2002 | 0.025 | 0.024 | 0.025 | $<.041$ |
| 45-50 | Nov 1998 | < . 036 | < . 035 | < . 040 | 0.029 | 0.03 | Dec 1998 | 0.027 | 0.026 | 0.029 | < . 041 |

[^5]Appendix 4: Child mortality indices based on number of children ever born and still alive, for females*, Tonga: 2011

| Age Group of women | Reference Date | United Nations Models |  |  |  |  | Reference Date | Coale-Demeny Model |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\begin{aligned} & \text { (Palloni-Heligman } \\ & \text { Equations) } \\ & \hline \end{aligned}$ |  |  |  |  | (Trussell Equations) |  |  |  |
|  |  | Latin Am. | Chilean | So. Asian | Far East | General |  | West | North | East | South |
| Infant mortality rate |  |  |  |  |  |  |  |  |  |  |  |
| 15-20 | Oct 2010 | 0.037 | 0.041 | 0.037 | 0.037 | 0.037 | Jan 2011 | 0.041 | 0.04 | 0.041 | 0.039 |
| 20-25 | Nov 2009 | < . 028 | $<.031$ | $<.032$ | $<.015$ | < . 024 | Jan 2010 | $<.013$ | < . 017 | < . 016 | $<.036$ |
| 25-30 | Aug 2008 | < . 028 | $<.031$ | < .032 | < . 015 | < . 024 | Jul 2008 | < .013 | $<.017$ | < . 016 | < . 036 |
| 30-35 | Nov 2006 | < . 028 | $<.031$ | $<.032$ | 0.016 | < . 024 | Aug 2006 | 0.016 | $<.017$ | 0.017 | $<.036$ |
| 35-40 | Jul 2004 | $<.028$ | $<.031$ | $<.032$ | $<.015$ | < . 024 | May 2004 | < .013 | $<.017$ | < . 016 | $<.036$ |
| 40-45 | Nov 2001 | < . 028 | $<.031$ | < .032 | 0.018 | < . 024 | Oct 2001 | 0.017 | < . 017 | 0.019 | < . 036 |
| 45-50 | Aug 1998 | < . 028 | $<.031$ | < .032 | 0.018 | < . 024 | Sep 1998 | 0.016 | < . 017 | 0.018 | < . 036 |
| Probability of dying between ages 1 and 5 |  |  |  |  |  |  |  |  |  |  |  |
| 15-20 | Oct 2010 | 0.012 | 0.005 | 0.011 | 0.01 | 0.01 | Jan 2011 | 0.012 | 0.018 | 0.007 | 0.005 |
| 20-25 | Nov 2009 | < . 008 | < . 004 | < . 008 | < . 002 | < . 005 | Jan 2010 | < . 002 | < . 004 | < . 002 | < . 005 |
| 25-30 | Aug 2008 | < . 008 | < . 004 | < . 008 | < . 002 | < . 005 | Jul 2008 | < . 002 | < . 004 | < . 002 | < . 005 |
| 30-35 | Nov 2006 | < . 008 | < .004 | < .008 | 0.003 | < . 005 | Aug 2006 | 0.002 | < . 004 | 0.001 | < . 005 |
| 35-40 | Jul 2004 | < . 008 | < .004 | < .008 | < . 002 | < . 005 | May 2004 | < .002 | < . 004 | < . 002 | < . 005 |
| 40-45 | Nov 2001 | < . 008 | < . 004 | < . 008 | 0.003 | < . 005 | Oct 2001 | 0.002 | < . 004 | 0.002 | < . 005 |
| 45-50 | Aug 1998 | < . 008 | < . 004 | < . 008 | 0.003 | < . 005 | Sep 1998 | 0.002 | < . 004 | 0.002 | < . 005 |
| Child mortality |  |  |  |  |  |  |  |  |  |  |  |
| 15-20 | Oct 2010 | 0.049 | 0.046 | 0.048 | 0.038 | 0.038 | Jan 2011 | 0.053 | 0.022 | 0.048 | 0.044 |
| 20-25 | Nov 2009 | $<.036$ | < 035 | $>.040$ | $<.017$ | < . 029 | Jan 2010 | $<.015$ | $<.021$ | < . 018 | <. 041 |
| 25-30 | Sep 2008 | < . 036 | < .035 | > .040 | < . 017 | < . 029 | Aug 2008 | < .015 | $<.021$ | < . 018 | < 041 |
| 30-35 | Dec 2006 | < . 036 | < 035 | $>.040$ | 0.019 | < . 029 | Sep 2006 | 0.018 | < . 021 | 0.018 | < . 041 |
| 35-40 | Oct 2004 | < . 036 | $<.035$ | $>.040$ | < . 017 | < . 029 | Jul 2004 | < . 015 | < . 021 | < . 018 | < . 041 |
| 40-45 | Jan 2002 | $<.036$ | < .035 | $>.040$ | 0.021 | < . 029 | Jan 2002 | 0.019 | $<.021$ | 0.021 | < . 041 |
| 45-50 | Nov 1998 | < . 036 | < . 035 | $>.040$ | 0.021 | < . 029 | Dec 1998 | 0.018 | < . 021 | 0.02 | < 041 |

[^6]Appendix 5: Number of deaths by age and sex, Tonga: 2008-2011

| Age group | Number of deaths from Ministry of Health |  |  |  |  |  |  |  |  | Number of deaths from 2011 Census <br> Dec 2010 - Nov 2011 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Dec 2007-Nov 2008 |  |  | Dec 2008 - Nov 2009 |  |  | Dec 2009 - Nov 2010 |  |  |  |  |  |
|  | Males | Females | Total | Males | Females | Total | Males | Females | Total | Males | Females | Total |
| <1 | 14 | 13 | 27 | 26 | 12 | 38 | 24 | 21 | 45 | 11 | 2 | 13 |
| 1-4 | 9 | 2 | 11 | 9 | 8 | 17 | 3 | 6 | 9 | 2 | 7 | 9 |
| 5-9 | 2 | 2 | 4 | 4 | 1 | 5 | 0 | 2 | 2 | 2 | 0 | 2 |
| 10-14 | 3 | 2 | 5 | 4 | 1 | 5 | 0 | 2 | 2 | 2 | 1 | 3 |
| 15-19 | 8 | 1 | 9 | 4 | 2 | 6 | 3 | 3 | 6 | 5 | 1 | 6 |
| $20-24$ | 4 |  | 4 | 5 | 3 | 8 | 0 | 3 | 3 | 4 | 3 | 7 |
| 25-29 | 6 | 3 | 9 | 5 | 5 | 10 | 1 | 6 | 7 | 9 | 3 | 12 |
| 30-34 | 6 | 6 | 12 | 6 | 4 | 10 | 1 | 7 | 8 | 3 | 3 | 6 |
| $35-39$ | 9 | 3 | 12 | 4 | 6 | 10 | 5 | 10 | 15 | 7 | 6 | 13 |
| 40-44 | 14 | 8 | 22 | 7 | 4 | 11 | 8 | 12 | 20 | 13 | 14 | 27 |
| 45-49 | 15 | 5 | 20 | 18 | 6 | 24 | 7 | 11 | 18 | 17 | 8 | 25 |
| 50-54 | 15 | 13 | 28 | 16 | 15 | 31 | 15 | 18 | 33 | 18 | 15 | 33 |
| $55-59$ | 24 | 19 | 43 | 20 | 13 | 33 | 18 | 23 | 41 | 24 | 19 | 43 |
| 60-64 | 21 | 22 | 43 | 26 | 21 | 47 | 26 | 22 | 48 | 24 | 12 | 36 |
| 65-69 | 25 | 19 | 44 | 28 | 27 | 55 | 29 | 34 | 63 | 40 | 18 | 58 |
| 70-74 | 40 | 16 | 56 | 35 | 31 | 66 | 16 | 34 | 50 | 45 | 23 | 68 |
| 75-79 | 31 | 15 | 46 | 39 | 29 | 68 | 19 | 40 | 59 | 38 | 25 | 63 |
| 80+ | 44 | 56 | 100 | 74 | 53 | 127 | 54 | 53 | 107 | 52 | 46 | 98 |
| NS | 18 | 7 | 25 | 0 | 0 | 0 | 6 | 11 | 17 | 2 | 1 | 3 |
| Total | 308 | 212 | 520 | 330 | 241 | 571 | 235 | 318 | 553 | 318 | 207 | 525 |

Appendix 6: Estimated number of deaths by age and sex for 2011, based on 2011 Census population and calculated $\mathbf{m}(\mathbf{x}, \mathbf{n}$ ) - values from abridged life tables for males and females, Tonga: 2011

| Age group | 2011 Census population |  |  | $\mathbf{m}(\mathbf{x}, \mathbf{n})$ |  | Number of deaths |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Male | Female | Total | Male | Female | Male | Female | Total |
| 0 | 1,444 | 1,299 | 2,743 | 0.0224 | 0.0152 | 32 | 20 | 52 |
| 1 | 5,642 | 5,115 | 10,758 | 0.0010 | 0.0005 | 6 | 3 | 8 |
| 5 | 6,672 | 6,203 | 12,875 | 0.0003 | 0.0002 | 2 | 1 | 3 |
| 10 | 6,362 | 5,725 | 12,087 | 0.0004 | 0.0003 | 2 | 1 | 4 |
| 15 | 5,676 | 5,293 | 10,969 | 0.0009 | 0.0003 | 5 | 2 | 7 |
| 20 | 4,131 | 4,099 | 8,230 | 0.0008 | 0.0005 | 3 | 2 | 5 |
| 25 | 3,576 | 4,015 | 7,591 | 0.0015 | 0.0011 | 5 | 5 | 10 |
| 30 | 3,095 | 3,317 | 6,412 | 0.0013 | 0.0016 | 4 | 5 | 9 |
| 35 | 2,784 | 2,972 | 5,756 | 0.0022 | 0.0021 | 6 | 6 | 12 |
| 40 | 2,890 | 2,864 | 5,754 | 0.0040 | 0.0036 | 11 | 10 | 22 |
| 45 | 2,368 | 2,214 | 4,583 | 0.0067 | 0.0035 | 16 | 8 | 24 |
| 50 | 1,796 | 1,921 | 3,718 | 0.0094 | 0.0083 | 17 | 16 | 33 |
| 55 | 1,522 | 1,637 | 3,159 | 0.0151 | 0.0120 | 23 | 20 | 43 |
| 60 | 1,220 | 1,308 | 2,528 | 0.0207 | 0.0151 | 25 | 20 | 45 |
| 65 | 1,010 | 1,133 | 2,143 | 0.0299 | 0.0225 | 30 | 25 | 56 |
| 70 | 836 | 889 | 1,725 | 0.0429 | 0.0309 | 36 | 27 | 63 |
| 75 | 520 | 608 | 1,128 | 0.0963 | 0.0654 | 50 | 40 | 90 |
| 80 | 434 | 659 | 1,093 | 0.2277 | 0.1726 | 99 | 114 | 213 |
| Total | 51,979 | 51,273 | 103,252 |  |  | 374 | 325 | 699 |

Appendix 7A: Population aged 15 years and older by labour market activity, sex and urban - rural residence, Tonga: 2011

| Region/Sex | Labour Force |  |  |  |  | Not in labour force |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Paid work | Subsistence work | Work unspecified | Un-employed | Total | Student | Retired, disabled, family responsibilities | Other* | Total |  |
| Total | 23,698 | 9,549 | 175 | 373 | 33,795 | 9,026 | 18,496 | 3,280 | 30,802 | 64,597 |
| Urban | 6,424 | 590 | 53 | 132 | 7,199 | 2,346 | 5,318 | 949 | 8,613 | 15,812 |
| Rural | 17,274 | 8,959 | 122 | 241 | 26,596 | 6,680 | 13,178 | 2,331 | 22,189 | 48,785 |
| Males | 13,977 | 5,612 | 106 | 192 | 19,887 | 4,403 | 2,729 | 4,718 | 11,850 | 31,737 |
| Urban | 3,862 | 384 | 25 | 73 | 4,344 | 1,152 | 835 | 1,464 | 3,451 | 7,795 |
| Rural | 10,115 | 5,228 | 81 | 119 | 15,543 | 3,251 | 3,792 | 1,356 | 8,399 | 23,942 |
| Females | 9,721 | 3,937 | 69 | 181 | 13,908 | 4,623 | 12,957 | 1,372 | 18,952 | 32,860 |
| Urban | 2,562 | 206 | 28 | 59 | 2,855 | 1,194 | 3,571 | 397 | 5,162 | 8,017 |
| Rural | 7,159 | 3,731 | 41 | 122 | 11,053 | 3,429 | 9,386 | 975 | 13,790 | 24,843 |

* "Other" includes people who did not work because:

They were not willing and available to work (234);
Of poor weather conditions or they could not afford transport (39)
They believed that no work was available $(1,901)$;
Of reasons not specified $(1,106)$.

Appendix 7B: Population aged 15 years and older by labour market activity, sex and urban - rural residence, Tonga: 2011 (according to an adjusted definition of unemployment)

|  | Labour Force |  |  |  |  | Not in labour force |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Region/Sex | Paid work | Subsistence work | Work unspecified | Un-employed* | Total | Student | Retired, disabled, family responsibilities | Other** | Total | Total |
| Total | 23,698 | 9,549 | 175 | 2,313 | 35,735 | 9,026 | 18,496 | 1,340 | 28,862 | 64,597 |
| Urban | 6,424 | 590 | 53 | 636 | 7,703 | 2,346 | 5,318 | 445 | 8,109 | 15,812 |
| Rural | 17,274 | 8,959 | 122 | 1,677 | 28,032 | 6,680 | 13,178 | 895 | 20,753 | 48,785 |
| Males | 13,977 | 5,612 | 106 | 1,356 | 21,051 | 4,403 | 5,539 | 744 | 10,686 | 31,737 |
| Urban | 3,862 | 384 | 25 | 396 | 4,667 | 1,152 | 1,747 | 229 | 3,128 | 7,795 |
| Rural | 10,115 | 5,228 | 81 | 960 | 16,384 | 3,251 | 3,792 | 515 | 7,558 | 23,942 |
| Females | 9,721 | 3,937 | 69 | 957 | 14,684 | 4,623 | 12,957 | 596 | 18,176 | 32,860 |
| Urban | 2,562 | 206 | 28 | 240 | 3,036 | 1,194 | 3,571 | 216 | 4,981 | 8,017 |
| Rural | 7,159 | 3,731 | 41 | 717 | 11,648 | 3,429 | 9,386 | 380 | 13,195 | 24,843 |

* Unemployed include people who did not work because:

They believed that no work was available $(1,901)$;
Of poor weather conditions or they could not afford transport (39).
** "Other" includes people who did not work because:
They were not willing and available to work (234);
Of reasons not specified $(1,106)$.

Appendix 8: Total fertility rate (TFR) of Australia, France, New Zealand and the United States of America, and the average TFR of these four countries: 1975-2011


Appendix 9: Projected population size according to nine projection scenarios (combination of three different fertility and migration assumptions), Tonga: 2016, 2021 and 2031

| Year 2016 |  |  |  |
| :---: | :---: | :---: | :---: |
| Fertility assumption | Migration assumption |  |  |
| (TFR from 2011 to 2031) | Zero migration | $\begin{aligned} & \text { Constant ( }-1970 \text { until 2021); } \\ & \text { Declining ( }-985 \text { by 2031) } \end{aligned}$ | Constant (-1970) |
| No decline in TFR $(3.9 \rightarrow 3.9)$ | 114.9 | 103.7 | 103.7 |
| Constant decline in TFR (based on past trends) $(3.9 \rightarrow 3.4)$ | 114.8 | 103.6 | 103.6 |
| Fast decline in TFR $(3.9 \rightarrow 2.8)$ | 114.6 | 103.6 | 103.4 |
| Year 2021 |  |  |  |
| Fertility assumption | Migration assumption |  |  |
| (TFR from 2011 to 2031) | Zero migration | $\begin{aligned} & \hline \text { Constant ( }-1970 \text { until 2021); } \\ & \text { Declining ( }-985 \text { by 2031) } \\ & \hline \end{aligned}$ | Constant (-1970) |
| No decline in TFR $(3.9 \rightarrow 3.9)$ | 128.8 | 103.8 | 103.8 |
| Constant decline in TFR (based on past trends) $(3.9 \rightarrow 3.4)$ | 128.0 | 103.3 | 103.3 |
| Fast decline in TFR $(3.9 \rightarrow 2.8)$ | 126.9 | 103.0 | 102.3 |
| Year 2031 |  |  |  |
| Fertility assumption | Migration assumption |  |  |
| (TFR from 2011 to 2031) | Zero migration | $\begin{aligned} & \text { Constant ( }-1970 \text { until } 2021) \text {; } \\ & \text { Declining ( }-985 \text { by 2031) } \\ & \hline \end{aligned}$ | Constant (-1970) |
| No decline in TFR $(3.9 \rightarrow 3.9)$ | 162.3 | 110.6 | 104.1 |
| Constant decline in TFR (based on past trends) $(3.9 \rightarrow 3.4)$ | 158.5 | 108.5 | 102.2 |
| Fast decline in TFR $(3.9 \rightarrow 2.8)$ | 152.3 | 107.4 | 97.8 |

Appendix 10: Divisions and districts summary

| Divisions | TONGATAPU | VAVA'U | HA'APAI | 'EUA | ONGO NIUA |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Districts | Kolofo'ou | Neiafu | Pangai Hp | 'Eua Motu'a | Niuatoputapu |
|  | Kolomotu'a | Pangaimotu | Foa | 'Eua Fo'ou | Niuafo'ou |
|  | Vaini | Hahake | Lulunga |  |  |
|  | Tatakamotonga | Leimatu'a | Mu'omu'a |  |  |
|  | Lapaha | Hihifo | Ha'ano |  |  |
|  | Koto | Uiha |  |  |  |

TONGA

Population trend: 1956-2011


Population pyramid by five-year age groups and sex, 2006 and 2011
2006 (shaded area), 2011 (outlined)


| TONGA |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\underline{2006}$ |  |  |  | 2011* |  |  |  |
| Age | Males | Females | Total | Age | Males | Females | Total |
| Population by 5-year age groups and sex |  |  |  |  |  |  |  |
| 0-4 | 7,186 | 6,613 | 13,799 | 0-4 | 7,086 | 6,415 | 13,501 |
| 5-9 | 6,756 | 6,063 | 12,820 | 5-9 | 6,672 | 6,203 | 12,875 |
| 10-14 | 6,423 | 5,912 | 12,335 | 10-14 | 6,362 | 5,725 | 12,087 |
| 15-19 | 5,392 | 4,900 | 10,292 | 15-19 | 5,676 | 5,293 | 10,969 |
| 20-24 | 4,656 | 4,546 | 9,202 | 20-24 | 4,131 | 4,099 | 8,230 |
| 25-29 | 3,645 | 3,668 | 7,313 | 25-29 | 3,576 | 4,015 | 7,591 |
| 30-34 | 3,151 | 3,193 | 6,345 | 30-34 | 3,095 | 3,317 | 6,412 |
| 35-39 | 3,117 | 3,119 | 6,236 | 35-39 | 2,784 | 2,972 | 5,756 |
| 40-44 | 2,582 | 2,438 | 5,020 | 40-44 | 2,890 | 2,864 | 5,754 |
| 45-49 | 1,926 | 2,060 | 3,987 | 45-49 | 2,368 | 2,214 | 4,583 |
| 50-54 | 1,637 | 1,832 | 3,469 | 50-54 | 1,796 | 1,921 | 3,718 |
| 55-59 | 1,361 | 1,491 | 2,852 | 55-59 | 1,522 | 1,637 | 3,159 |
| 60-64 | 1,171 | 1,302 | 2,473 | 60-64 | 1,220 | 1,308 | 2,528 |
| 65-69 | 1,094 | 1,083 | 2,177 | 65-69 | 1,010 | 1,133 | 2,143 |
| 70-74 | 778 | 810 | 1,588 | 70-74 | 836 | 889 | 1,725 |
| 75+ | 896 | 1,189 | 2,084 | 75+ | 954 | 1,267 | 2,221 |
| Total | 51,772 | 50,219 | 101,991 | Total | 51,979 | 51,273 | 103,252 |
| Population by broad age groups (in numbers) |  |  |  |  |  |  |  |
| 0-14 | 20,365 | 18,588 | 38,953 | 0-14 | 20,121 | 18,342 | 38,463 |
| 15-24 | 10,048 | 9,447 | 19,494 | 15-24 | 9,807 | 9,392 | 19,199 |
| 25-59 | 17,420 | 17,801 | 35,222 | 25-59 | 18,030 | 18,942 | 36,972 |
| 25-64 | 18,591 | 19,103 | 37,695 | 25-64 | 19,251 | 20,250 | 39,501 |
| 60+ | 3,939 | 4,383 | 8,322 | 60+ | 4,021 | 4,597 | 8,618 |
| 65+ | 2,768 | 3,081 | 5,849 | 65+ | 2,801 | 3,289 | 6,090 |
| Population by broad age groups (in percentages) |  |  |  |  |  |  |  |
| 0-14 | 39 | 37 | 38 | 0-14 | 39 | 36 | 37 |
| 15-24 | 19 | 19 | 19 | 15-24 | 19 | 18 | 19 |
| 25-59 | 34 | 35 | 35 | 25-59 | 35 | 37 | 36 |
| 25-64 | 36 | 38 | 37 | 25-64 | 37 | 39 | 38 |
| 60+ | 8 | 9 | 8 | 60+ | 8 | 9 | 8 |
| 65+ | 5 | 6 | 6 | 65+ | 5 | 6 | 6 |
| Age dependency ratio |  |  |  |  |  |  |  |
| 15-59 |  |  | 86 | 15-59 |  |  | 84 |
| 15-64 |  |  | 78 | 15-64 |  |  | 76 |
| Sex ratio (males per 100 females) |  |  |  |  |  |  |  |
|  |  |  | 103 |  |  |  | 101 |
| Median age (years) |  |  |  |  |  |  |  |
| Total | 20.1 | 21.8 | 21.0 | Total | 20.2 | 22.4 | 21.3 |
| Population growth 2006-2011 |  |  |  |  |  |  |  |
|  |  |  |  |  | Males | Females | Total |
| Total |  |  |  |  | 207 | 1,054 | 1,261 |
| Average annual |  |  |  |  | 21 | 105 | 252 |
| Percentage difference \% |  |  |  |  | 0.4 | 2.1 | 1.2 |
| Average annual growth rate |  |  |  |  | 0.0 | 0.2 | 0.2 |

[^7]TONGATAPU

Population trend: 1956-2011


Population pyramid by five-year age groups and sex, 2006 and 2011
2006 (shaded area), 2011 (outlined)


| TONGATAPU |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\underline{2006}$ |  |  |  | 2011* |  |  |  |
| Age | Males | Females | Total | Age | Males | Females | Total |
| Population by 5-year age groups and sex |  |  |  |  |  |  |  |
| 0-4 | 5,042 | 4,753 | 9,795 | 0-4 | 5,254 | 4,729 | 9,983 |
| 5-9 | 4,647 | 4,211 | 8,858 | 5-9 | 4,697 | 4,478 | 9,175 |
| 10-14 | 4,426 | 4,107 | 8,534 | 10-14 | 4,556 | 4,104 | 8,660 |
| 15-19 | 3,777 | 3,446 | 7,223 | 15-19 | 4,191 | 3,930 | 8,121 |
| 20-24 | 3,543 | 3,465 | 7,008 | 20-24 | 3,235 | 3,154 | 6,389 |
| 25-29 | 2,725 | 2,765 | 5,490 | 25-29 | 2,762 | 3,080 | 5,842 |
| 30-34 | 2,303 | 2,297 | 4,601 | 30-34 | 2,302 | 2,488 | 4,790 |
| 35-39 | 2,182 | 2,230 | 4,412 | 35-39 | 2,042 | 2,210 | 4,252 |
| 40-44 | 1,818 | 1,696 | 3,514 | 40-44 | 2,056 | 2,080 | 4,136 |
| 45-49 | 1,316 | 1,430 | 2,746 | 45-49 | 1,722 | 1,594 | 3,317 |
| 50-54 | 1,112 | 1,265 | 2,377 | 50-54 | 1,274 | 1,366 | 2,641 |
| 55-59 | 905 | 987 | 1,891 | 55-59 | 1,065 | 1,143 | 2,208 |
| 60-64 | 768 | 914 | 1,682 | 60-64 | 805 | 915 | 1,720 |
| 65-69 | 713 | 740 | 1,454 | 65-69 | 685 | 819 | 1,504 |
| 70-74 | 500 | 564 | 1,064 | 70-74 | 552 | 615 | 1,167 |
| 75+ | 593 | 803 | 1,397 | 75+ | 634 | 877 | 1,511 |
| Total | 36,372 | 35,673 | 72,045 | Total | 37,833 | 37,583 | 75,416 |
| Population by broad age groups (in numbers) |  |  |  |  |  |  |  |
| 0-14 | 14,115 | 13,071 | 27,187 | 0-14 | 14,508 | 13,310 | 27,818 |
| 15-24 | 7,320 | 6,911 | 14,231 | 15-24 | 7,426 | 7,084 | 14,510 |
| 25-59 | 12,362 | 12,669 | 25,031 | 25-59 | 13,222 | 13,963 | 27,185 |
| 25-64 | 13,131 | 13,583 | 26,713 | 25-64 | 14,028 | 14,878 | 28,906 |
| 60+ | 2,575 | 3,022 | 5,597 | 60+ | 2,677 | 3,226 | 5,903 |
| 65+ | 1,806 | 2,108 | 3,915 | 65+ | 1,871 | 2,311 | 4,183 |
| Population by broad age groups (in percentages) |  |  |  |  |  |  |  |
| 0-14 | 39 | 37 | 38 | 0-14 | 38 | 35 | 37 |
| 15-24 | 20 | 19 | 20 | 15-24 | 20 | 19 | 19 |
| 25-59 | 34 | 36 | 35 | 25-59 | 35 | 37 | 36 |
| 25-64 | 36 | 38 | 37 | 25-64 | 37 | 40 | 38 |
| 60+ | 7 | 8 | 8 | 60+ | 7 | 9 | 8 |
| 65+ | 5 | 6 | 5 | 65+ | 5 | 6 | 6 |
| Age dependency ratio |  |  |  |  |  |  |  |
| 15-59 |  |  | 83 | 15-59 |  |  | 81 |
| 15-64 |  |  | 76 | 15-64 |  |  | 74 |
| Sex ratio (males per 100 females) |  |  |  |  |  |  |  |
|  |  |  | 102 |  |  |  | 101 |
| Median age (years) |  |  |  |  |  |  |  |
| Total | 20.4 | 21.9 | 21.2 | Total | 20.3 | 22.5 | 21.4 |
| Population growth 2006-2011 |  |  |  |  |  |  |  |
|  |  |  |  |  | Males | Females | Total |
| Total |  |  |  |  | 1,461 | 1,910 | 3,371 |
| Average annual |  |  |  |  | 292 | 382 | 674 |
| Percentage difference \% |  |  |  |  | 4.0 | 5.4 | 4.7 |
| Average annual growth rate |  |  |  |  | 0.4 | 0.5 | 0.9 |

* 15 persons with age-not stated were distributed proportionally by known ages in 2011 . This may cause some basic
tables to differ slightly from numbers shown here.

VAVA'U

Population trend: 1956-2011


Population pyramid by five-year age groups and sex, 2006 and 2011
2006 (shaded area), 2011 (outlined)


| VAVA'U |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2006 |  |  |  | 2011 |  |  |  |
| Age | Males | Females | Total | Age | Males | Females | Total |
| Population by 5-year age groups and sex |  |  |  |  |  |  |  |
| 0-4 | 1,144 | 964 | 2,108 | 0-4 | 999 | 907 | 1,906 |
| 5-9 | 1,095 | 959 | 2,054 | 5-9 | 1,088 | 906 | 1,994 |
| 10-14 | 1,028 | 971 | 1,999 | 10-14 | 991 | 878 | 1,869 |
| 15-19 | 794 | 766 | 1,559 | 15-19 | 777 | 786 | 1,563 |
| 20-24 | 550 | 569 | 1,119 | 20-24 | 467 | 505 | 972 |
| 25-29 | 450 | 446 | 897 | 25-29 | 444 | 493 | 937 |
| 30-34 | 446 | 470 | 917 | 30-34 | 384 | 423 | 807 |
| 35-39 | 483 | 466 | 950 | 35-39 | 396 | 420 | 816 |
| 40-44 | 389 | 390 | 780 | 40-44 | 443 | 426 | 869 |
| 45-49 | 310 | 317 | 627 | 45-49 | 342 | 326 | 668 |
| 50-54 | 273 | 298 | 571 | 50-54 | 274 | 285 | 559 |
| 55-59 | 239 | 259 | 498 | 55-59 | 234 | 245 | 479 |
| 60-64 | 194 | 203 | 397 | 60-64 | 222 | 224 | 446 |
| 65-69 | 179 | 176 | 355 | 65-69 | 173 | 163 | 336 |
| 70-74 | 158 | 142 | 300 | 70-74 | 135 | 152 | 287 |
| 75+ | 164 | 210 | 374 | 75+ | 190 | 224 | 414 |
| Total | 7,897 | 7,608 | 15,505 | Total | 7,559 | 7,363 | 14,922 |
| Population by broad age groups (in numbers) |  |  |  |  |  |  |  |
| 0-14 | 3,266 | 2,894 | 6,160 | 0-14 | 3,078 | 2,691 | 5,769 |
| 15-24 | 1,344 | 1,334 | 2,678 | 15-24 | 1,244 | 1,291 | 2,535 |
| 25-59 | 2,592 | 2,648 | 5,240 | 25-59 | 2,517 | 2,618 | 5,135 |
| 25-64 | 2,786 | 2,852 | 5,637 | 25-64 | 2,739 | 2,842 | 5,581 |
| 60+ | 695 | 732 | 1,427 | 60+ | 720 | 763 | 1,483 |
| 65+ | 501 | 528 | 1,030 | 65+ | 498 | 539 | 1,037 |
| Population by broad age groups (in percentages) |  |  |  |  |  |  |  |
| 0-14 | 41 | 38 | 40 | 0-14 | 41 | 37 | 39 |
| 15-24 | 17 | 18 | 17 | 15-24 | 16 | 18 | 17 |
| 25-59 | 33 | 35 | 34 | 25-59 | 33 | 36 | 34 |
| 25-64 | 35 | 37 | 36 | 25-64 | 36 | 39 | 37 |
| 60+ | 9 | 10 | 9 | 60+ | 10 | 10 | 10 |
| 65+ | 6 | 7 | 7 | 65+ | 7 | 7 | 7 |
| Age dependency ratio |  |  |  |  |  |  |  |
| 15-59 |  |  | 96 | 15-59 |  |  | 95 |
| 15-64 |  |  | 86 | 15-64 |  |  | 84 |
| Sex ratio (males per 100 females) |  |  |  |  |  |  |  |
|  |  |  | 104 |  |  |  | 103 |
| Median age (years) |  |  |  |  |  |  |  |
| Total | 19.3 | 21.3 | 20.2 | Total | 19.5 | 22.0 | 20.7 |
| Population growth 2006-2011 |  |  |  |  |  |  |  |
|  |  |  |  |  | Males | Females | Total |
| Total |  |  |  |  | -338 | -245 | -583 |
| Average ann |  |  |  |  | -68 | -49 | -117 |
| Percentage | ence \% |  |  |  | -4.3 | -3.2 | -3.8 |
| Average ann | rowth r |  |  |  | -0.9 | -0.7 | -0.8 |

## HA'APAI

Population trend: 2006-2011


Population pyramid by five-year age groups and sex, 2006 and 2011
2006 (shaded area), 2011 (outlined)


| HA'APAI |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2006 |  |  |  | 2011 |  |  |  |
| Age | Males | Females | Total | Age | Males | Females | Total |
| Population by 5-year age groups and sex |  |  |  |  |  |  |  |
| 0-4 | 517 | 442 | 959 | 0-4 | 440 | 391 | 831 |
| 5-9 | 519 | 459 | 978 | 5-9 | 474 | 391 | 865 |
| 10-14 | 492 | 445 | 937 | 10-14 | 405 | 385 | 790 |
| 15-19 | 466 | 337 | 803 | 15-19 | 359 | 298 | 657 |
| 20-24 | 307 | 285 | 592 | 20-24 | 225 | 225 | 450 |
| 25-29 | 248 | 242 | 490 | 25-29 | 197 | 223 | 420 |
| 30-34 | 219 | 243 | 463 | 30-34 | 219 | 203 | 422 |
| 35-39 | 228 | 203 | 432 | 35-39 | 192 | 182 | 374 |
| 40-44 | 179 | 184 | 364 | 40-44 | 193 | 177 | 370 |
| 45-49 | 148 | 163 | 312 | 45-49 | 146 | 137 | 283 |
| 50-54 | 131 | 145 | 277 | 50-54 | 126 | 137 | 263 |
| 55-59 | 97 | 139 | 236 | 55-59 | 110 | 131 | 241 |
| 60-64 | 109 | 105 | 214 | 60-64 | 90 | 94 | 184 |
| 65-69 | 102 | 101 | 203 | 65-69 | 83 | 83 | 166 |
| 70-74 | 76 | 58 | 134 | 70-74 | 82 | 64 | 146 |
| 75+ | 71 | 106 | 177 | 75+ | 65 | 89 | 154 |
| Total | 3,911 | 3,659 | 7,570 | Total | 3,406 | 3,210 | 6,616 |
| Population by broad age groups (in numbers) |  |  |  |  |  |  |  |
| 0-14 | 1,528 | 1,345 | 2,873 | 0-14 | 1,319 | 1,167 | 2,486 |
| 15-24 | 773 | 622 | 1,395 | 15-24 | 584 | 523 | 1,107 |
| 25-59 | 1,252 | 1,321 | 2,573 | 25-59 | 1,183 | 1,190 | 2,373 |
| 25-64 | 1,361 | 1,426 | 2,787 | 25-64 | 1,273 | 1,284 | 2,557 |
| 60+ | 359 | 371 | 729 | 60+ | 320 | 330 | 650 |
| $65+$ | 250 | 265 | 515 | 65+ | 230 | 236 | 466 |
| Population by broad age groups (in percentages) |  |  |  |  |  |  |  |
| 0-14 | 39 | 37 | 38 | 0-14 | 39 | 36 | 38 |
| 15-24 | 20 | 17 | 18 | 15-24 | 17 | 16 | 17 |
| 25-59 | 32 | 36 | 34 | 25-59 | 35 | 37 | 36 |
| 25-64 | 35 | 39 | 37 | 25-64 | 37 | 40 | 39 |
| 60+ | 9 | 10 | 10 | 60+ | 9 | 10 | 10 |
| 65+ | 6 | 7 | 7 | 65+ | 7 | 7 | 7 |
| Age dependency ratio |  |  |  |  |  |  |  |
| 15-59 |  |  | 91 | 15-59 |  |  | 90 |
| 15-64 |  |  | 81 | 15-64 |  |  | 81 |
| Sex ratio (males per 100 females) |  |  |  |  |  |  |  |
|  |  |  | 107 |  |  |  | 106 |
| Median age (years) |  |  |  |  |  |  |  |
| Total | 19.6 | 22.6 | 20.9 | Total | 20.6 | 23.1 | 21.8 |
| Population growth 2006-2011 |  |  |  |  |  |  |  |
|  |  |  |  |  | Males | Females | Total |
| Total |  |  |  |  | -505 | -449 | -954 |
| Average an |  |  |  |  | -101 | -90 | -191 |
| Percentage | ence \% |  |  |  | -12.9 | -12.3 | -12.6 |
| Average an | rowth rate |  |  |  | -2.8 | -2.6 | -2.7 |

${ }^{\prime}$ EUA

Population trend: 2006-2011


Population pyramid by five-year age groups and sex, 2006 and 2011


| 'EUA |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2006 |  |  |  | 2011 |  |  |  |
| Age | Males | Females | Total | Age | Males | Females | Total |
| Population by 5-year age groups and sex |  |  |  |  |  |  |  |
| 0-4 | 395 | 363 | 758 | 0-4 | 329 | 321 | 650 |
| 5-9 | 381 | 333 | 714 | 5-9 | 330 | 358 | 688 |
| 10-14 | 333 | 288 | 622 | 10-14 | 325 | 287 | 612 |
| 15-19 | 276 | 270 | 547 | 15-19 | 272 | 233 | 505 |
| 20-24 | 200 | 179 | 379 | 20-24 | 173 | 171 | 344 |
| 25-29 | 168 | 163 | 331 | 25-29 | 140 | 183 | 323 |
| 30-34 | 142 | 135 | 277 | 30-34 | 155 | 166 | 321 |
| 35-39 | 170 | 173 | 343 | 35-39 | 125 | 124 | 249 |
| 40-44 | 138 | 127 | 265 | 40-44 | 160 | 143 | 303 |
| 45-49 | 110 | 116 | 226 | 45-49 | 118 | 114 | 232 |
| 50-54 | 91 | 88 | 179 | 50-54 | 87 | 105 | 192 |
| 55-59 | 85 | 85 | 170 | 55-59 | 89 | 82 | 171 |
| 60-64 | 65 | 57 | 122 | 60-64 | 72 | 63 | 135 |
| 65-69 | 66 | 42 | 108 | 65-69 | 45 | 50 | 95 |
| 70-74 | 30 | 30 | 60 | 70-74 | 47 | 41 | 88 |
| 75+ | 50 | 54 | 104 | 75+ | 47 | 61 | 108 |
| Total | 2,702 | 2,504 | 5,206 | Total | 2,514 | 2,502 | 5,016 |
| Population by broad age groups (in numbers) |  |  |  |  |  |  |  |
| 0-14 | 1,109 | 984 | 2,093 | 0-14 | 984 | 966 | 1,950 |
| 15-24 | 477 | 449 | 926 | 15-24 | 445 | 404 | 849 |
| 25-59 | 905 | 887 | 1,793 | 25-59 | 874 | 917 | 1,791 |
| 25-64 | 970 | 944 | 1,915 | 25-64 | 946 | 980 | 1,926 |
| 60+ | 211 | 183 | 394 | 60+ | 211 | 215 | 426 |
| 65+ | 146 | 126 | 272 | 65+ | 139 | 152 | 291 |
| Population by broad age groups (in percentages) |  |  |  |  |  |  |  |
| 0-14 | 41 | 39 | 40 | 0-14 | 39 | 39 | 39 |
| 15-24 | 18 | 18 | 18 | 15-24 | 18 | 16 | 17 |
| 25-59 | 34 | 35 | 34 | 25-59 | 35 | 37 | 36 |
| 25-64 | 36 | 38 | 37 | 25-64 | 38 | 39 | 38 |
| 60+ | 8 | 7 | 8 | 60+ | 8 | 9 | 8 |
|  | 5 |  | 5 | 65+ | 6 | 6 | 6 |
| Age dependency ratio |  |  |  |  |  |  |  |
| 15-59 |  |  | 91 | 15-59 |  |  | 90 |
| 15-64 |  |  | 83 | 15-64 |  |  | 81 |
| Sex ratio (males per 100 females) |  |  |  |  |  |  |  |
|  |  |  | 108 |  |  |  | 100 |
| Median age (years) |  |  |  |  |  |  |  |
| Total | 19.4 | 20.0 | 19.7 | Total | 20.0 | 21.5 | 20.8 |
| Population growth 2006-2011 |  |  |  |  |  |  |  |
|  |  |  |  |  | Males | Females | Total |
| Total |  |  |  |  | -188 | -2 | -190 |
| Average ann |  |  |  |  | -38 | 0 | -38 |
| Percentage | nce \% |  |  |  | -7.0 | -0.1 | -3.6 |
| Average ann | owth r |  |  |  | -1.4 | 0.0 | -0.7 |

## ONGO NIUA

Population trend: 2006-2011


Population pyramid by five-year age group and sex, 2006 and 2011
2006 (shaded area), 2011 (outlined)


| ONGO NIUA |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2006 |  |  |  | 2011 |  |  |  |
| Age | Males | Females | Total | Age | Males | Females | Total |
| Population by 5-year age groups and sex |  |  |  |  |  |  |  |
| 0-4 | 88 | 91 | 179 | 0-4 | 64 | 67 | 131 |
| 5-9 | 115 | 101 | 216 | 5-9 | 83 | 70 | 153 |
| 10-14 | 143 | 101 | 244 | 10-14 | 85 | 71 | 156 |
| 15-19 | 79 | 82 | 161 | 15-19 | 77 | 46 | 123 |
| 20-24 | 56 | 48 | 104 | 20-24 | 31 | 44 | 75 |
| 25-29 | 54 | 51 | 105 | 25-29 | 33 | 36 | 69 |
| 30-34 | 40 | 47 | 87 | 30-34 | 35 | 37 | 72 |
| 35-39 | 53 | 46 | 99 | 35-39 | 29 | 36 | 65 |
| 40-44 | 57 | 40 | 97 | 40-44 | 38 | 38 | 76 |
| 45-49 | 41 | 34 | 75 | 45-49 | 40 | 43 | 83 |
| 50-54 | 29 | 36 | 65 | 50-54 | 35 | 28 | 63 |
| 55-59 | 35 | 21 | 56 | 55-59 | 24 | 36 | 60 |
| 60-64 | 34 | 23 | 57 | 60-64 | 31 | 12 | 43 |
| 65-69 | 33 | 23 | 56 | 65-69 | 24 | 18 | 42 |
| 70-74 | 14 | 15 | 29 | 70-74 | 20 | 17 | 37 |
| 75+ | 17 | 15 | 32 | 75+ | 18 | 16 | 34 |
| Total | 890 | 775 | 1,665 | Total | 667 | 615 | 1,282 |
| Population by broad age groups (in numbers) |  |  |  |  |  |  |  |
| 0-14 | 347 | 293 | 640 | 0-14 | 232 | 208 | 440 |
| 15-24 | 135 | 130 | 265 | 15-24 | 108 | 90 | 198 |
| 25-59 | 310 | 275 | 585 | 25-59 | 234 | 254 | 488 |
| 25-64 | 344 | 298 | 642 | 25-64 | 265 | 266 | 531 |
| 60+ | 98 | 76 | 174 | 60+ | 93 | 63 | 156 |
| 65+ | 64 | 53 | 117 | 65+ | 62 | 51 | 113 |
| Population by broad age groups (in percentages) |  |  |  |  |  |  |  |
| 0-14 | 39 | 38 | 38 | 0-14 | 35 | 34 | 34 |
| 15-24 | 15 | 17 | 16 | 15-24 | 16 | 15 | 15 |
| 25-59 | 35 | 36 | 35 | 25-59 | 35 | 41 | 38 |
| 25-64 | 39 | 39 | 39 | 25-64 | 40 | 43 | 41 |
| 60+ | 11 | 10 | 10 | 60+ | 14 | 10 | 12 |
| 65+ | 7 | 7 | 7 | 65+ | 9 | 8 | 9 |
| Age dependency ratio |  |  |  |  |  |  |  |
| 15-59 |  |  | 96 | 15-59 |  |  | 87 |
| 15-64 |  |  | 83 | 15-64 |  |  | 76 |
| Sex ratio (males per 100 females) |  |  |  |  |  |  |  |
|  |  |  | 115 |  |  |  | 108 |
| Median age (years) |  |  |  |  |  |  |  |
| Total | 21.7 | 21.3 | 21.5 | Total | 24.0 | 26.4 | 25.3 |
| Population growth 2006-2011 |  |  |  |  |  |  |  |
|  |  |  |  |  | Males | Females | Total |
| Total |  |  |  |  | -223 | -160 | -383 |
| Average ann |  |  |  |  | -45 | -32 | -77 |
| Percentage | ence \% |  |  |  | -25.1 | -20.6 | -23.0 |
| Average ann | rowth r |  |  |  | -5.8 | -4.6 | -5.2 |

Kolofo'ou

Population trend: 1956-2011


Population pyramid by five-year age group and sex, 2006 and 2011
2006 (shaded area), 2011 (outlined)


| Kolofo'ou |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2006 |  |  |  | 2011 |  |  |  |
| Age | Males | Females | Total | Age | Males | Females | Total |
| Population by 5-year age groups and sex |  |  |  |  |  |  |  |
| 0-4 | 1,214 | 1,201 | 2,415 | 0-4 | 1,246 | 1,138 | 2,385 |
| 5-9 | 1,140 | 1,031 | 2,171 | 5-9 | 1,079 | 1,099 | 2,179 |
| 10-14 | 1,046 | 1,022 | 2,068 | 10-14 | 1,103 | 1,014 | 2,118 |
| 15-19 | 924 | 919 | 1,843 | 15-19 | 1,023 | 986 | 2,010 |
| 20-24 | 999 | 924 | 1,923 | 20-24 | 879 | 835 | 1,715 |
| 25-29 | 727 | 736 | 1,463 | 25-29 | 780 | 804 | 1,585 |
| 30-34 | 640 | 618 | 1,259 | 30-34 | 602 | 630 | 1,232 |
| 35-39 | 557 | 571 | 1,129 | 35-39 | 532 | 554 | 1,086 |
| 40-44 | 517 | 460 | 978 | 40-44 | 520 | 516 | 1,036 |
| 45-49 | 358 | 396 | 754 | 45-49 | 486 | 431 | 917 |
| 50-54 | 313 | 324 | 637 | 50-54 | 340 | 365 | 705 |
| 55-59 | 243 | 227 | 470 | 55-59 | 280 | 265 | 545 |
| 60-64 | 196 | 231 | 427 | 60-64 | 208 | 215 | 423 |
| 65-69 | 159 | 198 | 357 | 65-69 | 174 | 201 | 375 |
| 70-74 | 115 | 125 | 240 | 70-74 | 121 | 164 | 285 |
| 75+ | 124 | 204 | 328 | 75+ | 150 | 211 | 361 |
| Total | 9,273 | 9,190 | 18,463 | Total | 9,526 | 9,431 | 18,957 |
| Population by broad age groups (in numbers) |  |  |  |  |  |  |  |
| 0-14 | 3,400 | 3,255 | 6,655 | 0-14 | 3,429 | 3,252 | 6,681 |
| 15-24 | 1,922 | 1,844 | 3,766 | 15-24 | 1,903 | 1,822 | 3,724 |
| 25-59 | 3,357 | 3,333 | 6,690 | 25-59 | 3,541 | 3,566 | 7,107 |
| 25-64 | 3,553 | 3,564 | 7,117 | 25-64 | 3,749 | 3,781 | 7,530 |
| 60+ | 594 | 758 | 1,353 | 60+ | 653 | 791 | 1,444 |
| 65+ | 398 | 527 | 925 | 65+ | 445 | 576 | 1,021 |
| Population by broad age groups (in percentages) |  |  |  |  |  |  |  |
| 0-14 | 37 | 35 | 36 | 0-14 | 36 | 34 | 35 |
| 15-24 | 21 | 20 | 20 | 15-24 | 20 | 19 | 20 |
| 25-59 | 36 | 36 | 36 | 25-59 | 37 | 38 | 37 |
| 25-64 | 38 | 39 | 39 | 25-64 | 39 | 40 | 40 |
| 60+ | 6 | 8 | 7 | 60+ | 7 | 8 | 8 |
| 65+ | 4 | 6 | 5 | 65+ | 5 | 6 | 5 |
| Age dependency ratio |  |  |  |  |  |  |  |
| 15-59 |  |  | 77 | 15-59 |  |  | 75 |
| 15-64 |  |  | 70 | 15-64 |  |  | 68 |
| Sex ratio (males per 100 females) |  |  |  |  |  |  |  |
|  |  |  | 101 |  |  |  | 101 |
| Median age (years) |  |  |  |  |  |  |  |
| Total | 21.6 | 22.3 | 21.9 | Total | 21.8 | 22.9 | 22.3 |
| Population growth 2006-2011 |  |  |  |  |  |  |  |
|  |  |  |  |  | Males | Females | Total |
| Total |  |  |  |  | 253 | 241 | 494 |
| Average an |  |  |  |  | 51 | 48 | 99 |
| Percentage | rence \% |  |  |  | 2.7 | 2.6 | 2.7 |
| Average an | growth r |  |  |  | 0.5 | 0.5 | 0.5 |

* 6 persons with age-not stated were distributed proportionally by known ages in 2011. This may cause some basic tables to differ slightly from numbers shown here.

Kolomotu'a

Population trend: 1956-2011


Population pyramid by five-year age group and sex, 1996 and 2006 2006 (shaded area), 2011 (outlined)


| Kolomotu'a |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2006 |  |  |  | 2011 |  |  |  |
| Age | Males | Females | Total | Age | Males | Females | Total |
| Population by 5-year age groups and sex |  |  |  |  |  |  |  |
| 0-4 | 1,062 | 992 | 2,054 | 0-4 | 1,151 | 1,007 | 2,158 |
| 5-9 | 973 | 908 | 1,881 | 5-9 | 1,012 | 968 | 1,980 |
| 10-14 | 983 | 883 | 1,866 | 10-14 | 998 | 892 | 1,890 |
| 15-19 | 797 | 797 | 1,594 | 15-19 | 959 | 865 | 1,824 |
| 20-24 | 778 | 785 | 1,563 | 20-24 | 780 | 730 | 1,510 |
| 25-29 | 610 | 669 | 1,279 | 25-29 | 659 | 721 | 1,380 |
| 30-34 | 498 | 491 | 989 | 30-34 | 552 | 601 | 1,153 |
| 35-39 | 487 | 499 | 986 | 35-39 | 459 | 507 | 966 |
| 40-44 | 382 | 386 | 768 | 40-44 | 457 | 475 | 932 |
| 45-49 | 307 | 340 | 647 | 45-49 | 390 | 380 | 770 |
| 50-54 | 247 | 295 | 542 | 50-54 | 304 | 345 | 649 |
| 55-59 | 218 | 239 | 457 | 55-59 | 248 | 275 | 523 |
| 60-64 | 172 | 197 | 370 | 60-64 | 186 | 222 | 408 |
| 65-69 | 140 | 155 | 296 | 65-69 | 160 | 187 | 347 |
| 70-74 | 99 | 143 | 242 | 70-74 | 118 | 139 | 257 |
| 75+ | 141 | 173 | 315 | 75+ | 140 | 200 | 340 |
| Total | 7,894 | 7,954 | 15,848 | Total | 8,574 | 8,514 | 17,088 |
| Population by broad age groups (in numbers) |  |  |  |  |  |  |  |
| 0-14 | 3,017 | 2,784 | 5,801 | 0-14 | 3,160 | 2,867 | 6,027 |
| 15-24 | 1,575 | 1,582 | 3,157 | 15-24 | 1,738 | 1,595 | 3,333 |
| 25-59 | 2,748 | 2,919 | 5,667 | 25-59 | 3,071 | 3,304 | 6,375 |
| 25-64 | 2,921 | 3,116 | 6,037 | 25-64 | 3,257 | 3,526 | 6,783 |
| 60+ | 553 | 669 | 1,222 | 60+ | 604 | 748 | 1,352 |
| 65+ | 381 | 472 | 853 | 65+ | 418 | 526 | 944 |
| Population by broad age groups (in percentages) |  |  |  |  |  |  |  |
| 0-14 | 38 | 35 | 37 | 0-14 | 37 | 34 | 35 |
| 15-24 | 20 | 20 | 20 | 15-24 | 20 | 19 | 20 |
| 25-59 | 35 | 37 | 36 | 25-59 | 36 | 39 | 37 |
| 25-64 | 37 | 39 | 38 | 25-64 | 38 | 41 | 40 |
| 60+ | 7 | 8 | 8 | 60+ | 7 | 9 | 8 |
| 65+ | 5 | 6 | 5 | 65+ | 5 | 6 | 6 |
| Age dependency ratio |  |  |  |  |  |  |  |
| 15-59 |  |  | 80 | 15-59 |  |  | 76 |
| 15-64 |  |  | 72 | 15-64 |  |  | 69 |
| Sex ratio (males per 100 females) |  |  |  |  |  |  |  |
|  |  |  | 99 |  |  |  | 101 |
| Median age (years) |  |  |  |  |  |  |  |
| Total | 20.9 | 22.5 | 21.7 | Total | 21.1 | 23.6 | 22.3 |
| Population growth 2006-2011 |  |  |  |  |  |  |  |
|  |  |  |  |  | Males | Females | Total |
| Total |  |  |  |  | 680 | 560 | 1,240 |
| Average annual |  |  |  |  | 136 | 112 | 248 |
| Percentage difference \% |  |  |  |  | 8.6 | 7.0 | 7.8 |
| Average annual growth rate |  |  |  |  | 1.7 | 1.4 | 1.5 |

* 6 persons with age-not stated were distributed proportionally by known ages in 2011. This may cause some basic tables to differ slightly from numbers shown here.


## Vaini

Population trend: 1956-2011


Population pyramid by five-year age group and sex, 2006 and 2011
2006 (shaded area), 2011 (outlined)


| Vaini |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2006 |  |  |  | 2011 |  |  |  |
| Age | Males | Females | Total | Age | Males | Females | Total |
| Population by 5-year age groups and sex |  |  |  |  |  |  |  |
| 0-4 | 922 | 824 | 1,746 | 0-4 | 902 | 819 | 1,721 |
| 5-9 | 872 | 792 | 1,664 | 5-9 | 839 | 802 | 1,641 |
| 10-14 | 815 | 757 | 1,572 | 10-14 | 831 | 747 | 1,578 |
| 15-19 | 696 | 572 | 1,268 | 15-19 | 745 | 700 | 1,445 |
| 20-24 | 589 | 585 | 1,175 | 20-24 | 530 | 505 | 1,035 |
| 25-29 | 448 | 449 | 897 | 25-29 | 447 | 522 | 969 |
| 30-34 | 394 | 426 | 820 | 30-34 | 396 | 410 | 806 |
| 35-39 | 374 | 395 | 769 | 35-39 | 388 | 388 | 776 |
| 40-44 | 283 | 267 | 550 | 40-44 | 359 | 365 | 724 |
| 45-49 | 235 | 222 | 457 | 45-49 | 265 | 236 | 501 |
| 50-54 | 198 | 200 | 398 | 50-54 | 223 | 216 | 439 |
| 55-59 | 129 | 181 | 310 | 55-59 | 171 | 186 | 357 |
| 60-64 | 118 | 153 | 271 | 60-64 | 117 | 159 | 276 |
| 65-69 | 123 | 131 | 254 | 65-69 | 99 | 135 | 234 |
| 70-74 | 83 | 97 | 180 | 70-74 | 84 | 98 | 182 |
| 75+ | 117 | 145 | 262 | 75+ | 104 | 161 | 265 |
| Total | 6,397 | 6,197 | 12,594 | Total | 6,500 | 6,449 | 12,949 |
| Population by broad age groups (in numbers) |  |  |  |  |  |  |  |
| 0-14 | 2,608 | 2,373 | 4,981 | 0-14 | 2,572 | 2,368 | 4,940 |
| 15-24 | 1,285 | 1,157 | 2,442 | 15-24 | 1,275 | 1,205 | 2,480 |
| 25-59 | 2,063 | 2,140 | 4,203 | 25-59 | 2,249 | 2,323 | 4,572 |
| 25-64 | 2,181 | 2,293 | 4,474 | 25-64 | 2,366 | 2,482 | 4,848 |
| 60+ | 441 | 526 | 967 | 60+ | 404 | 553 | 957 |
| 65+ | 323 | 373 | 696 | 65+ | 287 | 394 | 681 |
| Population by broad age groups (in percentages) |  |  |  |  |  |  |  |
| 0-14 | 41 | 38 | 40 | 0-14 | 40 | 37 | 38 |
| 15-24 | 20 | 19 | 19 | 15-24 | 20 | 19 | 19 |
| 25-59 | 32 | 35 | 33 | 25-59 | 35 | 36 | 35 |
| 25-64 | 34 | 37 | 36 | 25-64 | 36 | 38 | 37 |
| 60+ | 7 | 8 | 8 | 60+ | 6 | 9 | 7 |
| 65+ | 5 | 6 | 6 | 65+ | 4 | 6 | 5 |
| Age dependency ratio |  |  |  |  |  |  |  |
| 15-59 |  |  | 90 | 15-59 |  |  | 84 |
| 15-64 |  |  | 82 | 15-64 |  |  | 77 |
| Sex ratio (males per 100 females) |  |  |  |  |  |  |  |
|  |  |  | 103 |  |  |  | 101 |
| Median age (years) |  |  |  |  |  |  |  |
| Total | 19.2 | 21.3 | 20.2 | Total | 19.6 | 21.6 | 20.4 |
| Population growth 2006-2011 |  |  |  |  |  |  |  |
|  |  |  |  |  | Males | Females | Total |
| Total |  |  |  |  | 103 | 252 | 355 |
| Average ann |  |  |  |  | 21 | 50 | 71 |
| Percentage | nce \% |  |  |  | 1.6 | 4.1 | 2.8 |
| Average ann | wth rate |  |  |  | 0.3 | 0.8 | 0.6 |

Tatakamotonga

Population trend: 2006-2011


Population pyramid by five-year age group and sex, 2006 and 2011
2006 (shaded area), 2011 (outlined)


| Tatakamotonga |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2006 |  |  |  | 2011 |  |  |  |
| Age | Males | Females | Total | Age | Males | Females | Total |
| Population by 5-year age groups and sex |  |  |  |  |  |  |  |
| 0-4 | 490 | 473 | 963 | 0-4 | 536 | 490 | 1,026 |
| 5-9 | 472 | 409 | 881 | 5-9 | 442 | 440 | 882 |
| 10-14 | 459 | 379 | 838 | 10-14 | 463 | 395 | 858 |
| 15-19 | 367 | 310 | 677 | 15-19 | 419 | 355 | 774 |
| 20-24 | 386 | 327 | 713 | 20-24 | 329 | 288 | 617 |
| 25-29 | 285 | 248 | 533 | 25-29 | 249 | 282 | 531 |
| 30-34 | 207 | 178 | 385 | 30-34 | 201 | 220 | 421 |
| 35-39 | 197 | 201 | 398 | 35-39 | 172 | 195 | 367 |
| 40-44 | 179 | 149 | 328 | 40-44 | 188 | 185 | 373 |
| 45-49 | 110 | 136 | 247 | 45-49 | 173 | 150 | 323 |
| 50-54 | 105 | 133 | 239 | 50-54 | 109 | 136 | 245 |
| 55-59 | 96 | 114 | 210 | 55-59 | 113 | 116 | 229 |
| 60-64 | 70 | 77 | 147 | 60-64 | 80 | 98 | 178 |
| 65-69 | 84 | 71 | 155 | 65-69 | 52 | 68 | 120 |
| 70-74 | 56 | 62 | 118 | 70-74 | 65 | 59 | 124 |
| 75+ | 53 | 82 | 135 | 75+ | 66 | 99 | 165 |
| Total | 3,618 | 3,351 | 6,969 | Total | 3,657 | 3,576 | 7,233 |
| Population by broad age groups (in numbers) |  |  |  |  |  |  |  |
| 0-14 | 1,421 | 1,262 | 2,683 | 0-14 | 1,441 | 1,325 | 2,766 |
| 15-24 | 752 | 637 | 1,390 | 15-24 | 748 | 643 | 1,391 |
| 25-59 | 1,180 | 1,160 | 2,340 | 25-59 | 1,205 | 1,284 | 2,489 |
| 25-64 | 1,251 | 1,237 | 2,487 | 25-64 | 1,285 | 1,382 | 2,667 |
| 60+ | 264 | 292 | 556 | 60+ | 263 | 324 | 587 |
| 65+ | 194 | 215 | 409 | 65+ | 183 | 226 | 409 |
| Population by broad age groups (in percentages) |  |  |  |  |  |  |  |
| 0-14 | 39 | 38 | 38 | 0-14 | 39 | 37 | 38 |
| 15-24 | 21 | 19 | 20 | 15-24 | 20 | 18 | 19 |
| 25-59 | 33 | 35 | 34 | 25-59 | 33 | 36 | 34 |
| 25-64 | 35 | 37 | 36 | 25-64 | 35 | 39 | 37 |
| 60+ | 7 | 9 | 8 | 60+ | 7 | 9 | 8 |
| 65+ | 5 | 6 | 6 | 65+ | 5 | 6 | 6 |
| Age dependency ratio |  |  |  |  |  |  |  |
| 15-59 |  |  | 87 | 15-59 |  |  | 86 |
| 15-64 |  |  | 80 | 15-64 |  |  | 78 |
| Sex ratio (males per 100 females) |  |  |  |  |  |  |  |
|  |  |  | 108 |  |  |  | 102 |
| Median age (years) |  |  |  |  |  |  |  |
| Total | 20.3 | 21.6 | 20.9 | Total | 19.6 | 21.9 | 20.6 |
| Population growth 2006-2011 |  |  |  |  |  |  |  |
|  |  |  |  |  | Males | Females | Total |
| Total |  |  |  |  | 39 | 225 | 264 |
| Average an |  |  |  |  | 8 | 45 | 53 |
| Percentage | ence \% |  |  |  | 1.1 | 6.7 | 3.8 |
| Average an | rowth r |  |  |  | 0.2 | 1.3 | 0.7 |

Lapaha

Population trend: 1956-2011


Population pyramid by five-year age group and sex, 2006 and 2011


| Lapaha |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2006 |  |  |  | 2011 |  |  |  |
| Age | Males | Females | Total | Age | Males | Females | Total |
| Population by 5 -year age groups and sex |  |  |  |  |  |  |  |
| 0-4 | 532 | 519 | 1,051 | 0-4 | 548 | 516 | 1,064 |
| 5-9 | 506 | 449 | 955 | 5-9 | 494 | 457 | 951 |
| 10-14 | 472 | 444 | 916 | 10-14 | 469 | 421 | 890 |
| 15-19 | 396 | 343 | 739 | 15-19 | 415 | 388 | 803 |
| 20-24 | 330 | 325 | 655 | 20-24 | 262 | 310 | 572 |
| 25-29 | 252 | 254 | 506 | 25-29 | 242 | 288 | 530 |
| 30-34 | 221 | 217 | 438 | 30-34 | 209 | 228 | 437 |
| 35-39 | 203 | 230 | 433 | 35-39 | 191 | 207 | 398 |
| 40-44 | 178 | 177 | 355 | 40-44 | 196 | 207 | 403 |
| 45-49 | 131 | 125 | 256 | 45-49 | 149 | 153 | 302 |
| 50-54 | 98 | 118 | 216 | 50-54 | 133 | 117 | 250 |
| 55-59 | 84 | 82 | 166 | 55-59 | 93 | 113 | 206 |
| 60-64 | 70 | 88 | 158 | 60-64 | 80 | 78 | 158 |
| 65-69 | 71 | 74 | 145 | 65-69 | 63 | 82 | 145 |
| 70-74 | 63 | 54 | 117 | 70-74 | 56 | 58 | 114 |
| 75+ | 68 | 79 | 147 | 75+ | 77 | 77 | 154 |
| Total | 3,676 | 3,579 | 7,255 | Total | 3,678 | 3,702 | 7,380 |
| Population by broad age groups (in numbers) |  |  |  |  |  |  |  |
| 0-14 | 1,510 | 1,412 | 2,923 | 0-14 | 1,511 | 1,395 | 2,906 |
| 15-24 | 726 | 668 | 1,394 | 15-24 | 677 | 698 | 1,376 |
| 25-59 | 1,167 | 1,203 | 2,371 | 25-59 | 1,213 | 1,314 | 2,527 |
| 25-64 | 1,237 | 1,291 | 2,529 | 25-64 | 1,293 | 1,392 | 2,685 |
| 60+ | 272 | 295 | 567 | 60+ | 276 | 295 | 571 |
| 65+ | 202 | 207 | 409 | 65+ | 196 | 217 | 413 |
| Population by broad age groups (in percentages) |  |  |  |  |  |  |  |
| 0-14 | 41 | 39 | 40 | 0-14 | 41 | 38 | 39 |
| 15-24 | 20 | 19 | 19 | 15-24 | 18 | 19 | 19 |
| 25-59 | 32 | 34 | 33 | 25-59 | 33 | 35 | 34 |
| 25-64 | 34 | 36 | 35 | 25-64 | 35 | 38 | 36 |
| 60+ | 7 | 8 | 8 | 60+ | 8 | 8 | 8 |
| 65+ | 5 | 6 | 6 | 65+ | 5 | 6 | 6 |
| Age dependency ratio |  |  |  |  |  |  |  |
| 15-59 |  |  | 93 | 15-59 |  |  | 89 |
| 15-64 |  |  | 85 | 15-64 |  |  | 82 |
| Sex ratio (males per 100 females) |  |  |  |  |  |  |  |
|  |  |  | 103 |  |  |  | 99 |
| Median age (years) |  |  |  |  |  |  |  |
| Total | 19.1 | 20.5 | 19.8 | Total | 19.0 | 21.1 | 19.9 |
| Population growth 2006-2011 |  |  |  |  |  |  |  |
|  |  |  |  |  | Males | Females | Total |
| Total |  |  |  |  | 2 | 123 | 125 |
| Average ann |  |  |  |  | 0 | 25 | 25 |
| Percentage | ence \% |  |  |  | 0.1 | 3.4 | 1.7 |
| Average ann | rowth r |  |  |  | 0.0 | 0.7 | 0.3 |

## Nukunuku

Population trend: 1956-2011


Population pyramid by five-year age group and sex, 2006 and 2011
2006 (shaded area), 2011 (outlined)


| Nukunuku |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2006 |  |  |  | 2011 |  |  |  |
| Age | Males | Females | Total | Age | Males | Females | Total |
| Population by 5-year age groups and sex |  |  |  |  |  |  |  |
| 0-4 | 512 | 469 | 981 | 0-4 | 551 | 501 | 1,052 |
| 5-9 | 444 | 396 | 840 | 5-9 | 555 | 476 | 1,031 |
| 10-14 | 422 | 392 | 814 | 10-14 | 460 | 426 | 886 |
| 15-19 | 401 | 328 | 729 | 15-19 | 412 | 423 | 835 |
| 20-24 | 283 | 325 | 608 | 20-24 | 317 | 319 | 636 |
| 25-29 | 248 | 249 | 497 | 25-29 | 249 | 296 | 545 |
| 30-34 | 199 | 216 | 415 | 30-34 | 209 | 274 | 483 |
| 35-39 | 216 | 201 | 417 | 35-39 | 194 | 233 | 427 |
| 40-44 | 174 | 180 | 354 | 40-44 | 224 | 216 | 440 |
| 45-49 | 113 | 120 | 234 | 45-49 | 169 | 173 | 342 |
| 50-54 | 91 | 117 | 208 | 50-54 | 111 | 110 | 221 |
| 55-59 | 80 | 83 | 163 | 55-59 | 105 | 122 | 227 |
| 60-64 | 89 | 87 | 176 | 60-64 | 82 | 79 | 161 |
| 65-69 | 77 | 69 | 146 | 65-69 | 83 | 82 | 165 |
| 70-74 | 56 | 52 | 108 | 70-74 | 71 | 62 | 133 |
| 75+ | 56 | 72 | 128 | 75+ | 69 | 80 | 149 |
| Total | 3,462 | 3,358 | 6,820 | Total | 3,861 | 3,872 | 7,733 |
| Population by broad age groups (in numbers) |  |  |  |  |  |  |  |
| 0-14 | 1,378 | 1,258 | 2,635 | 0-14 | 1,566 | 1,403 | 2,969 |
| 15-24 | 684 | 653 | 1,337 | 15-24 | 729 | 742 | 1,471 |
| 25-59 | 1,122 | 1,167 | 2,288 | 25-59 | 1,261 | 1,424 | 2,685 |
| 25-64 | 1,211 | 1,254 | 2,465 | 25-64 | 1,343 | 1,503 | 2,846 |
| 60+ | 279 | 280 | 559 | 60+ | 305 | 303 | 608 |
| 65+ | 190 | 193 | 383 | 65+ | 223 | 224 | 447 |
| Population by broad age groups (in percentages) |  |  |  |  |  |  |  |
| 0-14 | 40 | 37 | 39 | 0-14 | 41 | 36 | 38 |
| 15-24 | 20 | 19 | 20 | 15-24 | 19 | 19 | 19 |
| 25-59 | 32 | 35 | 34 | 25-59 | 33 | 37 | 35 |
| 25-64 | 35 | 37 | 36 | 25-64 | 35 | 39 | 37 |
| 60+ | 8 | 8 | 8 | 60+ | 8 | 8 | 8 |
| 65+ | 5 | 6 | 6 | 65+ | 6 | 6 | 6 |
| Age dependency ratio |  |  |  |  |  |  |  |
| 15-59 |  |  | 88 | 15-59 |  |  | 86 |
| 15-64 |  |  | 79 | 15-64 |  |  | 79 |
| Sex ratio (males per 100 females) |  |  |  |  |  |  |  |
|  |  |  | 103 |  |  |  | 100 |
| Median age (years) |  |  |  |  |  |  |  |
| Total | 19.4 | 21.4 | 20.4 | Total | 19.4 | 21.7 | 20.5 |
| Population growth 2006-2011 |  |  |  |  |  |  |  |
|  |  |  |  |  | Males | Females | Total |
| Total |  |  |  |  | 399 | 514 | 913 |
| Average an |  |  |  |  | 80 | 103 | 183 |
| Percentage | nce \% |  |  |  | 11.5 | 15.3 | 13.4 |
| Average an | owth rate |  |  |  | 2.2 | 2.8 | 2.5 |

Kolovai

Population trend: 1956-2011


Population pyramid by five-year age group and sex, 2006 and 2011
2006 (shaded area), 2011 (outlined)


| Kolovai |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2006 |  |  |  | 2011 |  |  |  |
| Age | Males | Females | Total | Age | Males | Females | Total |
| Population by 5-year age groups and sex |  |  |  |  |  |  |  |
| 0-4 | 311 | 273 | 584 | 0-4 | 320 | 257 | 577 |
| 5-9 | 240 | 225 | 465 | 5-9 | 276 | 235 | 511 |
| 10-14 | 230 | 229 | 459 | 10-14 | 232 | 208 | 440 |
| 15-19 | 197 | 176 | 373 | 15-19 | 218 | 212 | 430 |
| 20-24 | 177 | 193 | 370 | 20-24 | 138 | 167 | 305 |
| 25-29 | 155 | 159 | 314 | 25-29 | 135 | 167 | 302 |
| 30-34 | 143 | 151 | 294 | 30-34 | 132 | 125 | 257 |
| 35-39 | 147 | 133 | 280 | 35-39 | 105 | 126 | 231 |
| 40-44 | 105 | 77 | 182 | 40-44 | 111 | 116 | 227 |
| 45-49 | 61 | 90 | 151 | 45-49 | 90 | 71 | 161 |
| 50-54 | 59 | 77 | 136 | 50-54 | 54 | 77 | 131 |
| 55-59 | 54 | 60 | 114 | 55-59 | 55 | 66 | 121 |
| 60-64 | 52 | 80 | 132 | 60-64 | 52 | 64 | 116 |
| 65-69 | 58 | 42 | 100 | 65-69 | 54 | 64 | 118 |
| 70-74 | 27 | 31 | 58 | 70-74 | 37 | 35 | 72 |
| 75+ | 33 | 48 | 81 | 75+ | 28 | 49 | 77 |
| Total | 2,052 | 2,044 | 4,096 | Total | 2,037 | 2,039 | 4,076 |
| Population by broad age groups (in numbers) |  |  |  |  |  |  |  |
| 0-14 | 782 | 727 | 1,509 | 0-14 | 828 | 700 | 1,528 |
| 15-24 | 375 | 369 | 744 | 15-24 | 356 | 379 | 735 |
| 25-59 | 725 | 747 | 1,472 | 25-59 | 682 | 748 | 1,430 |
| 25-64 | 778 | 827 | 1,605 | 25-64 | 734 | 812 | 1,546 |
| 60+ | 170 | 201 | 371 | 60+ | 171 | 212 | 383 |
| 65+ | 118 | 121 | 239 | 65+ | 119 | 148 | 267 |
| Population by broad age groups (in percentages) |  |  |  |  |  |  |  |
| 0-14 | 38 | 36 | 37 | 0-14 | 41 | 34 | 37 |
| 15-24 | 18 | 18 | 18 | 15-24 | 17 | 19 | 18 |
| 25-59 | 35 | 37 | 36 | 25-59 | 33 | 37 | 35 |
| 25-64 | 38 | 40 | 39 | 25-64 | 36 | 40 | 38 |
| 60+ | 8 | 10 | 9 | 60+ | 8 | 10 | 9 |
| 65+ | 6 | 6 | 6 | 65+ | 6 | 7 | 7 |
| Age dependency ratio |  |  |  |  |  |  |  |
| 15-59 |  |  | 85 | 15-59 |  |  | 88 |
| 15-64 |  |  | 74 | 15-64 |  |  | 79 |
| Sex ratio (males per 100 females) |  |  |  |  |  |  |  |
|  |  |  | 100 |  |  |  | 100 |
| Median age (years) |  |  |  |  |  |  |  |
| Total | 21.3 | 23.1 | 22.2 | Total | 19.4 | 23.2 | 21.3 |
| Population growth 2006-2011 |  |  |  |  |  |  |  |
|  |  |  |  |  | Males | Females | Total |
| Total |  |  |  |  | -15 | -5 | -20 |
| Average an |  |  |  |  | -3 | -1 | -4 |
| Percentage | ence \% |  |  |  | -0.7 | -0.2 | -0.5 |
| Average an | owth rate |  |  |  | -0.1 | 0.0 | -0.1 |

## Neiafu

Population trend: 1956-2011


Population pyramid by five-year age group and sex, 2006 and 2011


| Neiafu |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2006 |  |  |  | 2011 |  |  |  |
| Age | Males | Females | Total | Age | Males | Females | Total |
| Population by 5-year age groups and sex |  |  |  |  |  |  |  |
| 0-4 | 422 | 329 | 751 | 0-4 | 379 | 358 | 737 |
| 5-9 | 408 | 337 | 745 | 5-9 | 392 | 335 | 727 |
| 10-14 | 361 | 351 | 712 | 10-14 | 402 | 335 | 737 |
| 15-19 | 305 | 300 | 605 | 15-19 | 300 | 319 | 619 |
| 20-24 | 222 | 234 | 456 | 20-24 | 188 | 217 | 405 |
| 25-29 | 161 | 168 | 329 | 25-29 | 181 | 193 | 374 |
| 30-34 | 164 | 172 | 336 | 30-34 | 140 | 180 | 320 |
| 35-39 | 163 | 170 | 333 | 35-39 | 142 | 159 | 301 |
| 40-44 | 159 | 161 | 320 | 40-44 | 164 | 166 | 330 |
| 45-49 | 125 | 129 | 254 | 45-49 | 146 | 122 | 268 |
| 50-54 | 109 | 116 | 225 | 50-54 | 110 | 111 | 221 |
| 55-59 | 91 | 91 | 182 | 55-59 | 91 | 110 | 201 |
| 60-64 | 65 | 85 | 150 | 60-64 | 81 | 77 | 158 |
| 65-69 | 62 | 67 | 129 | 65-69 | 60 | 56 | 116 |
| 70-74 | 46 | 54 | 100 | 70-74 | 52 | 59 | 111 |
| 75+ | 66 | 92 | 158 | 75+ | 65 | 84 | 149 |
| Total | 2,929 | 2,858 | 5,787 | Total | 2,893 | 2,881 | 5,774 |
| Population by broad age groups (in numbers) |  |  |  |  |  |  |  |
| 0-14 | 1,191 | 1,018 | 2,209 | 0-14 | 1,173 | 1,028 | 2,201 |
| 15-24 | 527 | 534 | 1,061 | 15-24 | 488 | 536 | 1,024 |
| 25-59 | 972 | 1,008 | 1,980 | 25-59 | 974 | 1,041 | 2,015 |
| 25-64 | 1,037 | 1,093 | 2,130 | 25-64 | 1,055 | 1,118 | 2,173 |
| 60+ | 239 | 298 | 537 | 60+ | 258 | 276 | 534 |
| 65+ | 174 | 213 | 387 | 65+ | 177 | 199 | 376 |
| Population by broad age groups (in percentages) |  |  |  |  |  |  |  |
| 0-14 | 41 | 36 | 38 | 0-14 | 41 | 36 | 38 |
| 15-24 | 18 | 19 | 18 | 15-24 | 17 | 19 | 18 |
| 25-59 | 33 | 35 | 34 | 25-59 | 34 | 36 | 35 |
| 25-64 | 35 | 38 | 37 | 25-64 | 36 | 39 | 38 |
| 60+ | $8$ | 10 | 9 | 60+ | 9 | 10 | 9 |
| $65+$ | $6$ | 7 | 7 | $65+$ | 6 | 7 | 7 |
| Age dependency ratio |  |  |  |  |  |  |  |
| 15-59 |  |  | 90 | 15-59 |  |  | 90 |
| 15-64 |  |  | 81 | 15-64 |  |  | 81 |
| Sex ratio (males per 100 females) |  |  |  |  |  |  |  |
|  |  |  | 102 |  |  |  | 100 |
| Median age (years) |  |  |  |  |  |  |  |
| Total | 19.5 | 22.4 | 20.9 | Total | 19.6 | 22.2 | 20.8 |
| Population growth 2006-2011 |  |  |  |  |  |  |  |
|  |  |  |  |  | Males | Females | Total |
| Total |  |  |  |  | -36 | 23 | -13 |
| Average an |  |  |  |  | -7 | 5 | -3 |
| Percentage | rence \% |  |  |  | -1.2 | 0.8 | -0.2 |
| Average an | growth r |  |  |  | -0.2 | 0.2 | 0.0 |

## Pangaimotu

Population trend: 2006-2011


Population pyramid by five-year age group and sex, 2006 and 2011


| Pangaimotu |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2006 |  |  |  | 2011 |  |  |  |
| Age | Males | Females | Total | Age | Males | Females | Total |
| Population by 5-year age groups and sex |  |  |  |  |  |  |  |
| 0-4 | 109 | 108 | 216 | 0-4 | 86 | 80 | 166 |
| 5-9 | 97 | 98 | 194 | 5-9 | 108 | 88 | 196 |
| 10-14 | 100 | 88 | 187 | 10-14 | 73 | 76 | 149 |
| 15-19 | 85 | 63 | 149 | 15-19 | 72 | 66 | 138 |
| 20-24 | 51 | 42 | 94 | 20-24 | 55 | 43 | 98 |
| 25-29 | 32 | 39 | 71 | 25-29 | 45 | 44 | 89 |
| 30-34 | 39 | 39 | 78 | 30-34 | 29 | 38 | 67 |
| 35-39 | 52 | 45 | 98 | 35-39 | 35 | 30 | 65 |
| 40-44 | 33 | 41 | 74 | 40-44 | 41 | 34 | 75 |
| 45-49 | 20 | 22 | 42 | 45-49 | 26 | 39 | 65 |
| 50-54 | 27 | 27 | 54 | 50-54 | 25 | 26 | 51 |
| 55-59 | 17 | 24 | 41 | 55-59 | 21 | 19 | 40 |
| 60-64 | 17 | 14 | 31 | 60-64 | 19 | 19 | 38 |
| 65-69 | 12 | 19 | 31 | 65-69 | 16 | 15 | 31 |
| 70-74 | 12 | 10 | 22 | 70-74 | 7 | 15 | 22 |
| 75+ | 12 | 16 | 28 | 75+ | 17 | 18 | 35 |
| Total | 716 | 696 | 1,412 | Total | 675 | 650 | 1,325 |
| Population by broad age groups (in numbers) |  |  |  |  |  |  |  |
| 0-14 | 305 | 293 | 597 | 0-14 | 267 | 244 | 511 |
| 15-24 | 137 | 106 | 242 | 15-24 | 127 | 109 | 236 |
| 25-59 | 221 | 238 | 460 | 25-59 | 222 | 230 | 452 |
| 25-64 | 238 | 252 | 491 | 25-64 | 241 | 249 | 490 |
| 60+ | 53 | 59 | 113 | 60+ | 59 | 67 | 126 |
| 65+ | 36 | 45 | 81 | 65+ | 40 | 48 | 88 |
| Population by broad age groups (in percentages) |  |  |  |  |  |  |  |
| 0-14 | 43 | 42 | 42 | 0-14 | 40 | 38 | 39 |
| 15-24 | 19 | 15 | 17 | 15-24 | 19 | 17 | 18 |
| 25-59 | 31 | 34 | 33 | 25-59 | 33 | 35 | 34 |
| 25-64 | 33 | 36 | 35 | 25-64 | 36 | 38 | 37 |
| 60+ | 7 | 9 | 8 | 60+ | 9 | 10 | 10 |
| 65+ | 5 | 7 | 6 | 65+ | 6 | 7 | 7 |
| Age dependency ratio |  |  |  |  |  |  |  |
| 15-59 |  |  | 101 | 15-59 |  |  | 93 |
| 15-64 |  |  | 93 | 15-64 |  |  | 83 |
| Sex ratio (males per 100 females) |  |  |  |  |  |  |  |
|  |  |  | 103 |  |  |  | 104 |
| Median age (years) |  |  |  |  |  |  |  |
| Total | 18.1 | 19.4 | 18.7 | Total | 19.9 | 21.8 | 20.7 |
| Population growth 2006-2011 |  |  |  |  |  |  |  |
|  |  |  |  |  | Males | Females | Total |
| Total |  |  |  |  | -41 | -46 | -87 |
| Average an |  |  |  |  | -8 | -9 | -17 |
| Percentage | rence \% |  |  |  | -5.7 | -6.6 | -6.2 |
| Average an | growth |  |  |  | -1.2 | -1.4 | -1.3 |

Hahake

Population trend: 1956-2011


Population pyramid by five-year age group and sex, 1996 and 2006


| Hahake |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2006 |  |  |  | 2011 |  |  |  |
| Age | Males | Females | Total | Age | Males | Females | Total |
| Population by 5-year age groups and sex |  |  |  |  |  |  |  |
| 0-4 | 186 | 138 | 324 | 0-4 | 154 | 117 | 271 |
| 5-9 | 175 | 171 | 346 | 5-9 | 176 | 131 | 307 |
| 10-14 | 180 | 167 | 347 | 10-14 | 164 | 157 | 321 |
| 15-19 | 122 | 116 | 238 | 15-19 | 127 | 143 | 270 |
| 20-24 | 61 | 72 | 133 | 20-24 | 57 | 73 | 130 |
| 25-29 | 61 | 67 | 128 | 25-29 | 56 | 60 | 116 |
| 30-34 | 64 | 78 | 142 | 30-34 | 51 | 55 | 106 |
| 35-39 | 93 | 84 | 177 | 35-39 | 55 | 65 | 120 |
| 40-44 | 72 | 66 | 138 | 40-44 | 77 | 77 | 154 |
| 45-49 | 37 | 39 | 76 | 45-49 | 56 | 59 | 115 |
| 50-54 | 30 | 35 | 65 | 50-54 | 39 | 43 | 82 |
| 55-59 | 26 | 42 | 68 | 55-59 | 20 | 28 | 48 |
| 60-64 | 27 | 36 | 63 | 60-64 | 24 | 35 | 59 |
| 65-69 | 35 | 28 | 63 | 65-69 | 27 | 35 | 62 |
| 70-74 | 32 | 22 | 54 | 70-74 | 26 | 25 | 51 |
| 75+ | 33 | 26 | 59 | 75+ | 45 | 40 | 85 |
| Total | 1,234 | 1,188 | 2,422 | Total | 1,154 | 1,143 | 2,297 |
| Population by broad age groups (in numbers) |  |  |  |  |  |  |  |
| 0-14 | 541 | 476 | 1,017 | 0-14 | 494 | 405 | 899 |
| 15-24 | 183 | 188 | 371 | 15-24 | 184 | 216 | 400 |
| 25-59 | 383 | 411 | 794 | 25-59 | 354 | 387 | 741 |
| 25-64 | 410 | 447 | 857 | 25-64 | 378 | 422 | 800 |
| 60+ | 127 | 112 | 239 | 60+ | 122 | 135 | 257 |
| 65+ | 100 | 76 | 176 | $65+$ | 98 | 100 | 198 |
| Population by broad age groups (in percentages) |  |  |  |  |  |  |  |
| 0-14 | 44 | 40 | 42 | 0-14 | 43 | 35 | 39 |
| 15-24 | 15 | 16 | 15 | 15-24 | 16 | 19 | 17 |
| 25-59 | 31 | 35 | 33 | 25-59 | 31 | 34 | 32 |
| 25-64 | 33 | 38 | 35 | 25-64 | 33 | 37 | 35 |
| 60+ | 10 |  | 10 | 60+ | 11 | 12 | 11 |
| 65+ | 8 | 6 | 7 | 65+ | 8 | 9 | 9 |
| Age dependency ratio |  |  |  |  |  |  |  |
| 15-59 |  |  | 108 | 15-59 |  |  | 101 |
| 15-64 |  |  | 97 | 15-64 |  |  | 91 |
| Sex ratio (males per 100 females) |  |  |  |  |  |  |  |
|  |  |  | 104 |  |  |  | 101 |
| Median age (years) |  |  |  |  |  |  |  |
| Total | 18.1 | 20.1 | 19.1 | Total | 18.3 | 21.6 | 19.6 |
| Population growth 2006-2011 |  |  |  |  |  |  |  |
|  |  |  |  |  | Males | Females | Total |
| Total |  |  |  |  | -80 | -45 | -125 |
| Average an |  |  |  |  | -16 | -9 | -25 |
| Percentage | nce \% |  |  |  | -6.5 | -3.8 | -5.2 |
| Average an | owth rat |  |  |  | -1.3 | -0.8 | -1.1 |

## Leimatu'a

Population trend: 1956-2011


Population pyramid by five-year age group and sex, 2006 and 2011


| Leimatu'a |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2006 |  |  |  | 2011 |  |  |  |
| Age | Males | Females | Total | Age | Males | Females | Total |
| Population by 5-year age groups and sex |  |  |  |  |  |  |  |
| 0-4 | 193 | 189 | 382 | 0-4 | 183 | 161 | 344 |
| 5-9 | 191 | 163 | 354 | 5-9 | 172 | 144 | 316 |
| 10-14 | 180 | 169 | 349 | 10-14 | 152 | 133 | 285 |
| 15-19 | 132 | 143 | 275 | 15-19 | 119 | 109 | 228 |
| 20-24 | 120 | 114 | 234 | 20-24 | 69 | 89 | 158 |
| 25-29 | 95 | 91 | 186 | 25-29 | 82 | 100 | 182 |
| 30-34 | 83 | 83 | 166 | 30-34 | 90 | 73 | 163 |
| 35-39 | 80 | 73 | 153 | 35-39 | 79 | 67 | 146 |
| 40-44 | 48 | 54 | 102 | 40-44 | 70 | 55 | 125 |
| 45-49 | 59 | 62 | 121 | 45-49 | 35 | 41 | 76 |
| 50-54 | 40 | 56 | 96 | 50-54 | 41 | 46 | 87 |
| 55-59 | 55 | 53 | 108 | 55-59 | 34 | 40 | 74 |
| 60-64 | 32 | 33 | 65 | 60-64 | 43 | 43 | 86 |
| 65-69 | 27 | 24 | 51 | 65-69 | 32 | 30 | 62 |
| 70-74 | 30 | 19 | 49 | 70-74 | 21 | 22 | 43 |
| 75+ | 21 | 29 | 50 | 75+ | 30 | 31 | 61 |
| Total | 1,387 | 1,355 | 2,742 | Total | 1,252 | 1,184 | 2,436 |
| Population by broad age groups (in numbers) |  |  |  |  |  |  |  |
| 0-14 | 564 | 521 | 1,085 | 0-14 | 507 | 438 | 945 |
| 15-24 | 252 | 257 | 509 | 15-24 | 188 | 198 | 386 |
| 25-59 | 460 | 472 | 932 | 25-59 | 431 | 422 | 853 |
| 25-64 | 492 | 505 | 997 | 25-64 | 474 | 465 | 939 |
| 60+ | 110 | 105 | 215 | 60+ | 126 | 126 | 252 |
| 65+ | 78 | 72 | 150 | 65+ | 83 | 83 | 166 |
| Population by broad age groups (in percentages) |  |  |  |  |  |  |  |
| 0-14 | 41 | 38 | 40 | 0-14 | 40 | 37 | 39 |
| 15-24 | 18 | 19 | 19 | 15-24 | 15 | 17 | 16 |
| 25-59 | 33 | 35 | 34 | 25-59 | 34 | 36 | 35 |
| 25-64 | 35 | 37 | 36 | 25-64 | 38 | 39 | 39 |
| 60+ | 8 | 8 | 8 | 60+ | 10 | 11 | 10 |
| 65+ | 6 | 5 | 5 | 65+ | 7 | 7 | 7 |
| Age dependency ratio |  |  |  |  |  |  |  |
| 15-59 |  |  | 90 | 15-59 |  |  | 97 |
| 15-64 |  |  | 82 | 15-64 |  |  | 84 |
| Sex ratio (males per 100 females) |  |  |  |  |  |  |  |
|  |  |  | 102 |  |  |  | 106 |
| Median age (years) |  |  |  |  |  |  |  |
| Total | 19.9 | 20.6 | 20.2 | Total | 20.0 | 22.6 | 21.4 |
| Population growth 2006-2011 |  |  |  |  |  |  |  |
|  |  |  |  |  | Males | Females | Total |
| Total |  |  |  |  | -135 | -171 | -306 |
| Average ann |  |  |  |  | -27 | -34 | -61 |
| Percentage | ence \% |  |  |  | -9.7 | -12.6 | -11.2 |
| Average ann | owth ra |  |  |  | -2.0 | -2.7 | -2.4 |

## Hihifo

Population trend: 2006-2011


Population pyramid by five-year age group and sex, 2006 and 2011
2006 (shaded area), 2011 (outlined)


| Hihifo |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2006 |  |  |  | 2011 |  |  |  |
| Age | Males | Females | Total | Age | Males | Females | Total |
| Population by 5-year age groups and sex |  |  |  |  |  |  |  |
| 0-4 | 175 | 144 | 319 | 0-4 | 130 | 139 | 269 |
| 5-9 | 161 | 141 | 302 | 5-9 | 167 | 135 | 302 |
| 10-14 | 153 | 148 | 301 | 10-14 | 140 | 128 | 268 |
| 15-19 | 122 | 111 | 233 | 15-19 | 109 | 98 | 207 |
| 20-24 | 71 | 81 | 152 | 20-24 | 69 | 58 | 127 |
| 25-29 | 75 | 55 | 130 | 25-29 | 56 | 64 | 120 |
| 30-34 | 69 | 74 | 143 | 30-34 | 57 | 53 | 110 |
| 35-39 | 73 | 67 | 140 | 35-39 | 64 | 72 | 136 |
| 40-44 | 44 | 48 | 92 | 40-44 | 62 | 66 | 128 |
| 45-49 | 43 | 42 | 85 | 45-49 | 44 | 40 | 84 |
| 50-54 | 39 | 44 | 83 | 50-54 | 35 | 33 | 68 |
| 55-59 | 30 | 35 | 65 | 55-59 | 44 | 34 | 78 |
| 60-64 | 44 | 24 | 68 | 60-64 | 36 | 36 | 72 |
| 65-69 | 27 | 28 | 55 | 65-69 | 28 | 19 | 47 |
| 70-74 | 28 | 25 | 53 | 70-74 | 19 | 20 | 39 |
| 75+ | 21 | 25 | 46 | 75+ | 19 | 31 | 50 |
| Total | 1,175 | 1,092 | 2,267 | Total | 1,079 | 1,026 | 2,105 |
| Population by broad age groups (in numbers) |  |  |  |  |  |  |  |
| 0-14 | 489 | 433 | 922 | 0-14 | 437 | 402 | 839 |
| 15-24 | 193 | 192 | 385 | 15-24 | 178 | 156 | 334 |
| 25-59 | 373 | 365 | 738 | 25-59 | 362 | 362 | 724 |
| 25-64 | 417 | 389 | 806 | 25-64 | 398 | 398 | 796 |
| 60+ | 120 | 102 | 222 | 60+ | 102 | 106 | 208 |
| 65+ | 76 | 78 | 154 | 65+ | 66 | 70 | 136 |
| Population by broad age groups (in percentages) |  |  |  |  |  |  |  |
| 0-14 | 42 | 40 | 41 | 0-14 | 41 | 39 | 40 |
| 15-24 | 16 | 18 | 17 | 15-24 | 16 | 15 | 16 |
| 25-59 | 32 | 33 | 33 | 25-59 | 34 | 35 | 34 |
| 25-64 | 35 | 36 | 36 | 25-64 | 37 | 39 | 38 |
| 60+ | 10 | 9 | 10 | 60+ | 9 | 10 | 10 |
| 65+ | 6 | 7 | 7 | 65+ | 6 | 7 | 6 |
| Age dependency ratio |  |  |  |  |  |  |  |
| 15-59 |  |  | 102 | 15-59 |  |  | 99 |
| 15-64 |  |  | 90 | 15-64 |  |  | 86 |
| Sex ratio (males per 100 females) |  |  |  |  |  |  |  |
|  |  |  | 108 |  |  |  | 105 |
| Median age (years) |  |  |  |  |  |  |  |
| Total | 19.1 | 20.2 | 19.5 | Total | 19.7 | 21.2 | 20.3 |
| Population growth 2006-2011 |  |  |  |  |  |  |  |
|  |  |  |  |  | Males | Females | Total |
| Total |  |  |  |  | -96 | -66 | -162 |
| Average an |  |  |  |  | -19 | -13 | -32 |
| Percentage | rence \% |  |  |  | -8.2 | -6.0 | -7.1 |
| Average an | growth r |  |  |  | -1.7 | -1.2 | -1.5 |

Motu

Population trend: 2006-2011


Population pyramid by five-year age group and sex, 2006 and 2011


| Motu |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2006 |  |  |  | 2011 |  |  |  |
| Age | Males | Females | Total | Age | Males | Females | Total |
| Population by 5-year age groups and sex |  |  |  |  |  |  |  |
| 0-4 | 59 | 56 | 115 | 0-4 | 67 | 52 | 119 |
| 5-9 | 63 | 49 | 112 | 5-9 | 73 | 73 | 146 |
| 10-14 | 54 | 48 | 102 | 10-14 | 60 | 49 | 109 |
| 15-19 | 27 | 32 | 59 | 15-19 | 50 | 51 | 101 |
| 20-24 | 25 | 25 | 50 | 20-24 | 29 | 25 | 54 |
| 25-29 | 26 | 26 | 52 | 25-29 | 24 | 32 | 56 |
| 30-34 | 27 | 24 | 51 | 30-34 | 17 | 24 | 41 |
| 35-39 | 22 | 27 | 49 | 35-39 | 21 | 27 | 48 |
| 40-44 | 33 | 20 | 53 | 40-44 | 29 | 28 | 57 |
| 45-49 | 26 | 23 | 49 | 45-49 | 35 | 25 | 60 |
| 50-54 | 28 | 20 | 48 | 50-54 | 24 | 26 | 50 |
| 55-59 | 20 | 14 | 34 | 55-59 | 24 | 14 | 38 |
| 60-64 | 9 | 11 | 20 | 60-64 | 19 | 14 | 33 |
| 65-69 | 16 | 10 | 26 | 65-69 | 10 | 8 | 18 |
| 70-74 | 10 | 12 | 22 | 70-74 | 10 | 11 | 21 |
| 75+ | 11 | 22 | 33 | 75+ | 14 | 20 | 34 |
| Total | 456 | 419 | 875 | Total | 506 | 479 | 985 |
| Population by broad age groups (in numbers) |  |  |  |  |  |  |  |
| 0-14 | 176 | 153 | 329 | 0-14 | 200 | 174 | 374 |
| 15-24 | 52 | 57 | 109 | 15-24 | 79 | 76 | 155 |
| 25-59 | 182 | 154 | 336 | 25-59 | 174 | 176 | 350 |
| 25-64 | 191 | 165 | 356 | 25-64 | 193 | 190 | 383 |
| 60+ | 46 | 55 | 101 | 60+ | 53 | 53 | 106 |
| 65+ | 37 | 44 | 81 | $65+$ | 34 | 39 | 73 |
| Population by broad age groups (in percentages) |  |  |  |  |  |  |  |
| 0-14 | 39 | 37 | 38 | 0-14 | 40 | 36 | 38 |
| 15-24 | 11 | 14 | 12 | 15-24 | 16 | 16 | 16 |
| 25-59 | 40 | 37 | 38 | 25-59 | 34 | 37 | 36 |
| 25-64 | 42 | 39 | 41 | 25-64 | 38 | 40 | 39 |
| 60+ | 10 | 13 | 12 | 60+ | 10 | 11 | 11 |
| 65+ | 8 | 11 | 9 | 65+ | 7 | 8 | 7 |
| Age dependency ratio |  |  |  |  |  |  |  |
| 15-59 |  |  | 97 | 15-59 |  |  | 95 |
| 15-64 |  |  | 88 | 15-64 |  |  | 83 |
| Sex ratio (males per 100 females) |  |  |  |  |  |  |  |
|  |  |  | 109 |  |  |  | 106 |
| Median age (years) |  |  |  |  |  |  |  |
| Total | 25.1 | 25.0 | 25.0 | Total | 20.6 | 23.0 | 21.7 |
| Population growth 2006-2011 |  |  |  |  |  |  |  |
|  |  |  |  |  | Males | Females | Total |
| Total |  |  |  |  | 50 | 60 | 110 |
| Average an |  |  |  |  | 10 | 12 | 22 |
| Percentage | rence \% |  |  |  | 11.0 | 14.3 | 12.6 |
| Average an | growth |  |  |  | 2.1 | 2.7 | 2.4 |

## Pangai Hp

Population trend: 1956-2011


Population pyramid by five-year age group and sex, 2006 and 2011


| Pangai Hp |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2006 |  |  |  | 2011 |  |  |  |
| Age | Males | Females | Total | Age | Males | Females | Total |
| Population by 5 -year age groups and sex |  |  |  |  |  |  |  |
| 0-4 | 200 | 171 | 371 | 0-4 | 112 | 117 | 229 |
| 5-9 | 186 | 163 | 349 | 5-9 | 178 | 132 | 310 |
| 10-14 | 229 | 189 | 418 | 10-14 | 168 | 159 | 327 |
| 15-19 | 195 | 147 | 342 | 15-19 | 160 | 133 | 293 |
| 20-24 | 99 | 111 | 210 | 20-24 | 79 | 73 | 152 |
| 25-29 | 96 | 101 | 197 | 25-29 | 69 | 71 | 140 |
| 30-34 | 75 | 101 | 176 | 30-34 | 76 | 73 | 149 |
| 35-39 | 84 | 88 | 172 | 35-39 | 53 | 71 | 124 |
| 40-44 | 70 | 73 | 143 | 40-44 | 77 | 75 | 152 |
| 45-49 | 68 | 61 | 129 | 45-49 | 58 | 54 | 112 |
| 50-54 | 49 | 56 | 105 | 50-54 | 55 | 48 | 103 |
| 55-59 | 34 | 54 | 88 | 55-59 | 34 | 48 | 82 |
| 60-64 | 32 | 29 | 61 | 60-64 | 30 | 33 | 63 |
| 65-69 | 35 | 42 | 77 | 65-69 | 28 | 26 | 54 |
| 70-74 | 30 | 27 | 57 | 70-74 | 29 | 26 | 55 |
| 75+ | 30 | 42 | 72 | 75+ | 28 | 37 | 65 |
| Total | 1,512 | 1,455 | 2,967 | Total | 1,234 | 1,176 | 2,410 |
| Population by broad age groups (in numbers) |  |  |  |  |  |  |  |
| 0-14 | 615 | 523 | 1,138 | 0-14 | 458 | 408 | 866 |
| 15-24 | 294 | 258 | 552 | 15-24 | 239 | 206 | 445 |
| 25-59 | 476 | 534 | 1,010 | 25-59 | 422 | 440 | 862 |
| 25-64 | 508 | 563 | 1,071 | 25-64 | 452 | 473 | 925 |
| 60+ | 127 | 140 | 267 | 60+ | 115 | 122 | 237 |
| 65+ | 95 | 111 | 206 | 65+ | 85 | 89 | 174 |
| Population by broad age groups (in percentages) |  |  |  |  |  |  |  |
| 0-14 | 41 | 36 | 38 | 0-14 | 37 | 35 | 36 |
| 15-24 | 19 | 18 | 19 | 15-24 | 19 | 18 | 18 |
| 25-59 | 31 | 37 | 34 | 25-59 | 34 | 37 | 36 |
| 25-64 | 34 | 39 | 36 | 25-64 | 37 | 40 | 38 |
| 60+ | 8 | 10 | 9 | 60+ | 9 | 10 | 10 |
| 65+ | 6 | 8 | 7 | 65+ | 7 | 8 | 7 |
| Age dependency ratio |  |  |  |  |  |  |  |
| 15-59 |  |  | 90 | 15-59 |  |  | 84 |
| 15-64 |  |  | 83 | 15-64 |  |  | 76 |
| Sex ratio (males per 100 females) |  |  |  |  |  |  |  |
|  |  |  | 104 |  |  |  | 105 |
| Median age (years) |  |  |  |  |  |  |  |
| Total | 18.6 | 22.6 | 20.1 | Total | 20.0 | 23.3 | 21.5 |
| Population growth 2006-2011 |  |  |  |  |  |  |  |
|  |  |  |  |  | Males | Females | Total |
| Total |  |  |  |  | -278 | -279 | -557 |
| Average an |  |  |  |  | -56 | -56 | -111 |
| Percentage | ence \% |  |  |  | -18.4 | -19.2 | -18.8 |
| Average an | owth rate |  |  |  | -4.1 | -4.3 | -4.2 |

Foa

Population trend: 1956-2011


Population pyramid by five-year age group and sex, 2006 and 2011
2006 (shaded area), 2011 (outlined)


| Foa |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2006 |  |  |  | 2011 |  |  |  |
| Age | Males | Females | Total | Age | Males | Females | Total |
| Population by 5-year age groups and sex |  |  |  |  |  |  |  |
| 0-4 | 106 | 94 | 201 | 0-4 | 116 | 90 | 206 |
| 5-9 | 99 | 82 | 181 | 5-9 | 91 | 79 | 170 |
| 10-14 | 84 | 88 | 172 | 10-14 | 81 | 79 | 160 |
| 15-19 | 88 | 76 | 164 | 15-19 | 76 | 66 | 142 |
| 20-24 | 75 | 71 | 146 | 20-24 | 32 | 59 | 91 |
| 25-29 | 56 | 43 | 99 | 25-29 | 48 | 59 | 107 |
| 30-34 | 42 | 33 | 75 | 30-34 | 42 | 39 | 81 |
| 35-39 | 47 | 35 | 82 | 35-39 | 43 | 34 | 77 |
| 40-44 | 28 | 45 | 73 | 40-44 | 28 | 35 | 63 |
| 45-49 | 32 | 30 | 62 | 45-49 | 28 | 31 | 59 |
| 50-54 | 21 | 29 | 50 | 50-54 | 24 | 27 | 51 |
| 55-59 | 20 | 27 | 47 | 55-59 | 22 | 29 | 51 |
| 60-64 | 21 | 19 | 40 | 60-64 | 17 | 16 | 33 |
| 65-69 | 23 | 15 | 38 | 65-69 | 14 | 12 | 26 |
| 70-74 | 11 | 8 | 19 | 70-74 | 14 | 11 | 25 |
| 75+ | 10 | 17 | 27 | 75+ | 8 | 9 | 17 |
| Total | 765 | 714 | 1,479 | Total | 684 | 675 | 1,359 |
| Population by broad age groups (in numbers) |  |  |  |  |  |  |  |
| 0-14 | 290 | 265 | 554 | 0-14 | 288 | 248 | 536 |
| 15-24 | 163 | 147 | 311 | 15-24 | 108 | 125 | 233 |
| 25-59 | 247 | 243 | 489 | 25-59 | 235 | 254 | 489 |
| 25-64 | 268 | 262 | 529 | 25-64 | 252 | 270 | 522 |
| 60+ | 65 | 59 | 124 | 60+ | 53 | 48 | 101 |
| 65+ | 44 | 40 | 84 | 65+ | 36 | 32 | 68 |
| Population by broad age groups (in percentages) |  |  |  |  |  |  |  |
| 0-14 | 38 | 37 | 37 | 0-14 | 42 | 37 | 39 |
| 15-24 | 21 | 21 | 21 | 15-24 | 16 | 19 | 17 |
| 25-59 | 32 | 34 | 33 | 25-59 | 34 | 38 | 36 |
| 25-64 | 35 | 37 | 36 | 25-64 | 37 | 40 | 38 |
| 60+ | 9 | 8 | 8 | 60+ | 8 | 7 | 7 |
| 65+ | 6 | 6 | 6 | 65+ | 5 | 5 | 5 |
| Age dependency ratio |  |  |  |  |  |  |  |
| 15-59 |  |  | 85 | 15-59 |  |  | 88 |
| 15-64 |  |  | 76 | 15-64 |  |  | 80 |
| Sex ratio (males per 100 females) |  |  |  |  |  |  |  |
|  |  |  | 107 |  |  |  | 101 |
| Median age (years) |  |  |  |  |  |  |  |
| Total | 20.3 | 21.2 | 20.7 | Total | 18.6 | 22.0 | 20.1 |
| Population growth 2006-2011 |  |  |  |  |  |  |  |
|  |  |  |  |  | Males | Females | Total |
| Total |  |  |  |  | -81 | -39 | -120 |
| Average ann |  |  |  |  | -16 | -8 | -24 |
| Percentage | ence \% |  |  |  | -10.6 | -5.5 | -8.1 |
| Average ann | rowth rate |  |  |  | -2.2 | -1.1 | -1.7 |

## Lulunga

Population trend: 1956-2011


Population pyramid by five-year age group and sex, 2006 and 2011


| Lulunga |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2006 |  |  |  | 2011 |  |  |  |
| Age | Males | Females | Total | Age | Males | Females | Total |
| Population by 5-year age groups and sex |  |  |  |  |  |  |  |
| 0-4 | 65 | 75 | 140 | 0-4 | 78 | 71 | 149 |
| 5-9 | 91 | 66 | 157 | 5-9 | 76 | 68 | 144 |
| 10-14 | 64 | 47 | 111 | 10-14 | 58 | 47 | 105 |
| 15-19 | 53 | 39 | 92 | 15-19 | 48 | 37 | 85 |
| 20-24 | 55 | 32 | 87 | 20-24 | 41 | 41 | 82 |
| 25-29 | 30 | 34 | 64 | 25-29 | 31 | 33 | 64 |
| 30-34 | 42 | 38 | 80 | 30-34 | 40 | 36 | 76 |
| 35-39 | 35 | 20 | 55 | 35-39 | 39 | 29 | 68 |
| 40-44 | 31 | 18 | 49 | 40-44 | 38 | 21 | 59 |
| 45-49 | 19 | 30 | 49 | 45-49 | 21 | 17 | 38 |
| 50-54 | 22 | 19 | 41 | 50-54 | 16 | 24 | 40 |
| 55-59 | 17 | 19 | 36 | 55-59 | 21 | 18 | 39 |
| 60-64 | 16 | 19 | 35 | 60-64 | 19 | 19 | 38 |
| 65-69 | 21 | 17 | 38 | 65-69 | 11 | 12 | 23 |
| 70-74 | 22 | 6 | 28 | 70-74 | 13 | 10 | 23 |
| 75+ | 2 | 10 | 12 | 75+ | 11 | 11 | 22 |
| Total | 586 | 489 | 1,075 | Total | 561 | 494 | 1,055 |
| Population by broad age groups (in numbers) |  |  |  |  |  |  |  |
| 0-14 | 220 | 188 | 408 | 0-14 | 212 | 186 | 398 |
| 15-24 | 108 | 71 | 179 | 15-24 | 89 | 78 | 167 |
| 25-59 | 196 | 178 | 374 | 25-59 | 206 | 178 | 384 |
| 25-64 | 212 | 197 | 409 | 25-64 | 225 | 197 | 422 |
| 60+ | 61 | 52 | 113 | 60+ | 54 | 52 | 106 |
| 65+ | 45 | 33 | 78 | 65+ | 35 | 33 | 68 |
| Population by broad age groups (in percentages) |  |  |  |  |  |  |  |
| 0-14 | 38 | 38 | 38 | 0-14 | 38 | 38 | 38 |
| 15-24 | 18 | 15 | 17 | 15-24 | 16 | 16 | 16 |
| 25-59 | 34 | 36 | 35 | 25-59 | 37 | 36 | 36 |
| 25-64 | 36 | 40 | 38 | 25-64 | 40 | 40 | 40 |
| 60+ | 10 | 11 | 11 | 60+ | 10 | 11 | 10 |
| 65+ | 8 | 7 | 7 | 65+ | 6 | 7 | 6 |
| Age dependency ratio |  |  |  |  |  |  |  |
| 15-59 |  |  | 94 | 15-59 |  |  | 91 |
| 15-64 |  |  | 83 | 15-64 |  |  | 79 |
| Sex ratio (males per 100 females) |  |  |  |  |  |  |  |
|  |  |  | 120 |  |  |  | 114 |
| Median age (years) |  |  |  |  |  |  |  |
| Total | 21.8 | 22.8 | 22.2 | Total | 22.6 | 23.0 | 22.7 |
| Population growth 2006-2011 |  |  |  |  |  |  |  |
|  |  |  |  |  | Males | Females | Total |
| Total |  |  |  |  | -25 | 5 | -20 |
| Average ann |  |  |  |  | -2 | 1 | -4 |
| Percentage | ence \% |  |  |  | -4.3 | 1.0 | -1.9 |
| Average ann | rowth rate |  |  |  | -0.9 | 0.2 | -0.4 |

Mu'omu'a

Population trend: 1956-2011


Population pyramid by five-year age group and sex, 2006 and 2011


| Mu'omu'a |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2006 |  |  |  | 2011 |  |  |  |
| Age | Males | Females | Total | Age | Males | Females | Total |
| Population by 5-year age groups and sex |  |  |  |  |  |  |  |
| 0-4 | 50 | 31 | 81 | 0-4 | 52 | 42 | 94 |
| 5-9 | 46 | 49 | 95 | 5-9 | 42 | 34 | 76 |
| 10-14 | 26 | 38 | 64 | 10-14 | 31 | 42 | 73 |
| 15-19 | 47 | 23 | 70 | 15-19 | 20 | 14 | 34 |
| 20-24 | 16 | 24 | 40 | 20-24 | 26 | 24 | 50 |
| 25-29 | 21 | 22 | 43 | 25-29 | 15 | 23 | 38 |
| 30-34 | 18 | 20 | 38 | 30-34 | 26 | 25 | 51 |
| 35-39 | 19 | 18 | 37 | 35-39 | 21 | 12 | 33 |
| 40-44 | 14 | 15 | 29 | 40-44 | 20 | 16 | 36 |
| 45-49 | 9 | 13 | 22 | 45-49 | 10 | 11 | 21 |
| 50-54 | 11 | 19 | 30 | 50-54 | 9 | 12 | 21 |
| 55-59 | 12 | 9 | 21 | 55-59 | 12 | 14 | 26 |
| 60-64 | 11 | 5 | 16 | 60-64 | 6 | 6 | 12 |
| 65-69 | 8 | 7 | 15 | 65-69 | 10 | 7 | 17 |
| 70-74 | 3 | 2 | 5 | 70-74 | 10 | 4 | 14 |
| 75+ | 10 | 13 | 23 | 75+ | 6 | 7 | 13 |
| Total | 321 | 309 | 630 | Total | 316 | 293 | 609 |
| Population by broad age groups (in numbers) |  |  |  |  |  |  |  |
| 0-14 | 122 | 118 | 240 | 0-14 | 125 | 118 | 243 |
| 15-24 | 63 | 47 | 110 | 15-24 | 46 | 38 | 84 |
| 25-59 | 104 | 116 | 220 | 25-59 | 113 | 113 | 226 |
| 25-64 | 115 | 121 | 236 | 25-64 | 119 | 119 | 238 |
| 60+ | 32 | 27 | 59 | 60+ | 32 | 24 | 56 |
| 65+ | 21 | 22 | 43 | 65+ | 26 | 18 | 44 |
| Population by broad age groups (in percentages) |  |  |  |  |  |  |  |
| 0-14 | 38 | 38 | 38 | 0-14 | 40 | 40 | 40 |
| 15-24 | 20 | 15 | 17 | 15-24 | 15 | 13 | 14 |
| 25-59 | 32 | 38 | 35 | 25-59 | 36 | 39 | 37 |
| 25-64 | 36 | 39 | 38 | 25-64 | 38 | 41 | 39 |
| 60+ | 10 | 9 | 9 | 60+ | 10 | 8 | 9 |
| 65+ | 7 | 7 | 7 | 65+ | 8 | 6 | 7 |
| Age dependency ratio |  |  |  |  |  |  |  |
| 15-59 |  |  | 91 | 15-59 |  |  | 96 |
| 15-64 |  |  | 82 | 15-64 |  |  | 89 |
| Sex ratio (males per 100 females) |  |  |  |  |  |  |  |
|  |  |  | 104 |  |  |  | 108 |
| Median age (years) |  |  |  |  |  |  |  |
| Total | 19.1 | 22.8 | 20.6 | Total | 22.6 | 23.1 | 22.8 |
| Population growth 2006-2011 |  |  |  |  |  |  |  |
|  |  |  |  |  | Males | Females | Total |
| Total |  |  |  |  | -5 | -16 | -21 |
| Average an |  |  |  |  | -1 | -3 | -4 |
| Percentage | nce \% |  |  |  | -1.6 | -5.2 | -3.3 |
| Average an | owth ra |  |  |  | -0.3 | -1.1 | -0.7 |

Ha'ano

Population trend: 1956-2011


Population pyramid by five-year age group and sex, 2006 and 2011


| Ha'ano |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2006 |  |  |  | 2011 |  |  |  |
| Age | Males | Females | Total | Age | Males | Females | Total |
| Population by 5-year age groups and sex |  |  |  |  |  |  |  |
| 0-4 | 40 | 34 | 74 | 0-4 | 34 | 34 | 68 |
| 5-9 | 42 | 46 | 88 | 5-9 | 33 | 40 | 73 |
| 10-14 | 44 | 30 | 74 | 10-14 | 33 | 29 | 62 |
| 15-19 | 32 | 22 | 54 | 15-19 | 23 | 22 | 45 |
| 20-24 | 20 | 18 | 38 | 20-24 | 19 | 14 | 33 |
| 25-29 | 15 | 19 | 34 | 25-29 | 8 | 15 | 23 |
| 30-34 | 25 | 26 | 51 | 30-34 | 13 | 14 | 27 |
| 35-39 | 17 | 18 | 35 | 35-39 | 23 | 16 | 39 |
| 40-44 | 17 | 17 | 34 | 40-44 | 11 | 16 | 27 |
| 45-49 | 7 | 17 | 24 | 45-49 | 11 | 9 | 20 |
| 50-54 | 10 | 8 | 18 | 50-54 | 9 | 10 | 19 |
| 55-59 | 6 | 12 | 18 | 55-59 | 8 | 11 | 19 |
| 60-64 | 12 | 19 | 31 | 60-64 | 8 | 5 | 13 |
| 65-69 | 6 | 8 | 14 | 65-69 | 8 | 12 | 20 |
| 70-74 | 4 | 6 | 10 | 70-74 | 4 | 5 | 9 |
| 75+ | 8 | 12 | 20 | 75+ | 5 | 9 | 14 |
| Total | 307 | 312 | 619 | Total | 250 | 261 | 511 |
| Population by broad age groups (in numbers) |  |  |  |  |  |  |  |
| 0-14 | 127 | 110 | 237 | 0-14 | 100 | 103 | 203 |
| 15-24 | 52 | 40 | 92 | 15-24 | 42 | 36 | 78 |
| 25-59 | 98 | 117 | 215 | 25-59 | 83 | 91 | 174 |
| 25-64 | 110 | 136 | 246 | 25-64 | 91 | 96 | 187 |
| 60+ | 30 | 45 | 75 | 60+ | 25 | 31 | 56 |
| 65+ | 18 | 26 | 44 | 65+ | 17 | 26 | 43 |
| Population by broad age groups (in percentages) |  |  |  |  |  |  |  |
| 0-14 | 41 | 35 | 38 | 0-14 | 40 | 39 | 40 |
| 15-24 | 17 | 13 | 15 | 15-24 | 17 | 14 | 15 |
| 25-59 | 32 | 38 | 35 | 25-59 | 33 | 35 | 34 |
| 25-64 | 36 | 44 | 40 | 25-64 | 36 | 37 | 37 |
| 60+ | 10 | 14 | 12 | 60+ | 10 | 12 | 11 |
| 65+ | 6 | 8 | 7 | 65+ | 7 | 10 | 8 |
| Age dependency ratio |  |  |  |  |  |  |  |
| 15-59 |  |  | 102 | 15-59 |  |  | 103 |
| 15-64 |  |  | 83 | 15-64 |  |  | 93 |
| Sex ratio (males per 100 females) |  |  |  |  |  |  |  |
|  |  |  | 98 |  |  |  | 96 |
| Median age (years) |  |  |  |  |  |  |  |
| Total | 19.2 | 26.7 | 22.5 | Total | 20.7 | 22.1 | 21.2 |
| Population growth 2006-2011 |  |  |  |  |  |  |  |
|  |  |  |  |  | Males | Females | Total |
| Total |  |  |  |  | -57 | -51 | -108 |
| Average an |  |  |  |  | -11 | -10 | -22 |
| Percentage | ence \% |  |  |  | -18.6 | -16.3 | -17.4 |
| Average an | rowth rate |  |  |  | -4.1 | -3.6 | -3.8 |

## Uiha

Population trend: 1956-2011


Population pyramid by five-year age group and sex, 2006 and 2011


| Uiha |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2006 |  |  |  | 2011 |  |  |  |
| Age | Males | Females | Total | Age | Males | Females | Total |
| Population by 5-year age groups and sex |  |  |  |  |  |  |  |
| 0-4 | 55 | 36 | 92 | 0-4 | 48 | 37 | 85 |
| 5-9 | 54 | 52 | 107 | 5-9 | 54 | 38 | 92 |
| 10-14 | 44 | 52 | 97 | 10-14 | 34 | 29 | 63 |
| 15-19 | 50 | 29 | 80 | 15-19 | 32 | 26 | 58 |
| 20-24 | 41 | 29 | 71 | 20-24 | 28 | 14 | 42 |
| 25-29 | 29 | 23 | 52 | 25-29 | 26 | 22 | 48 |
| 30-34 | 17 | 25 | 42 | 30-34 | 22 | 16 | 38 |
| 35-39 | 26 | 24 | 50 | 35-39 | 13 | 20 | 33 |
| 40-44 | 19 | 16 | 35 | 40-44 | 19 | 14 | 33 |
| 45-49 | 13 | 12 | 25 | 45-49 | 18 | 15 | 33 |
| 50-54 | 18 | 14 | 32 | 50-54 | 13 | 16 | 29 |
| 55-59 | 8 | 18 | 26 | 55-59 | 13 | 11 | 24 |
| 60-64 | 17 | 14 | 31 | 60-64 | 10 | 15 | 25 |
| 65-69 | 9 | 12 | 21 | 65-69 | 12 | 14 | 26 |
| 70-74 | 6 | 9 | 15 | 70-74 | 12 | 8 | 20 |
| 75+ | 11 | 12 | 23 | 75+ | 7 | 16 | 23 |
| Total | 420 | 380 | 800 | Total | 361 | 311 | 672 |
| Population by broad age groups (in numbers) |  |  |  |  |  |  |  |
| 0-14 | 154 | 141 | 295 | 0-14 | 136 | 104 | 240 |
| 15-24 | 92 | 58 | 150 | 15-24 | 60 | 40 | 100 |
| 25-59 | 131 | 133 | 264 | 25-59 | 124 | 114 | 238 |
| 25-64 | 148 | 147 | 295 | 25-64 | 134 | 129 | 263 |
| 60+ | 43 | 47 | 91 | 60+ | 41 | 53 | 94 |
| 65+ | 26 | 33 | 59 | 65+ | 31 | 38 | 69 |
| Population by broad age groups (in percentages) |  |  |  |  |  |  |  |
| 0-14 | 37 | 37 | 37 | 0-14 | 38 | 33 | 36 |
| 15-24 | 22 | 15 | 19 | 15-24 | 17 | 13 | 15 |
| 25-59 | 31 | 35 | 33 | 25-59 | 34 | 37 | 35 |
| 25-64 | 35 | 39 | 37 | 25-64 | 37 | 41 | 39 |
| 60+ | 10 | 12 | 11 | 60+ | 11 | 17 | 14 |
| 65+ | 6 | 9 | 7 | 65+ | 9 | 12 | 10 |
| Age dependency ratio |  |  |  |  |  |  |  |
| 15-59 |  |  | 93 | 15-59 |  |  | 99 |
| 15-64 |  |  | 80 | 15-64 |  |  | 85 |
| Sex ratio (males per 100 females) |  |  |  |  |  |  |  |
|  |  |  | 111 |  |  |  | 116 |
| Median age (years) |  |  |  |  |  |  |  |
| Total | 20.7 | 23.4 | 21.8 | Total | 22.3 | 27.7 | 24.6 |
| Population growth 2006-2011 |  |  |  |  |  |  |  |
|  |  |  |  |  | Males | Females | Total |
| Total |  |  |  |  | -59 | -69 | -128 |
| Average ann |  |  |  |  | -12 | -14 | -26 |
| Percentage | ence \% |  |  |  | -14.0 | -18.2 | -16.0 |
| Average ann | rowth rat |  |  |  | -3.0 | -4.0 | -3.5 |

'Eua Motu'a

Population trend: 1956-2011


Population pyramid by five-year age group and sex, 2006 and 2011


| Eua Motu'a |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2006 |  |  |  | 2011 |  |  |  |
| Age | Males | Females | Total | Age | Males | Females | Total |
| Population by 5-year age groups and sex |  |  |  |  |  |  |  |
| 0-4 | 221 | 196 | 418 | 0-4 | 185 | 195 | 380 |
| 5-9 | 213 | 176 | 390 | 5-9 | 186 | 187 | 373 |
| 10-14 | 189 | 151 | 340 | 10-14 | 176 | 159 | 335 |
| 15-19 | 171 | 157 | 328 | 15-19 | 153 | 124 | 277 |
| 20-24 | 119 | 104 | 223 | 20-24 | 95 | 100 | 195 |
| 25-29 | 99 | 91 | 190 | 25-29 | 77 | 98 | 175 |
| 30-34 | 80 | 81 | 161 | 30-34 | 98 | 96 | 194 |
| 35-39 | 100 | 100 | 200 | 35-39 | 78 | 81 | 159 |
| 40-44 | 85 | 62 | 147 | 40-44 | 106 | 81 | 187 |
| 45-49 | 55 | 59 | 114 | 45-49 | 76 | 62 | 138 |
| 50-54 | 55 | 52 | 107 | 50-54 | 42 | 57 | 99 |
| 55-59 | 52 | 46 | 98 | 55-59 | 54 | 49 | 103 |
| 60-64 | 41 | 42 | 83 | 60-64 | 40 | 32 | 72 |
| 65-69 | 42 | 24 | 66 | 65-69 | 24 | 36 | 60 |
| 70-74 | 16 | 16 | 32 | 70-74 | 31 | 22 | 53 |
| 75+ | 21 | 29 | 50 | 75+ | 25 | 27 | 52 |
| Total | 1,562 | 1,387 | 2,949 | Total | 1,446 | 1,406 | 2,852 |
| Population by broad age groups (in numbers) |  |  |  |  |  |  |  |
| 0-14 | 624 | 523 | 1,148 | 0-14 | 547 | 541 | 1,088 |
| 15-24 | 291 | 261 | 552 | 15-24 | 248 | 224 | 472 |
| 25-59 | 527 | 491 | 1,018 | 25-59 | 531 | 524 | 1,055 |
| 25-64 | 568 | 533 | 1,101 | 25-64 | 571 | 556 | 1,127 |
| 60+ | 120 | 111 | 231 | 60+ | 120 | 117 | 237 |
| 65+ | 79 | 69 | 148 | 65+ | 80 | 85 | 165 |
| Population by broad age groups (in percentages) |  |  |  |  |  |  |  |
| 0-14 | 40 | 38 | 39 | 0-14 | 38 | 38 | 38 |
| 15-24 | 19 | 19 | 19 | 15-24 | 17 | 16 | 17 |
| 25-59 | 34 | 35 | 35 | 25-59 | 37 | 37 | 37 |
| 25-64 | 36 | 38 | 37 | 25-64 | 39 | 40 | 40 |
| 60+ | 8 | 8 | 8 | 60+ | 8 | 8 | 8 |
| 65+ | 5 | 5 | 5 | $65+$ | 6 | 6 | 6 |
| Age dependency ratio |  |  |  |  |  |  |  |
| 15-59 |  |  | 88 | 15-59 |  |  | 87 |
| 15-64 |  |  | 78 | 15-64 |  |  | 78 |
| Sex ratio (males per 100 females) |  |  |  |  |  |  |  |
|  |  |  | 113 |  |  |  | 103 |
| Median age (years) |  |  |  |  |  |  |  |
| Total | 19.6 | 20.6 | 20.0 | Total | 21.2 | 21.9 | 21.6 |
| Population growth 2006-2011 |  |  |  |  |  |  |  |
|  |  |  |  |  | Males | Females | Total |
| Total |  |  |  |  | -116 | 19 | -97 |
| Average ann |  |  |  |  | -23 | 4 | -19 |
| Percentage | ence \% |  |  |  | -7.4 | 1.4 | -3.3 |
| Average ann | owth rate |  |  |  | -1.5 | 0.3 | -0.7 |

## ‘Eua Fo'ou

Population trend: 1956-2011


Population pyramid by five-year age group and sex, 2006 and 2011


| Eua Fo'ou |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2006 |  |  |  | 2011 |  |  |  |
| Age | Males | Females | Total | Age | Males | Females | Total |
| Population by 5-year age groups and sex |  |  |  |  |  |  |  |
| 0-4 | 173 | 167 | 340 | 0-4 | 144 | 126 | 270 |
| 5-9 | 167 | 157 | 324 | 5-9 | 144 | 171 | 315 |
| 10-14 | 144 | 137 | 281 | 10-14 | 149 | 128 | 277 |
| 15-19 | 105 | 113 | 218 | 15-19 | 119 | 109 | 228 |
| 20-24 | 81 | 75 | 156 | 20-24 | 78 | 71 | 149 |
| 25-29 | 69 | 72 | 141 | 25-29 | 63 | 85 | 148 |
| 30-34 | 62 | 54 | 116 | 30-34 | 57 | 70 | 127 |
| 35-39 | 70 | 73 | 143 | 35-39 | 47 | 43 | 90 |
| 40-44 | 53 | 65 | 118 | 40-44 | 54 | 62 | 116 |
| 45-49 | 55 | 57 | 112 | 45-49 | 42 | 52 | 94 |
| 50-54 | 36 | 36 | 72 | 50-54 | 45 | 48 | 93 |
| 55-59 | 33 | 39 | 72 | 55-59 | 35 | 33 | 68 |
| 60-64 | 24 | 15 | 39 | 60-64 | 32 | 31 | 63 |
| 65-69 | 24 | 18 | 42 | 65-69 | 21 | 14 | 35 |
| 70-74 | 14 | 14 | 28 | 70-74 | 16 | 19 | 35 |
| 75+ | 29 | 25 | 54 | 75+ | 22 | 34 | 56 |
| Total | 1,140 | 1,117 | 2,257 | Total | 1,068 | 1,096 | 2,164 |
| Population by broad age groups (in numbers) |  |  |  |  |  |  |  |
| 0-14 | 484 | 461 | 945 | 0-14 | 437 | 425 | 862 |
| 15-24 | 186 | 188 | 374 | 15-24 | 197 | 180 | 377 |
| 25-59 | 378 | 396 | 774 | 25-59 | 343 | 393 | 736 |
| 25-64 | 402 | 411 | 813 | 25-64 | 375 | 424 | 799 |
| 60+ | 91 | 72 | 163 | 60+ | 91 | 98 | 189 |
| 65+ | 67 | 57 | 124 | 65+ | 59 | 67 | 126 |
| Population by broad age groups (in percentages) |  |  |  |  |  |  |  |
| 0-14 | 42 | 41 | 42 | 0-14 | 41 | 39 | 40 |
| 15-24 | 16 | 17 | 17 | 15-24 | 18 | 16 | 17 |
| 25-59 | 33 | 35 | 34 | 25-59 | 32 | 36 | 34 |
| 25-64 | 35 | 37 | 36 | 25-64 | 35 | 39 | 37 |
| 60+ | 8 | 6 | 7 | 60+ | 9 | 9 | 9 |
| 65+ | 6 | 5 | 5 | 65+ | 6 | 6 | 6 |
| Age dependency ratio |  |  |  |  |  |  |  |
| 15-59 |  |  | 97 | 15-59 |  |  | 94 |
| 15-64 |  |  | 90 | 15-64 |  |  | 84 |
| Sex ratio (males per 100 females) |  |  |  |  |  |  |  |
|  |  |  | 102 |  |  |  | 97 |
| Median age (years) |  |  |  |  |  |  |  |
| Total | 19.1 | 19.3 | 19.2 | Total | 19.1 | 21.0 | 19.8 |
| Population growth 2006-2011 |  |  |  |  |  |  |  |
|  |  |  |  |  | Males | Females | Total |
| Total |  |  |  |  | -72 | -21 | -93 |
| Average ann |  |  |  |  | -14 | -4 | -19 |
| Percentage | nce \% |  |  |  | -6.3 | -1.9 | -4.1 |
| Average an | owth rat |  |  |  | -1.3 | -0.4 | -0.8 |

## Niuatoputapu

Population trend: 1956-2011


Population pyramid by five-year age group and sex, 2006 and 2011
2006 (shaded area), 2011 (outlined)


| Niuatoputapu |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2006 |  |  |  | 2011 |  |  |  |
| Age | Males | Females | Total | Age | Males | Females | Total |
| Population by 5-year age groups and sex |  |  |  |  |  |  |  |
| 0-4 | 43 | 61 | 104 | 0-4 | 39 | 39 | 78 |
| 5-9 | 64 | 59 | 123 | 5-9 | 43 | 41 | 84 |
| 10-14 | 94 | 59 | 153 | 10-14 | 50 | 40 | 90 |
| 15-19 | 47 | 51 | 98 | 15-19 | 50 | 24 | 74 |
| 20-24 | 34 | 32 | 66 | 20-24 | 18 | 26 | 44 |
| 25-29 | 36 | 31 | 67 | 25-29 | 19 | 20 | 39 |
| 30-34 | 17 | 29 | 46 | 30-34 | 20 | 26 | 46 |
| 35-39 | 32 | 30 | 62 | 35-39 | 12 | 18 | 30 |
| 40-44 | 27 | 25 | 52 | 40-44 | 15 | 24 | 39 |
| 45-49 | 27 | 24 | 51 | 45-49 | 22 | 28 | 50 |
| 50-54 | 22 | 26 | 48 | 50-54 | 23 | 19 | 42 |
| 55-59 | 23 | 12 | 35 | 55-59 | 16 | 26 | 42 |
| 60-64 | 26 | 16 | 42 | 60-64 | 25 | 7 | 32 |
| 65-69 | 18 | 16 | 34 | 65-69 | 17 | 11 | 28 |
| 70-74 | 8 | 10 | 18 | 70-74 | 10 | 11 | 21 |
| 75+ | 7 | 11 | 18 | 75+ | 11 | 9 | 20 |
| Total | 526 | 493 | 1,019 | Total | 390 | 369 | 759 |
| Population by broad age groups (in numbers) |  |  |  |  |  |  |  |
| 0-14 | 201 | 179 | 381 | 0-14 | 132 | 120 | 252 |
| 15-24 | 81 | 83 | 164 | 15-24 | 68 | 50 | 118 |
| 25-59 | 184 | 177 | 362 | 25-59 | 127 | 161 | 288 |
| 25-64 | 210 | 193 | 404 | 25-64 | 152 | 168 | 320 |
| 60+ | 59 | 53 | 112 | 60+ | 63 | 38 | 101 |
| 65+ | 33 | 37 | 70 | 65+ | 38 | 31 | 69 |
| Population by broad age groups (in percentages) |  |  |  |  |  |  |  |
| 0-14 | 38 | 36 | 37 | 0-14 | 34 | 33 | 33 |
| 15-24 | 15 | 17 | 16 | 15-24 | 17 | 14 | 16 |
| 25-59 | 35 | 36 | 35 | 25-59 | 33 | 44 | 38 |
| 25-64 | 40 | 39 | 40 | 25-64 | 39 | 46 | 42 |
| 60+ | 11 | 11 | 11 | 60+ | 16 | 10 | 13 |
| 65+ | 6 | 8 | 7 | 65+ | 10 | 8 | 9 |
| Age dependency ratio |  |  |  |  |  |  |  |
| 15-59 |  |  | 94 | 15-59 |  |  | 87 |
| 15-64 |  |  | 79 | 15-64 |  |  | 73 |
| Sex ratio (males per 100 females) |  |  |  |  |  |  |  |
|  |  |  | 107 |  |  |  | 106 |
| Median age (years) |  |  |  |  |  |  |  |
| Total | 22.2 | 22.6 | 22.3 | Total | 23.8 | 28.8 | 26.3 |
| Population growth 2006-2011 |  |  |  |  |  |  |  |
|  |  |  |  |  | Males | Females | Total |
| Total |  |  |  |  | -136 | -124 | -260 |
| Average an |  |  |  |  | -27 | -25 | -52 |
| Percentage | ence \% |  |  |  | -25.9 | -25.2 | -25.5 |
| Average an | rowth rate |  |  |  | -6.0 | -5.8 | -5.9 |

Niuafo'ou

Population trend: 1956-2011


Population pyramid by five-year age group and sex, 2006 and 2011


| Niuafo'ou |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2006 |  |  |  | 2011 |  |  |  |
| Age | Males | Females | Total | Age | Males | Females | Total |
| Population by 5-year age groups and sex |  |  |  |  |  |  |  |
| 0-4 | 45 | 30 | 75 | 0-4 | 25 | 28 | 53 |
| 5-9 | 51 | 42 | 93 | 5-9 | 40 | 29 | 69 |
| 10-14 | 49 | 42 | 91 | 10-14 | 35 | 31 | 66 |
| 15-19 | 32 | 31 | 63 | 15-19 | 27 | 22 | 49 |
| 20-24 | 22 | 16 | 38 | 20-24 | 13 | 18 | 31 |
| 25-29 | 18 | 20 | 38 | 25-29 | 14 | 16 | 30 |
| 30-34 | 23 | 18 | 41 | 30-34 | 15 | 11 | 26 |
| 35-39 | 21 | 16 | 37 | 35-39 | 17 | 18 | 35 |
| 40-44 | 30 | 15 | 45 | 40-44 | 23 | 14 | 37 |
| 45-49 | 14 | 10 | 24 | 45-49 | 18 | 15 | 33 |
| 50-54 | 7 | 10 | 17 | 50-54 | 12 | 9 | 21 |
| 55-59 | 12 | 9 | 21 | 55-59 | 8 | 10 | 18 |
| 60-64 | 8 | 7 | 15 | 60-64 | 6 | 5 | 11 |
| 65-69 | 15 | 7 | 22 | 65-69 | 7 | 7 | 14 |
| 70-74 | 6 | 5 | 11 | 70-74 | 10 | 6 | 16 |
| 75+ | 10 | 4 | 14 | 75+ | 7 | 7 | 14 |
| Total | 364 | 282 | 646 | Total | 277 | 246 | 523 |
| Population by broad age groups (in numbers) |  |  |  |  |  |  |  |
| 0-14 | 145 | 114 | 259 | 0-14 | 100 | 88 | 188 |
| 15-24 | 54 | 47 | 101 | 15-24 | 40 | 40 | 80 |
| 25-59 | 125 | 98 | 223 | 25-59 | 107 | 93 | 200 |
| 25-64 | 133 | 105 | 238 | 25-64 | 113 | 98 | 211 |
| 60+ | 39 | 23 | 62 | 60+ | 30 | 25 | 55 |
| 65+ | 31 | 16 | 47 | 65+ | 24 | 20 | 44 |
| Population by broad age groups (in percentages) |  |  |  |  |  |  |  |
| 0-14 | 40 | 40 | 40 | 0-14 | 36 | 36 | 36 |
| 15-24 | 15 | 17 | 16 | 15-24 | 14 | 16 | 15 |
| 25-59 | 34 | 35 | 35 | 25-59 | 39 | 38 | 38 |
| 25-64 | 37 | 37 | 37 | 25-64 | 41 | 40 | 40 |
| 60+ | 11 | 8 | 10 | 60+ | 11 | 10 | 11 |
| 65+ | 9 | 6 | 7 | 65+ | 9 | 8 | 8 |
| Age dependency ratio |  |  |  |  |  |  |  |
| 15-59 |  |  | 99 | 15-59 |  |  | 87 |
| 15-64 |  |  | 90 | 15-64 |  |  | 80 |
| Sex ratio (males per 100 females) |  |  |  |  |  |  |  |
|  |  |  | 129 |  |  |  | 113 |
| Median age (years) |  |  |  |  |  |  |  |
| Total | 21.1 | 19.4 | 20.1 | Total | 24.6 | 23.8 | 24.0 |
| Population growth 2006-2011 |  |  |  |  |  |  |  |
|  |  |  |  |  | Males | Females | Total |
| Total |  |  |  |  | -87 | -36 | -123 |
| Average an |  |  |  |  | -17 | -7 | -25 |
| Percentage | ence \% |  |  |  | -23.9 | -12.8 | -19.0 |
| Average an | rowth rate |  |  |  | -5.5 | -2.7 | -4.2 |


[^0]:    $+=$ singulate mean age at marriage
    $++=$ probability of dying between exact age 1 and exact age 5

    * = Unemployed include people that did not work, but did not look for work because they believed that no work was available, or because of poor weather conditions or could not afford transportation costs.

[^1]:    ASFR: number of births per 1,000 women by age group

[^2]:    ${ }^{1}$ the probability of dying between one and five years of age
    ${ }^{2}$ the probability of dying between birth and five years of age

[^3]:    ${ }^{1}$ United Nations 1983. Manual X, indirect techniques for demographic estimation. New York: United Nations.

[^4]:    * Unemployed include people that did not work, but did not look for work because they believed that no work was available, or because of poor weather conditions or because they could not afford transportation costs.

[^5]:    *= using procedure CEBCS of MORTPAK 4.1

[^6]:    *= using procedure CEBCS of MORTPAK 4.1

[^7]:    * 15 persons with age-not stated were distributed proportionally by known ages in 2011. This may cause some basic tables to differ slightly from numbers shown here.

