TUVALU POPULATION & HOUSING MINI-CENSUS 2017 REPORT

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Central Statistics Division of the Government of Tuvalu.
Funafuti, Tuvalu.

Cover picture: Joe Hitchcock

FOREWORD

This report presents the results of the Tuvalu Population and Housing Mini-Census 2017. The Census provides a snapshot of the country at the specified night of 12th November, 2017.

It is the first census to be held in Tuvalu within a 5 year period at most following to a 10 year time-frame since the country's independence in 1978. It is called a 'Mini-Census' for it does not cover all of the usual process requiring with censuses proceedings.

The report however is formulated purposely for key stakeholders, and in particular the Government of Tuvalu to access and uses at any time for lots and lots of purposes implications. And as usual, the report produce the analyses of the resident population, the households characteristics and finally the demographic analyses.

I acknowledge the support of SPC (known as the Pacific Community) to the Tuvalu Central Statistics Division (TCSD) technically with the development of electronic questionnaire using the survey solutions software, training for the main fieldwork, main fieldwork collections of the census using the CAPI (Computer Assisted with Personal Interview) technology, data processing and tabulations of the census tables. Lots of thanks goes to Dr. Michael Levin, a Statistician that was recruited by SPC to assist the TCSD in compiling this census report. It is however acknowledged herewith that the Fertility and Mortality chapters of this report was originally composed and authored by Dr. Levin. I have to thank Dr. Alison Culpin, a Demographer analyst of SPC for helping the TCSD in clarifying and simplifying certain demographic analyses of the report.

This census is estimated to cost at AU$0.15 million, a reduction from AU$0.5 million usual costing. I wish to acknowledge the contribution of AusAID in Suva for this census which is estimated to 40% of the total cost. The majority of the finances was funded by the Government of Tuvalu (GoT).

And not forgetting the people of Tuvalu, thank you for all of your supports provided the assistance of respective Island Kaupule in accepting the census collections to facilitate at all houses in all the islands, thank you. Finally, I am greatly grateful to all my staff and contract workers for their effort and commitment made for this census. All the assistances that were acknowledged above were contributing in making the 2017 Population and Housing Mini-Census possible and success.

Fafetai kae fakamaalo mo galuega gali,

Ms. Grace Alapati
Government Statistician

KEY INDICATORS

	National	Funafuti	Outer Islands
Total population by region of enumeration	**10,645**	**6,716**	**3,929**
Males	5,486	3,517	1,969
Females	5,159	3,199	1,960
Resident population by region of residence	**10,507**	**6,320**	**4,187**
Males	5,403	3,307	2,096
Females	5,104	3,013	2,091
Resident population by home islands and islands of usual residence	**Same Island**	**Funafuti**	**Other Islands**
Nanumea **(1,603)**	475	1,069	59
Nanumaga **(1,229)**	444	722	63
Niutao **(1,402)**	541	780	81
Nui **(1,034)**	553	448	33
Vaitupu **(1,860)**	898	915	47
Nukufetau **(1,322)**	553	730	39
Funafuti **(1,340)**		1,309	31
Nukulaelae **(568)**	283	253	32
Niulakita **(31)**	18	12	1
Other **(118)**		82	36
Resident population of Funafuti by home islands			
Nanumea		1,069	
Nanumaga		722	
Niutao		780	
Nui		448	
Vaitupu		915	
Nukufetau		730	
Funafuti		1,309	
Nukulaelae		253	
Niulakita		12	
Others		82	
Proportion of the resident population by region of residence (%)	100	60.2	39.8
Proportion of the resident population by region of enumeration (%)	100	63.1	36.9
Median age (years) of resident population by region of residence	25.1		
Males	24.4		
Females	25.8		
Resident population composition by age groups and region of residence			
Population < 15 years old	3,364	2,010	1,354
Population 15-59 years old	6,149	3,827	2,322
Population 60+ years old	994	483	511

	National	Funafuti	Outer Islands
Resident population (%) by region of residence			
Population < 15 years old	32.0	31.8	32.3
Population 15-59 years old	58.5	60.6	55.5
Population 60+ years old	9.5	7.6	12.2
Sex ratio by region of residence	105.9	109.8	100.2
Dependency ratio by region of residence	70.9	65.1	80.3
Average annual growth rate (2012-2017) by region of residence			
Total population by region of enumeration (%)	-0.3	1.8	-3.0
Resident population by region of residence (%)	-0.3	3.0	-4.3
Population density (persons per sq km)			
Total population by region of enumeration	416	2,399	172
Resident population by region of residence	410	2,257	184
Resident population by religious denominations and region of residence			
Ekalesia Kelisiano Tuvalu	9,023	5,108	3,915
Seventh Day Adventist	266	219	47
Jehova's Witness	155	128	27
Bahai	157	99	58
Brethren	296	238	58
Assemblies of God	155	138	17
Catholic	53	39	14
Latter Day Saints	92	84	8
None	26	25	1
Refused	14	13	1
Other	270	229	41
Resident population by ethnic origin			
Tuvaluan	10,193	6,146	4,047
Tuvaluan/I-Kiribati	166	80	86
Tuvaluan/Other	83	53	30
Other	65	41	24
Number of households by region	**1,688**	**874**	**814**
Number of households by island			
Nanumea	108		
Nanumaga	96		
Niutao	130		
Nui	99		
Vaitupu	196		
Nukufetau	116		
Funafuti	874		
Nukulaelae	57		
Niulakita	12		

	National	Funafuti	Outer Islands
Number of households in Funafuti by home island			
Nanumea		141	
Nanumaga		86	
Niutao		95	
Nui		67	
Vaitupu		119	
Nukufetau		105	
Funafuti		191	
Nukulaelae		34	
Niulakita		2	
Others		34	
Average household size			
Resident population	6.0	7.4	4.5
Resident population age 0-14 years old	2.1	2.4	1.7
Resident population age 15-59 years old	3.8	4.5	3.0
Resident population age 60+ years old	0.6	0.6	0.7
Educational characteristics			
Gross enrolment ratio in Pre-school education (%)	100.6	100.3	101.1
Net enrolment ratio in Pre-school education (%)	96.6	96.2	97.0
Gross enrolment ratio in Primary education (%)	100.9	100.7	101.1
Net enrolment ratio in Primary education (%)	96.6	96.7	96.4
Gross enrolment ratio in Secondary education (%)	97.4	97.2	97.6
Net enrolment ratio in Secondary education (%)	74.3	76.1	72.0
Economic activities (15 years and older population)			
Labour force participation rate (%)	**49.3**	**54.8**	**40.9**
Male	58.5	63.2	50.9
Female	39.7	45.6	31.3
Employment population ratio (%)	**35.2**	**38.8**	**23.4**
Male	40.0	46.4	29.6
Female	25.2	30.6	17.5
Unemployment rate (%)	**28.5**	**25.5**	**34.5**
Male	27.2	23.3	34.9
Female	30.4	28.8	33.7

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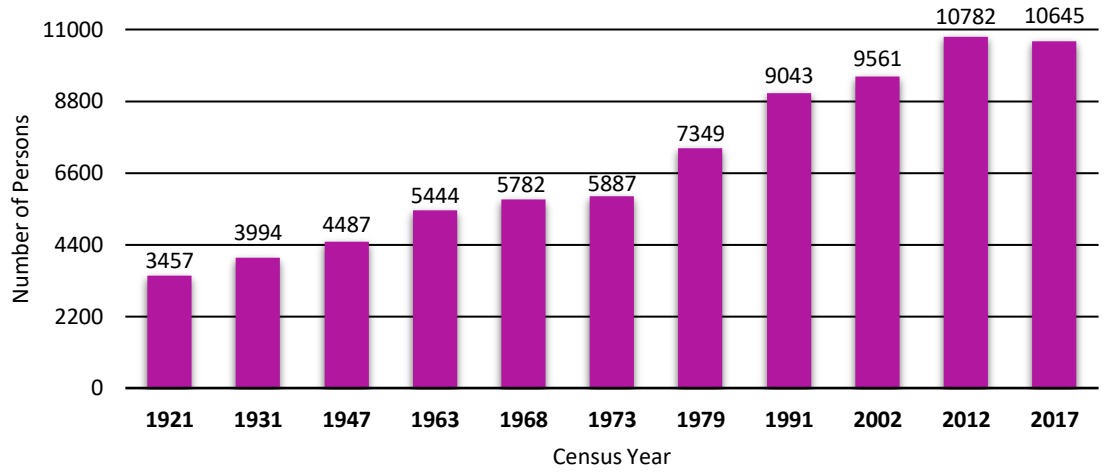
THE POPULATION CHARACTERISTICS

Figure 1: Total Population, 1921 - 2017



1. The total enumerated population for Tuvalu during the 2017 Mini-census was 10,645 people, this sums up the 10,507 permanent residents and 138 visitors or the non-residents.

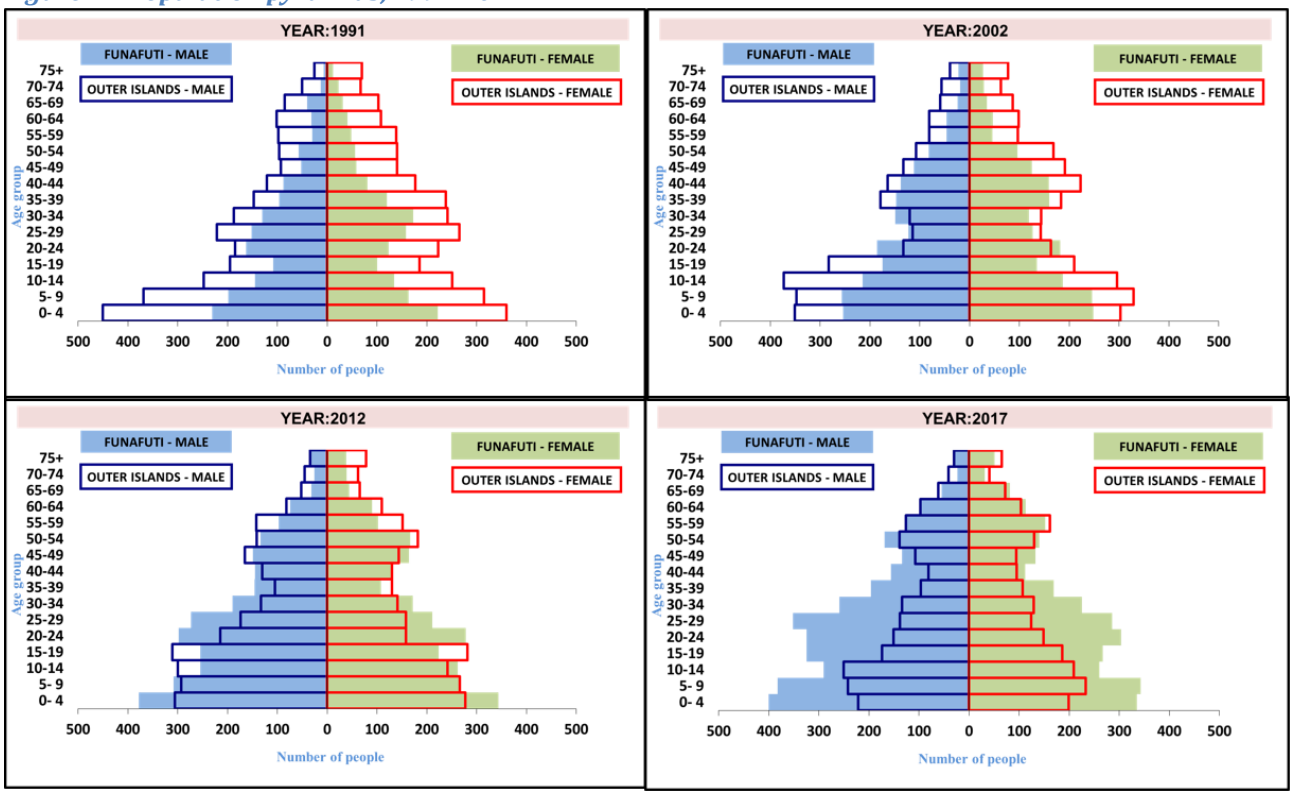
2. Within the 5 years from 2012 to 2017, the total population has decreased by 137 people. The first decline experienced with the census population, and a straight decrease of -1.3%, making an annual average growth rate of -0.3% per annum.

IMPORTANT NOTICE

The department (Central Statistics Division of Tuvalu) has undertaken data collections and analysis of the registered population. And that is the population estimates base from analyses using the vital registrations (births and deaths) and migrations statistics (the numbers of international travels). And as according to the estimates produced of the registered population, it was expected to have the population decline during the recent inter-censal period. And as a result, the expectation merges the overall results of the 2017 Mini-Census, illustrating a decrease of the population when comparing to that of the 2012 Census.

FUNAFUTI VERSUS THE OUTER ISLANDS

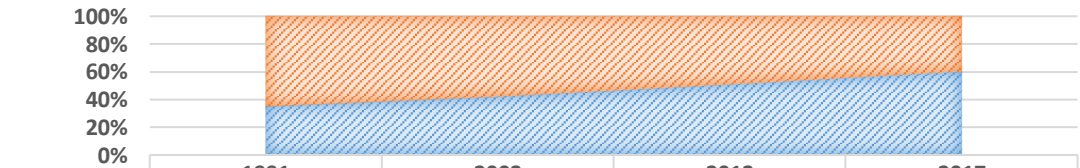
Figure 2: Population pyramids, 1991-2017



4. Clearly the censuses (Figure 2) emphasized the residents being populated more at outer islands than Funafuti in the early days. The increase in the shaded region of census pyramids from 1991 and worsening with that demonstrated of 2017 evidently revealed the urban drift occurrences over the years.

5. The males of actively working age group 20 to 34 years, females age 20 to 24 years were the first residents recognized of becoming more populated in Funafuti starting in 2012. In these days however Funafuti is dominating all age groups residents in terms of the counts and with the exception of elderly people of at least age 70.

FIGURE 3: POPULATION DISTRIBUTION BY REGION, 2002 TO 2017



	1991	2002	2012	2017
Out Islands	64.9	57.7	48.9	39.8
Funafuti	35.1	42.3	51.1	60.2

Census year

6. Funafuti has gained it share of the resident population to 60.2% from the 35.1% analyzed for 1991. The out islands on the other hand has it population approaching to 70% back in 1991. However it has lost it share of the residents to 39.8% in 2017 from 64.9%.

Table 1: Place used to live 3 years preceding the census dates, 2012-2017

Measuring dimensions	NATIONAL		FUNAFUTI		OUTER ISLANDS	
	2012	2017	2012	2017	2012	2017
Place of usual residence 3 years before census						
TOTAL	**9,845**	**9,813**	**5,550**	**6,146**	**4,295**	**3,667**
Funafuti	508	428	-	-	508	428
Same Island	7,478	7,930	4,051	4,987	3,427	2,943
Out islands	1,240	1,112	1,066	899	174	213
Overseas	619	343	433	260	186	83
Proportions (%) by place of usual residence 3 years before census						
TOTAL	**100**	**100**	**100**	**100**	**100**	**100**
Funafuti	5.2	4.4			11.8	11.7
Same Island	76.0	80.8	73.0	81.1	79.8	80.3
Out islands	12.6	11.3	19.2	14.6	4.1	5.8
Overseas	6.3	3.5	7.8	4.2	4.3	2.3

The above table illustrates the analysis base to responses of the people when they were questioned of where about they mainly live 3 years prior to census. The question was only asked during the 2012 and 2017 censuses, not to censuses before the 2012 one. The questions was designed to ask only to residents of age at least 3 years and over.

7. Massive number of people reported to reside the same islands 3 years before census, with islands that they were living at during the 2017 census. It was detected to be 76% and 80.8% of the residents were accounted for these people during the 2012 and 2017 censuses relatively.

8. And looking at movements between Funafuti and outer islands 14.6% (899 persons) of Funafuti were those shifted from outer islands to make a living in Funafuti. It was 19.2% (1,066 people) captured during the 2012 census.

9. Offsetting the internal migration gearing towards Funafuti, 428 people left Funafuti for the outer islands based from 2017 census. And it was 508 detected from 2012 census.

Table 2: Growth and density of resident population by island of usual residence, 1991-2017

ISLAND	POPULATION				ANNUAL GROWTH RATE r*			DENSITY (Persons per km²)			
	1991	2002	2012	2017	2002	2012	2017	1991	2002	2012	2017
FUNAFUTI	**3,086**	**3,962**	**5,436**	**6,320**	**2.3**	**3.2**	**3.0**	**1,102**	**1,415**	**1,941**	**2,360**
OUT ISLANDS	**5,695**	**5,397**	**5,204**	**4,187**	**-0.5**	**-0.4**	**-4.3**	**250**	**237**	**228**	**178**
Nanumea	893	855	612	512	-0.4	-3.3	-3.6	229	219	157	146
Nanumaga	714	710	551	491	-0.1	-2.5	-2.3	255	254	197	167
Niutao	884	817	694	582	-0.7	-1.6	-3.5	354	327	278	248
Nui	657	610	729	610	-0.7	1.8	-3.6	235	218	260	170
Vaitupu	1,286	1,310	1,542	1,061	0.2	1.6	-7.5	230	234	275	197
Nukufetau	826	701	666	597	-1.5	-0.5	-2.2	275	234	222	178
Nukulaelae	361	392	364	300	0.7	-0.7	-3.9	201	218	202	157
Niulakita	74	2	46	34	-32.8	31.4	-6.0	185	5	115	81
TUVALU	**8,781**	**9,359**	**10,640**	**10,507**	**0.6**	**1.3**	**-0.3**	**343**	**366**	**416**	**402**

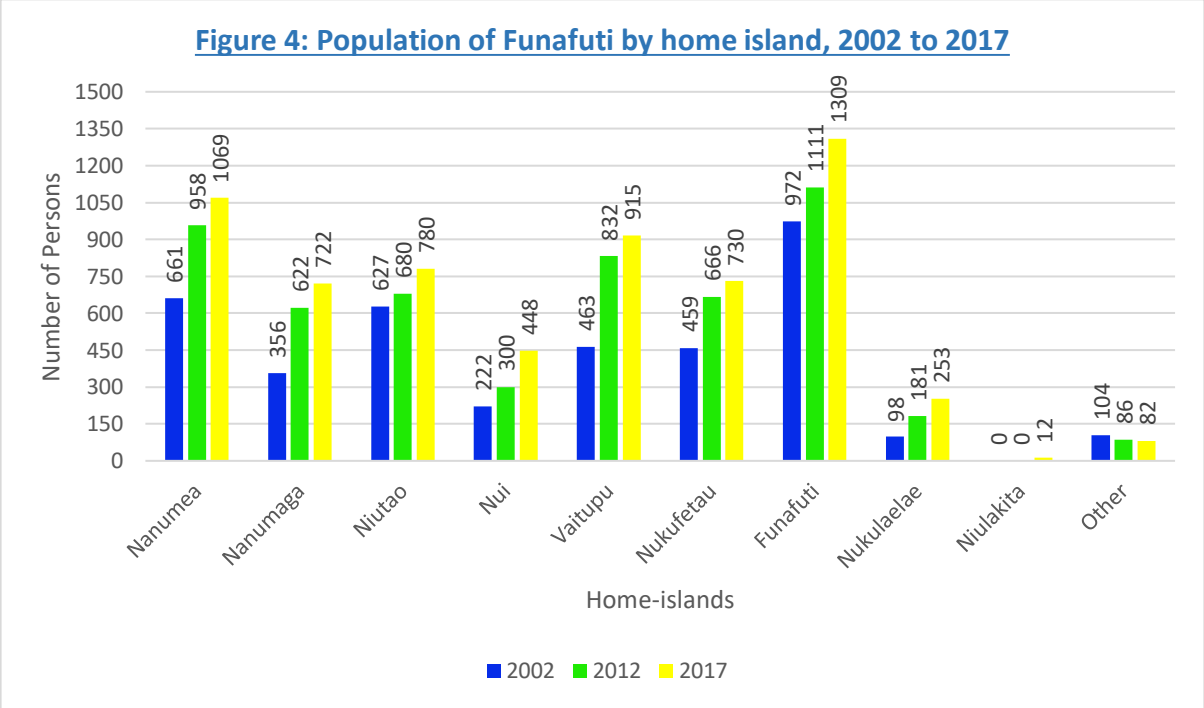
**Average annual rate of growth (in %)*

10. The residents of Funafuti has been below 4,000 people back in the days, now it is exceeding 6,000. It average annual growth rate reached 3% and above starting in 2012. The growth used to be 2.3% or less before .

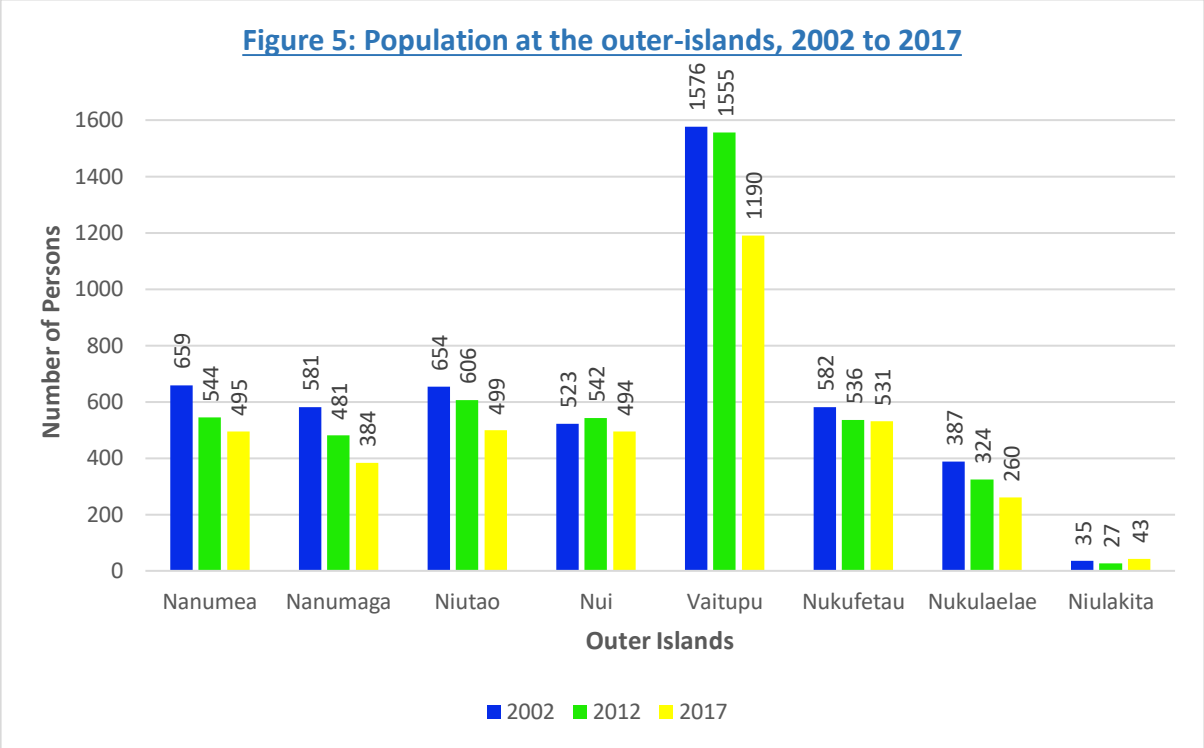
11. Note the enormous decline with residents of outer islands (-4.3% average annual rate). A huge decline experienced with census population over the years.

12. With due to the population decline, the resident population density has decreased from 416 people per square kilometer in 2012 to 410 people per square kilometer in 2017.

13. And statically urban Funafuti increased it density from 1,941 to 2,257 people per square kilometer. The outer islands of Tuvalu have decreased from 228 to 171 people per square kilometer during the 5 years period.



14. Funafuti has experienced a significant increase to it population from every island community of Tuvalu as of 2002 to 2017. Figure 4 is confirming us that there is really urbanization in Tuvalu.



15. In relation to Figure 4, Figure 5 shows the decreasing number of residents for all islands of the outer islands from 2002 to 2017, other than Nui and Niulakita.

THE HOME ISLANDS OF RESIDENTS

Table 3: Resident population by Home Islands, 1991-2017

ISLAND	POPULATION				ANNUAL GROWTH RATE r*		
	1991	2002	2012	2017	2002	2012	2017
Nanumea	1,449	1,560	1,656	1,603	0.7	0.6	-0.7
Nanumaga	1,013	1,063	1,222	1,230	0.4	1.4	0.1
Niutao	1,423	1,453	1,424	1,403	0.2	-0.2	-0.3
Nui	766	835	1,034	1,035	0.8	2.1	0.0
Vaitupu	1,429	1,694	2,068	1,857	1.5	2.0	-2.2
Nukufetau	1,113	1,149	1,381	1,323	0.3	1.8	-0.9
Funafuti	1,026	1,004	1,166	1,339	-0.2	1.5	2.8
Nukulaelae	457	461	543	568	0.1	1.6	0.9
Niulakita	105	2	20	31	-36.0	23.0	8.8
Other	0	138	126	118			
TUVALU	**8,781**	**9,359**	**10,640**	**10,507**	**0.6**	**1.3**	**-0.3**

16. The Vaitupu community is recognized as having the most populated natives it comprises. It became peaked in 2012 with above 2,000 home islanders. Before it was Nanumea community that do have the maximum number of it people.

17. Nukulaelae community has recorded the least number of it people all throughout the censuses.

Table 4: Resident population age 18 years and older by Home Islands, 1991-2017

ISLAND	POPULATION			
	1991	2002	2012	2017
Nanumea	879	903	1,040	1,030
Nanumaga	632	630	752	791
Niutao	867	874	874	904
Nui	466	526	626	634
Vaitupu	848	978	1,245	1,162
Nukufetau	683	673	826	830
Funafuti	557	550	664	772
Nukulaelae	286	270	325	352
Niulakita	92	1	9	15
Other		66	115	106
TUVALU	**5,310**	**5,471**	**6,476**	**6,596**

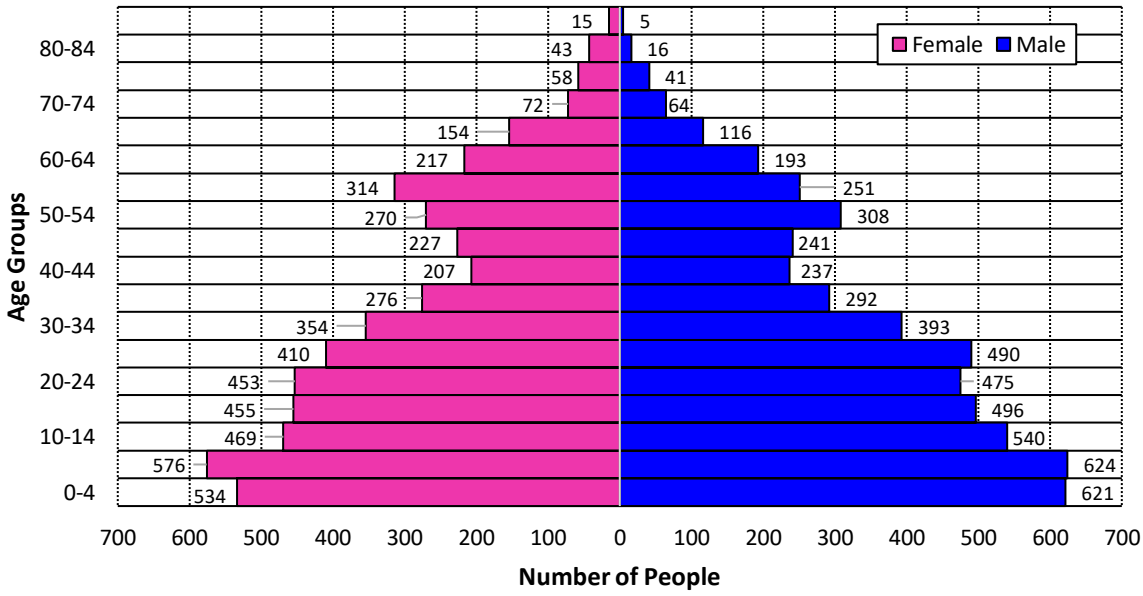
The table to the left is produced to cater the demand statistics related general elections

18. Vaitupu and Nanumea are the only communities that can have beyond 1,000 natives to participate with the votes.

19. Other than Niulakita, Nukulaelae is noticed to have significant low natives, estimated to 352 that are able to register as voters.

RESIDENT POPULATION BY AGE AND SEX

Figure 6: Age-Sex Structure of Resident Population, Tuvalu 2017

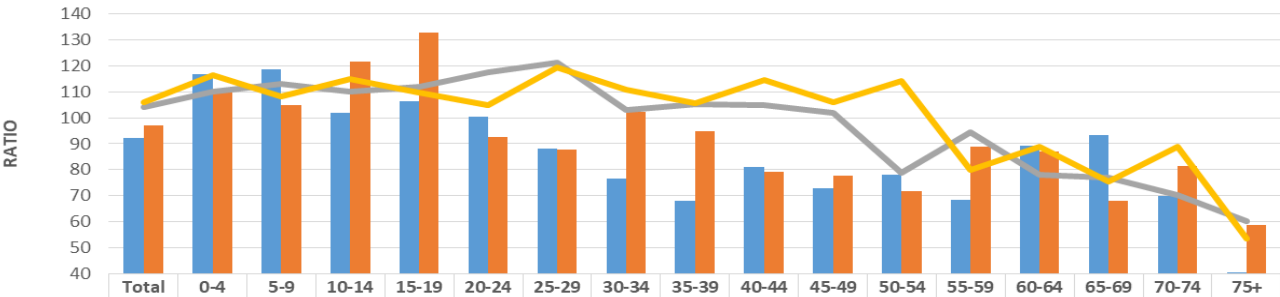


20. The broad base of the structure indicates a population that is young with 11% of the population under five years of age.

21. A distinct feature of the population pyramid is the indent of the age groups from 30 to 54 years, meaning that these age groups are much smaller than the younger age groups and the older ages directly above them. This is a clear indication of out-migration for these working age groups which could be the reason of declining population occurred in the past 5 years.

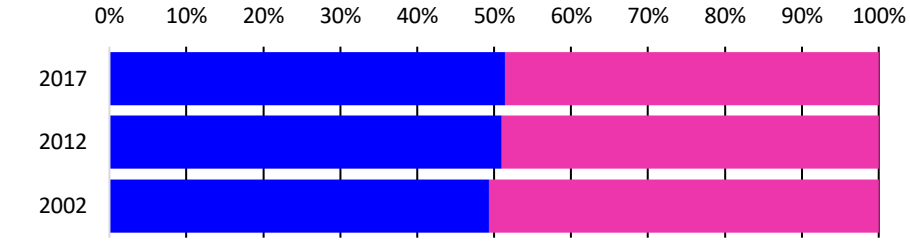
SEX RATIO AND PROPORTIONS

Figure 7: Sex ratio by age groups of census years



	Total	0-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75+
1991	92.3	117.0	118.6	102.1	106.3	100.6	88.2	76.4	67.9	81.0	72.9	78.1	68.4	89.3	93.3	70.0	40.2
2002	97.2	109.8	104.9	121.7	132.8	92.5	87.8	102.3	94.8	79.1	77.5	71.6	88.8	87.0	68.0	81.5	58.7
2012	104.0	110.1	113.2	110.1	111.9	117.7	121.1	103.2	105.5	105.0	101.9	78.8	94.5	78.0	77.1	70.3	60.3
2017	105.9	116.3	108.3	115.1	109.9	104.9	119.5	111.0	105.8	114.5	106.2	114.1	79.9	88.9	75.3	88.9	53.4

Figure 8: Sex proportions (%), 2002 - 2017



	2002	2012	2017
Male	49.3	51.0	51.4
Female	50.7	49.0	48.6

22. The sex ratio continued to increase since 1991. It simply means the proportions of residents being males is increasing over the years. Starting in 2012 the sex ratio tends to reach beyond 100 (i.e. 104). The 104 rate interpret as for every 100 population of women, there are 104 men relatively.

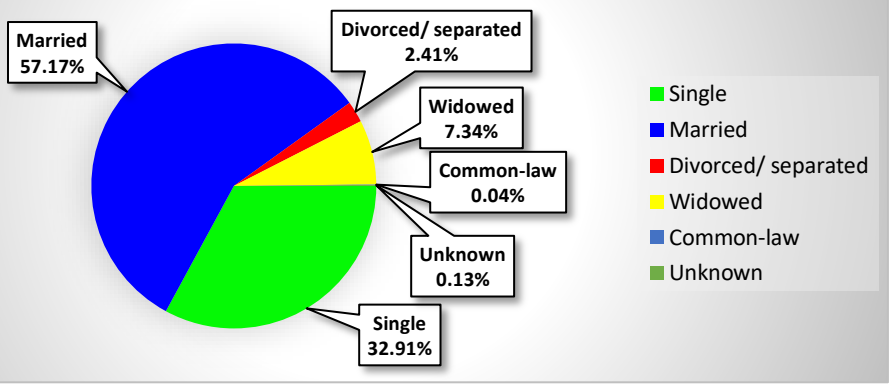
23. Having the rates being more positive at early ages since birth, it tells us that males dominate the population of respective ages. Certain elucidations of rates are listed below;

	The rates	**explanations**
a.	Having the rates being below 100 for the first time at age 20-29 years for 1991 and 2002	Males were more engaged in employment opportunities abroad and leaving the females behind. The men as actively working seafarers, remitting the finance from overseas, followed by those working as Laborers in Nauru were the remarkable employments noticed at the time.
b.	Sturdily positive rates at age 0-4 years	Usually there are more males compared to females at births
c.	Starting to drop at the ages of elderly population	Men used to passed away earlier and therefore left with mostly female population

24. In 2002, 51% of the population were females and 49% were males. As illustrated in Figure 8, since 2002, males has slowly increased in numbers. And starting in 2017, they dominated the population with 51% whereby females were accounted for 49% of the population.

THE MARITAL STATUS

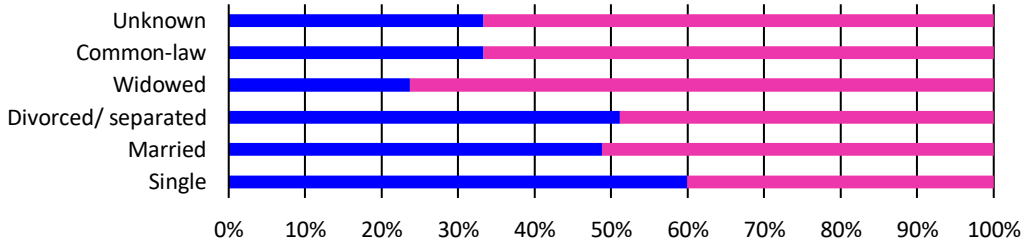
Figure 9: 2017 Marital status for resident population 15+ years



25. The 2017 Census recorded that more than half or 57% of the resident population 15 years and over are married.

26. Singles residents 15 years and above have the second share with 33%, whereas the third quota with only 7% are widowed.

Figure 10: Resident Population Marital status by sex



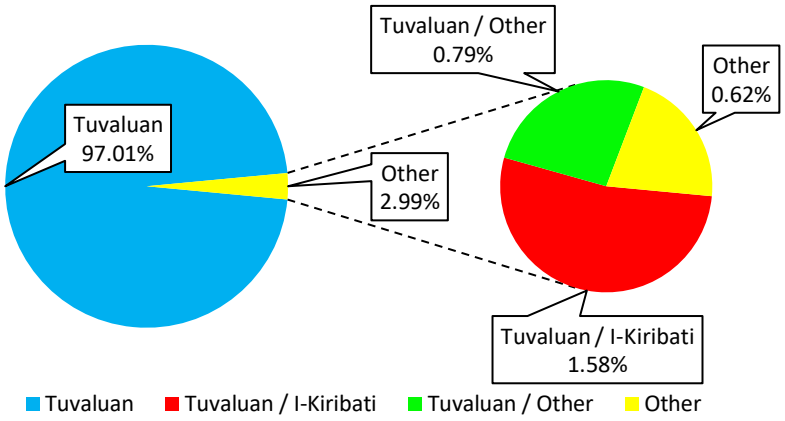
	Single	Married	Divorced/ separated	Widowed	Common-law	Unknown
Males	1,409	1,993	88	124	1	3
Females	942	2091	84	400	2	6

Males Females

27. A distinctive feature noticed in Figure 10 above is the widowed category where females dominating it with more than 76%, two other categories dominated by females are the Common-law and Unknown. However, the 'Single's' category is dominated by males with about 60% majority over 'Single' females.

ETHNICITY

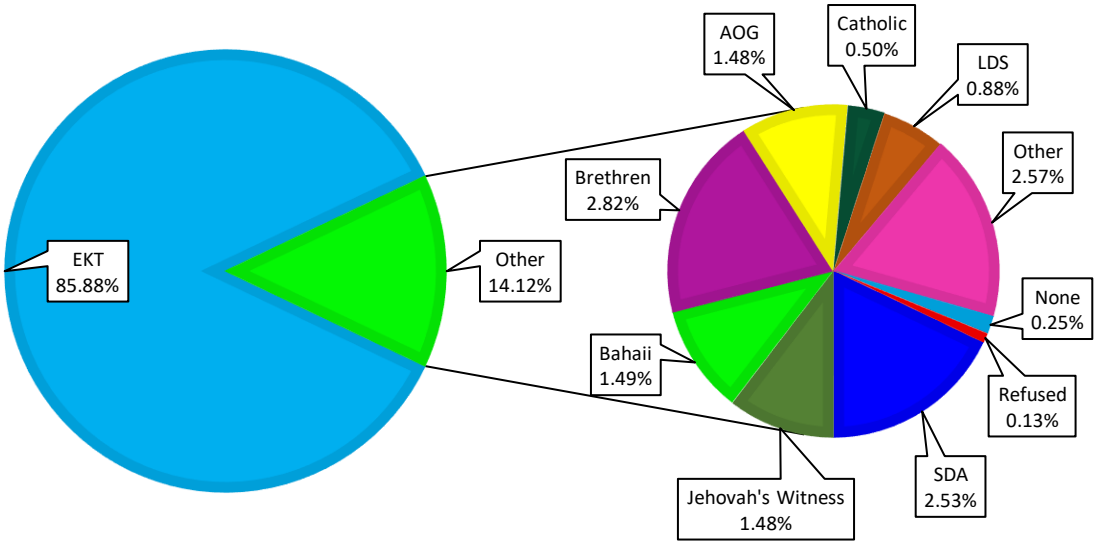
Figure 11: Resident Population by ethnic group



28. The population of Tuvalu is very homogeneous, with 10,193 persons or 97% being of Tuvaluan descent whereas the other 3% being divided among 3 ethnic groups, Tuvaluan/I-Kiribati, Tuvaluan/Other, and Other ethnicities.

RELIGION

Figure 12: Religious distribution among resident population



29. With 9,023 persons (86% of the population) affiliated to it, the Ekalesia Kelisiano Tuvalu (EKT) is the dominant religion in Tuvalu. The remaining other denominations accounted for 14% of the resident population of Tuvalu.

EDUCATION

THE ATTENDANCE AND ENROLMENT PERFORMANCE

There have been changes to education system over the years in Tuvalu. Before and including 1991 the education level used to attend by the population is as accordance to the specifications listed below;

- Kindergarten level – Ages 3 to 5 years
- Primary level – Ages 6 to 12 years, a respective grades of Class 1 to Class 7 (or Form 1 equivalent)
- Secondary level
  - Age 12 to 15 years (Form 1 to Form 4)
  - Age 16 to 17 years (Form 5 lower to Form 5 upper grade)

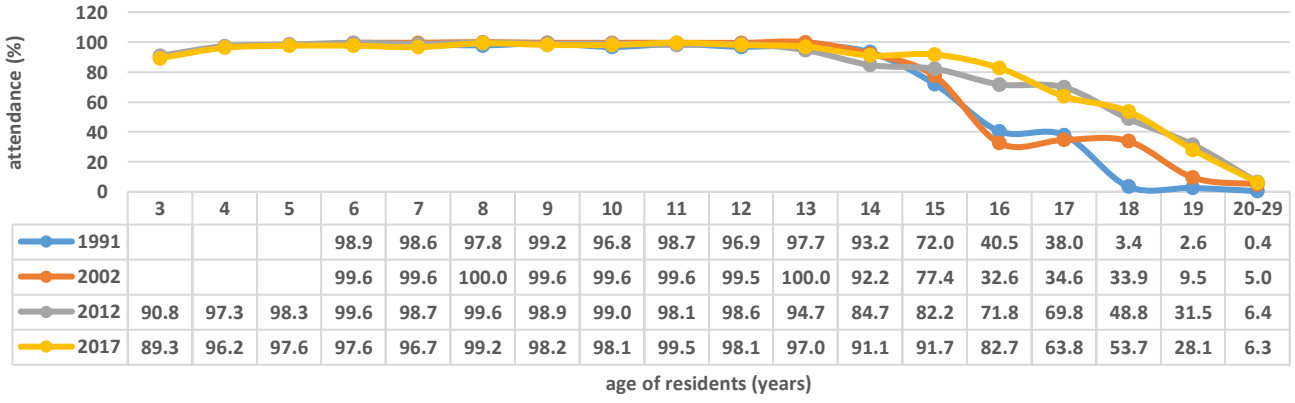
And starting in 1991 to 1994, the levels at primary and secondary education changed slightly;

- Primary level – Ages 6 to 13 years (Classes 1 to Form 2)
- Secondary level – Ages 14 to 18 years (Form 3 to Form 7)

Figure 13 to 15 below illustrates the proportion of school attendances for resident population of age 3 to 29 years for 1991 to 2017

"Attend" do include **Full-time** and **Part-time** students, whereas "Not attend" is accounted for those responded as have **Left School** and **Never Attended School**.

Figure 13 : Resident population attending school, 1991 to 2017



	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20-29
1991				98.9	98.6	97.8	99.2	96.8	98.7	96.9	97.7	93.2	72.0	40.5	38.0	3.4	2.6	0.4
2002				99.6	99.6	100.0	99.6	99.6	99.6	99.5	100.0	92.2	77.4	32.6	34.6	33.9	9.5	5.0
2012	90.8	97.3	98.3	99.6	98.7	99.6	98.9	99.0	98.1	98.6	94.7	84.7	82.2	71.8	69.8	48.8	31.5	6.4
2017	89.3	96.2	97.6	97.6	96.7	99.2	98.2	98.1	99.5	98.1	97.0	91.1	91.7	82.7	63.8	53.7	28.1	6.3

30. Similar trend is reflecting by all censuses. The school attendance tend to peak at age equivalent to Primary education, the children aged 6 to 13 years.

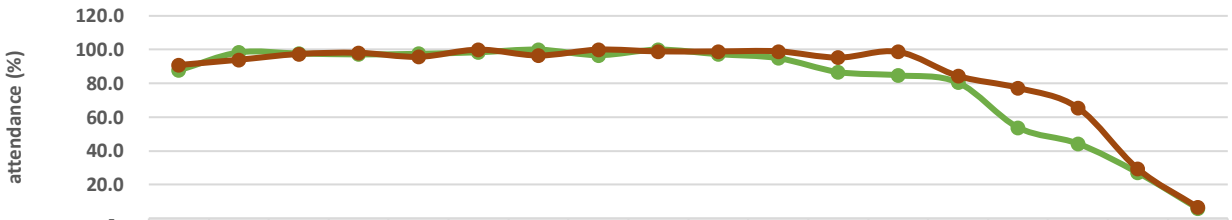
31. Despite decline in attendance starts at the population of age corresponding to Secondary education level, the attendance status at Secondary level has improved from 1991 to 2017.

32. And as for after secondary education level age group, a significant low school attendance attitudes is observed.

33. In early decades 1991 and 2002, the teenage residents drop-out from school earlier at age 16 years when compared to 2012 and 2017. It reflected the practices in education system back in the years where there were no chances for students to repeat a grade starting at Form 4 whenever they failed.

And additionally there were also limited education opportunities such as vocational education for students that were to pushed out of formal education.

Figure 14 : Resident population attending school by sex, 2017 census



	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20-29
Male	87.7	98.3	97.7	97.2	97.5	98.4	100.	96.7	100.	97.3	94.9	86.7	84.8	80.5	53.9	44.3	27.1	6.0
Female	90.9	94.0	97.4	98.1	95.8	100.	96.6	100.	99.0	99.0	99.0	95.3	98.7	84.4	77.4	65.6	29.3	6.6

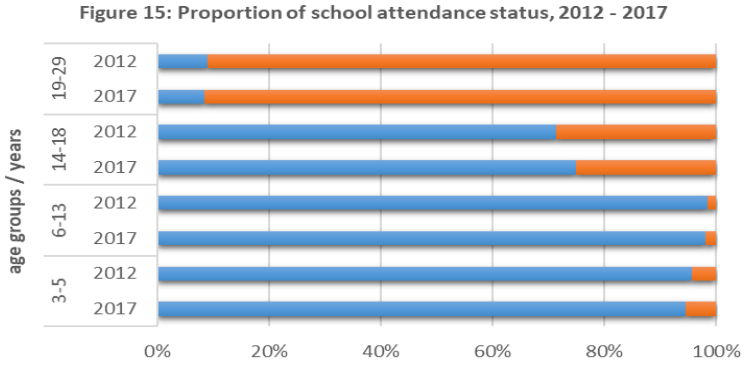
age of residents (years)

34. Gender gaps (refer to Figure 14) is actually occurring starting after the age 13 years old children. The proportions of school drop-outs started to increase, with girls having better school attendance when compared to the boys at age 14 to 18 years old.

Looking at 'attending school status' base from the 2017 and 2012 Censuses;

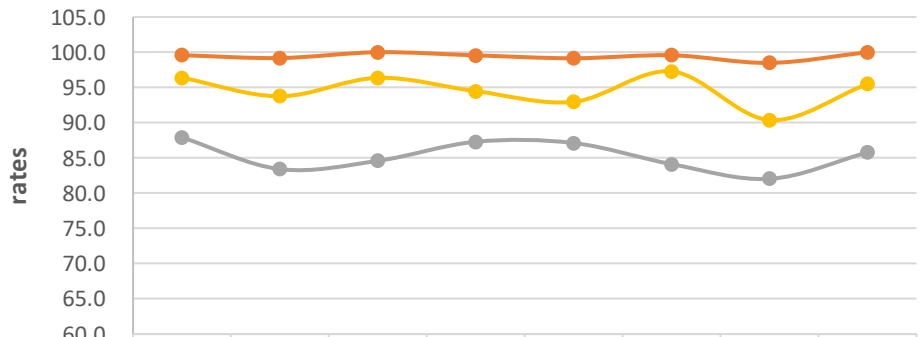
35. Still not all children attend school at age of Early Childhood and especially those of Primary education level.
    - 95.5% in 2012 to 94.5% in 2017 for Kindergarten age group
    - and 98.5% in 2012 to 98.0% in 2017 for Primary level age group.

Figure 15: Proportion of school attendance status, 2012 - 2017



	3-5		6-13		14-18		19-29	
	2017	2012	2017	2012	2017	2012	2017	2012
Attend	94.5	95.6	98.0	98.5	74.8	71.4	8.3	8.9
Not attend	5.5	4.4	2.0	1.5	25.2	28.6	91.7	91.1

Figure 16: Net enrollment rate for primary education, 2002 t0 2017



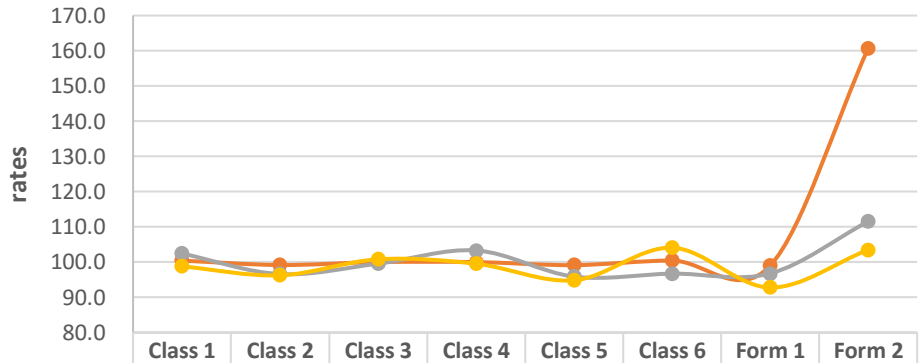
	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Form 1	Form 2
2002	99.6	99.2	100.0	99.6	99.1	99.6	98.5	100.0
2012	87.9	83.4	84.6	87.3	87.1	84.1	82.0	85.8
2017	96.4	93.8	96.4	94.5	93.0	97.3	90.4	95.5

Note: Due to certain issues of accessing information for analyses, the 1991 analyses were excluded

The net enrollment represents the proportions of students that are schooling at the exact education grade of their ages. For instance, a 10 years old child is expected to enroll in Class 5, or else the child is repeating his/her Class 4, or left school already or advancing his/her education to a higher level.

36. The net enrollment is considerably high in 2002, dropped in 2012 and was improved in again 2017. Repeating a grade at primary education apart from Form 1 and Form 2 is not common in Tuvalu. However one contributing factor towards the rates were the drop-outs from school. Having low drop-outs at primary education during 2002 (Figure 13) turned out to a more positive net enrollment rates.

Figure 17: Gross enrollment for primary education, 2002 to 2017

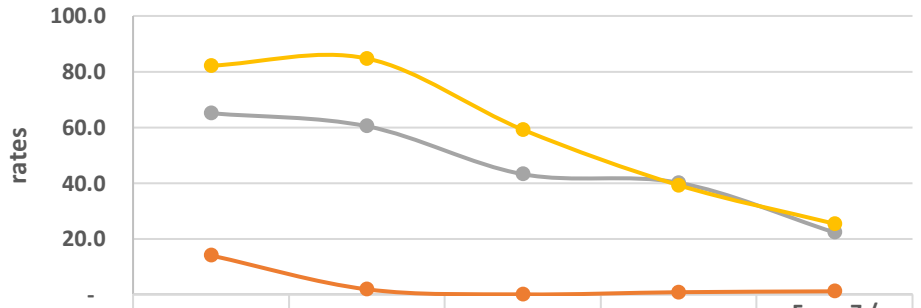


	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Form 1	Form 2
2002	100.4	99.2	100.0	100.0	99.1	100.4	99.0	160.7
2012	102.4	96.6	99.6	103.3	95.9	96.7	96.8	111.6
2017	98.8	96.3	100.8	99.5	94.8	104.1	92.8	103.5

The gross enrollment represents the proportions of students that are schooling at an education grade regardless of their ages. For instance, a 10 years old child enrolling in Class 3.

37. The gross enrollment for Form 2 is extensively high in 2002 indicating higher number of students repeating the grade.

Figure 18: Net enrollment for secondary education, 2002 to 2017



	Form 3	Form 4	Form 5	Form 6	Form 7 / Foundation
2002	14.0	1.8	-	0.8	1.1
2012	65.1	60.4	43.2	40.1	22.2
2017	82.1	84.7	59.2	39.2	25.4

38. The net enrollment for secondary education is comprehensively low in 2002. The notable contributing factor towards the rates was the low passing rates of students in few years preceding the 2002 census.

THE QUALIFICATIONS OF RESIDENTS

The analyses provided in Figure 19 to Figure 22 illustrates the highest qualifications attainment of residents age 15 years and older. Those who were yet to achieve qualifications provided that they were still studying during the census were assigned with appropriate qualifications. For instance, a 16 year old student still schooling at Form 5 level was categorized as having a Form 4 being his / her highest qualification.

The Figure 19 and Figure 20 are just the same analyses where Figure 20 further grouped the detail qualifications analyzed and provided in Figure 19

39. The qualifications with Secondary education (Form 4,5,6,7) recorded as highest category with 40.3% residents 15 years and older having these attainments (Figure 20).

40. The males dominated the Vocational, Maritime and Trade certifications where females on the other hand dominated the Teachers, Nurses and Medical certifications.

41. About the same proportions of males and females attained the Diploma, Degree, Postgraduate and Master qualifications with 6.5% and 6.4% respectively.

FIGURE 19: HIGHEST QUALIFICATIONS ACHIEVEMENTS OF RESIDENTS AGE 15 YEARS AND OLDER

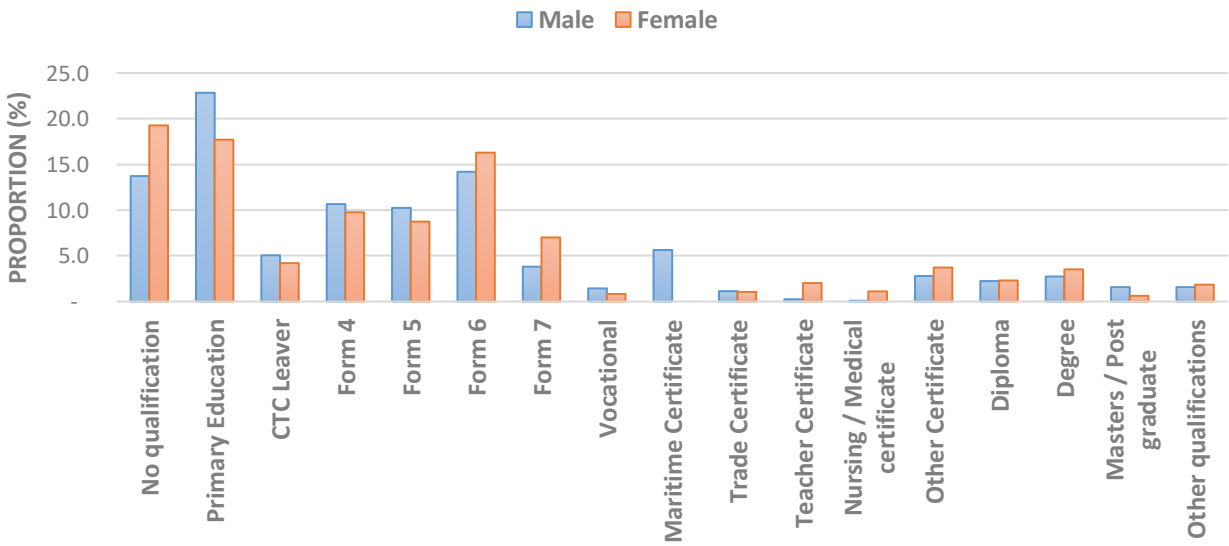
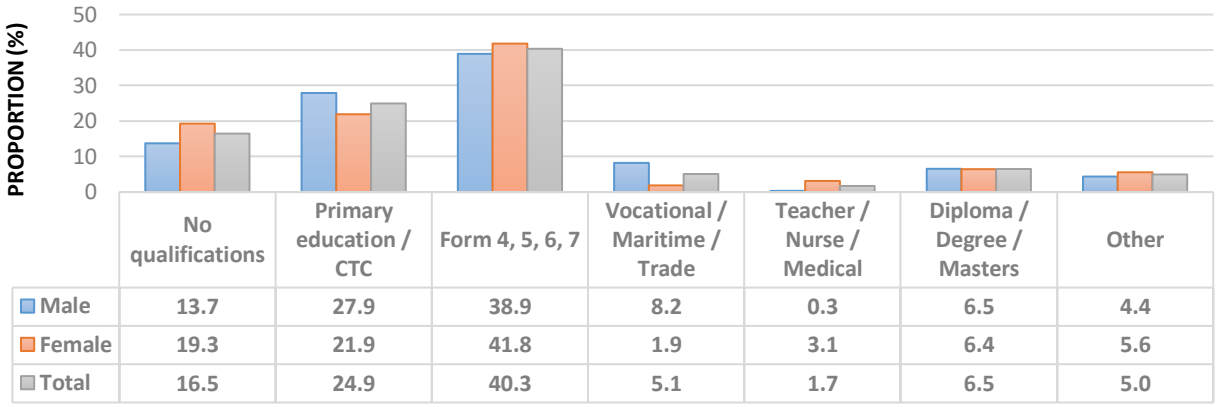


FIGURE 20: HIGHEST QUALIFICATIONS ACHIEVED (%) BY RESIDENT POPULATION AGE 15 YEARS AND OLDER



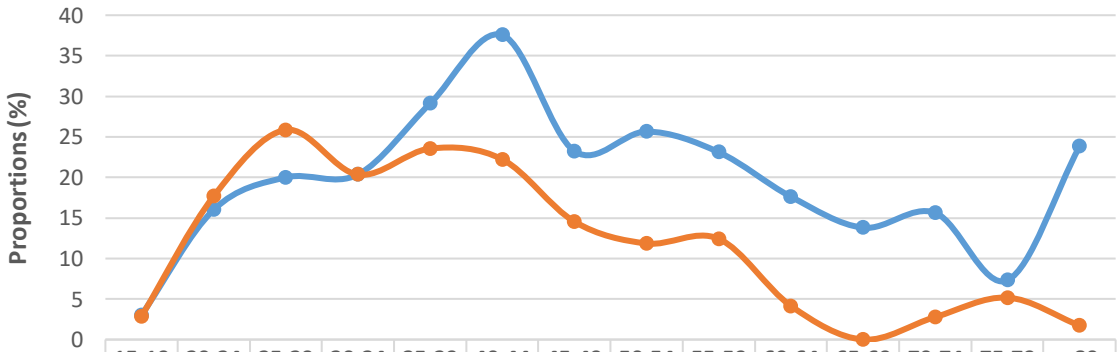
	No qualifications	Primary education / CTC	Form 4, 5, 6, 7	Vocational / Maritime / Trade	Teacher / Nurse / Medical	Diploma / Degree / Masters	Other
Male	13.7	27.9	38.9	8.2	0.3	6.5	4.4
Female	19.3	21.9	41.8	1.9	3.1	6.4	5.6
Total	16.5	24.9	40.3	5.1	1.7	6.5	5.0

Figure 21 analyses the population with qualifications that were mostly achieved after secondary education. It is important to know that there were 'Vocational' and Trade certificates achieved by residents with primary education levels only.

The qualifications assessed in this analyses however includes the Vocational, Maritime, Trade, Teachers, Nursing and Medical related certifications, the Diploma and undergraduate Degree, Post Graduate and Masters, and finally the Other certificates and qualifications.

42. Figure 21 clearly illustrates that males dominated these qualifications constantly starting at age 35 onwards. The females with these qualifications have slightly higher proportions

FIGURE 21: RESIDENTS AGE 15 YEARS AND OLDER ACHIEVING QUALIFICATIONS AFTER SECONDARY EDUCATION BY SEX AND AGE GROUP

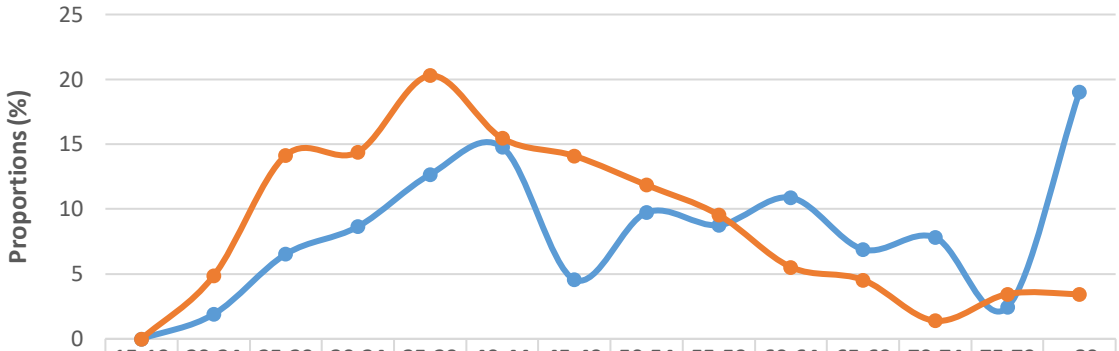


	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	>80
M	3.0	16.0	20.0	20.4	29.1	37.6	23.2	25.6	23.1	17.6	13.8	15.6	7.3	23.8
F	2.9	17.7	25.9	20.3	23.6	22.2	14.5	11.9	12.4	4.1	-	2.8	5.2	1.7

And further researching specifically in to what may so referred to as the 'Formal' qualifications, the analyses identified the 'Formal' qualifications as Teachers, Nursing and Medical related certifications, the Diploma and undergraduate Degree, Post Graduate and Masters qualifications. Figure 22 therefore analyses the population with these qualifications.

43. The females proportions with such a qualifications exceeded significantly at earlier ages, from age 20 to 59 years old. The males however prevalently surpasses the females starting in aged population starting at age after 59 years old

FIGURE 22: RESIDENTS AGE 15 YEARS AND ABOVE ACHIEVING FORMAL QUALIFICATIONS AFTER SECONDARY EDUCATION BY SEX AND AGE GROUP



	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	>80
M	-	1.9	6.5	8.7	12.7	14.8	4.6	9.7	8.8	10.9	6.9	7.8	2.4	19.0
F	-	4.9	14.1	14.4	20.3	15.5	14.1	11.9	9.6	5.5	4.5	1.4	3.4	3.4

ECONOMIC ACTIVITY (15+ YEARS)

Figure 19: Tuvalu Labour Force Framework, 2017

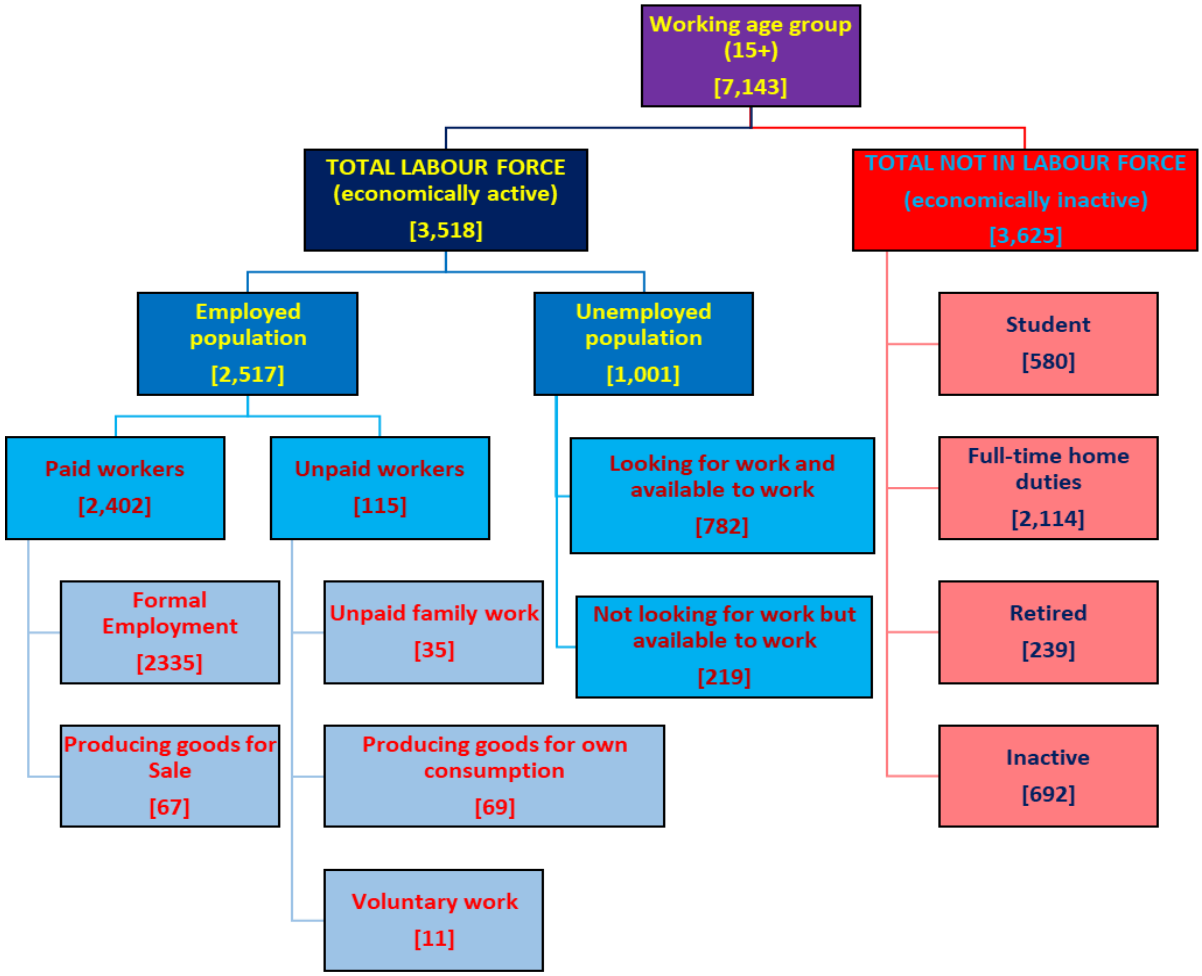


Figure 20: Population categorized under Labour Force

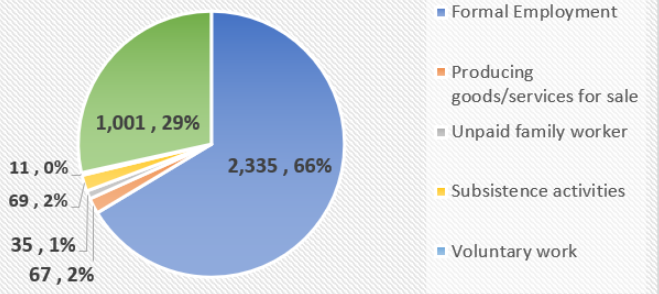
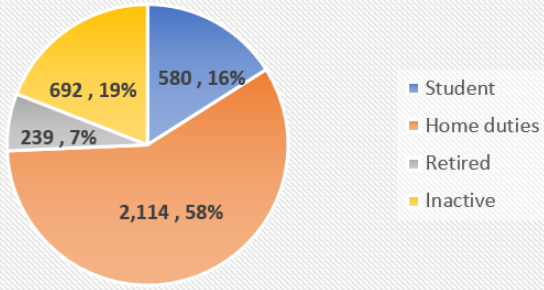


Figure 21: Population categorized under Non-Labour Force



44. Formal employed and unemployed population is noticed as 2 major components of the labour force with totals of 2335 and 1001 people respectively (Figure 19 and 20). And on the other hand the home duties is incredibly dominating the non-labour force category which accounts for 58% (Figure 14).

45. Using the Figures 19 to 21 provided above, the 3 main Labour Force indicators is produced as below;

Table 5: Labour Force indicators (%), 2012 - 2017

Indicators	2012	2017
Labour force participation rate	59.4	49.3
Employment population ratio	28.6	35.2
Unemployment rate	39.6	28.5

Basically the indicators are produced as according to calculations illustrating below

Labour Force Participation Rate $= \frac{\textbf{(population at age 15+) Labour Force}}{\textbf{(population at age 15+) Total}} \; x \; 100\%$

Employment-population ratio $= \frac{Formal\ Employed\ Population}{\textbf{(population at age 15+) Total}} \; x \; 100$

Unemployment Rate $= \frac{Unemployed\ Population}{\textbf{(population at age 15+) Labour Force}} \; x \; 100$

46. Despite the decrease in the labour force participation rate in 2017 when compared to that of year 2012, the employment population ratio increases to 32.7% from 28.6% during the inter-censal period. Additionally the unemployment rate has decrease to 28.5% in 2017 from 39.6% recorded in 2012.

Table 6: Labour Force indicators by sex and region

Indicators	Male	Female	Funafuti	Outer Islands
Labour force participation rate	58.5	39.7	54.8	40.9
Employment population ratio	40.0	25.2	38.8	23.4
Unemployment rate	27.2	30.4	25.5	34.5

47. In terms of accessing the employments opportunities, Table 6 demonstrates the indicators tends to be more positive for Funafuti when compared to outer islands with majority being males accessing the jobs opportunities compared to female.

HEALTH CHARACTERISTICS

This census continued to collect data based from request the Ministry of Health in preceding censuses. All adults aged 15 years and older were asked whether they smoke cigarettes (including the tobacco), drink alcohol, or drink kava. And listed as follows were the 4 choices provided as response for respondent; the "never", "regularly" or "sometimes" and finally the "no longer."

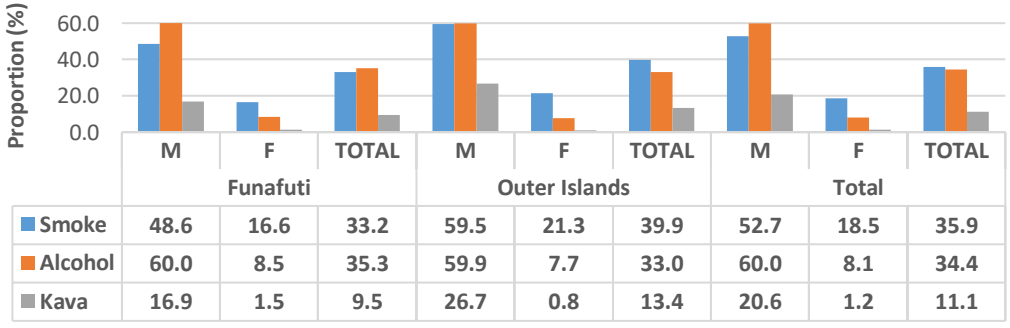
The analyses in this section combined those who responded as regularly and sometimes as the smokers and those drinking alcohol plus kava.

49. Aggregately about the same number of users for alcohol and varieties of smokes with comparably high numbers of them than those drinking kava.

50. Although kava is a newly introduced substance the 2017 census revealed that 13.4% and 9.5% adults living at the outer islands and Funafuti relatively are drinking kava.

51. More males than females do smoke and drink alcohol and kava. And majority of males drink alcohol when compared to their population that uses the smokes. The females on the other hand adapt the opposing attitudes of consuming alcohol and the smokes.

Figure 22: Users of smokes, alcohol and kava by region and sex

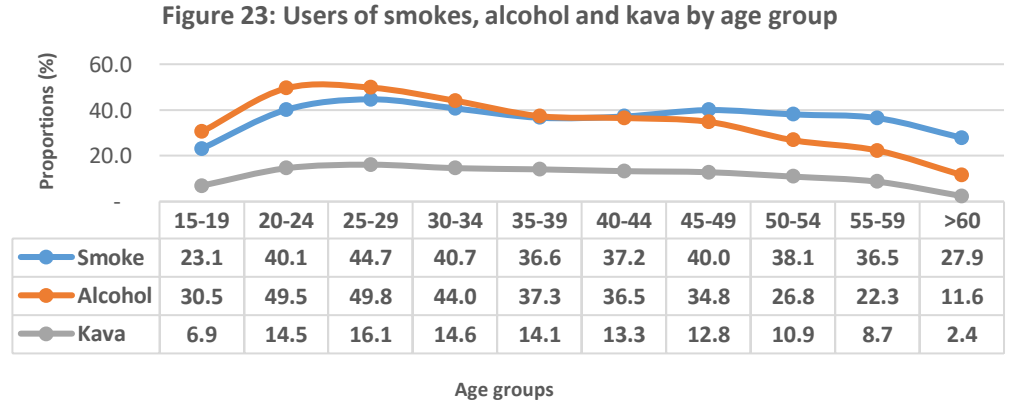


	Funafuti			Outer Islands			Total		
	M	F	TOTAL	M	F	TOTAL	M	F	TOTAL
Smoke	48.6	16.6	33.2	59.5	21.3	39.9	52.7	18.5	35.9
Alcohol	60.0	8.5	35.3	59.9	7.7	33.0	60.0	8.1	34.4
Kava	16.9	1.5	9.5	26.7	0.8	13.4	20.6	1.2	11.1

52. The age groups with high proportions of people consuming the diversities of smokes and alcohol were the 25-29 and 20-29 years of age correspondingly. And those who consumes kava with fairly common proportions falls under age group 20-49.

53. Before 40 years of age, there are more adults drinking alcohol compared to those who were smoking. However, more people that do smoke than alcohol users starting at age 40 years

Figure 23: Users of smokes, alcohol and kava by age group



	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	>60
Smoke	23.1	40.1	44.7	40.7	36.6	37.2	40.0	38.1	36.5	27.9
Alcohol	30.5	49.5	49.8	44.0	37.3	36.5	34.8	26.8	22.3	11.6
Kava	6.9	14.5	16.1	14.6	14.1	13.3	12.8	10.9	8.7	2.4

54. Males dominated the population identified as smokers, and those drinking alcohol and kava in all adult age groups compared to females.

Figure 24: Age 15 years and older that smoke cigarettes or use tobacco

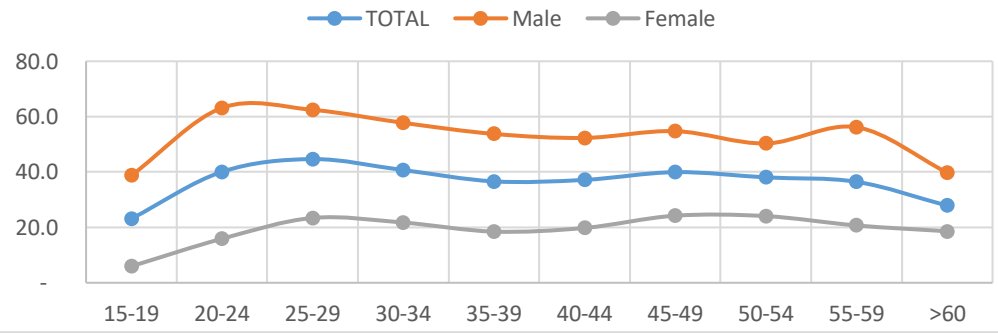


Figure 25: Population 15 years and older who drinks alcohol

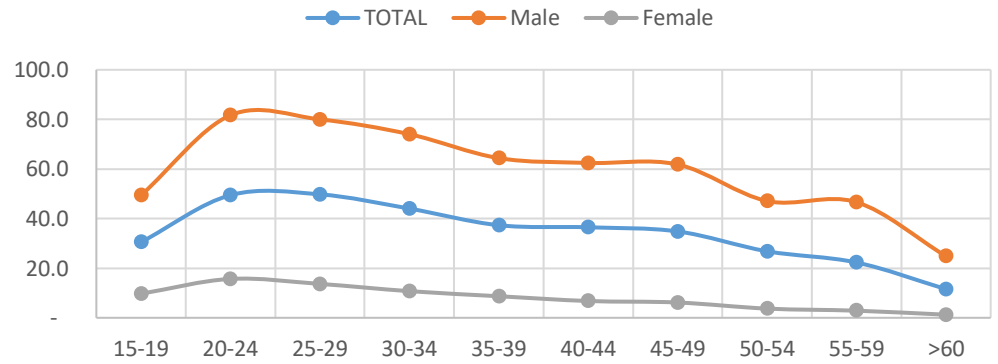
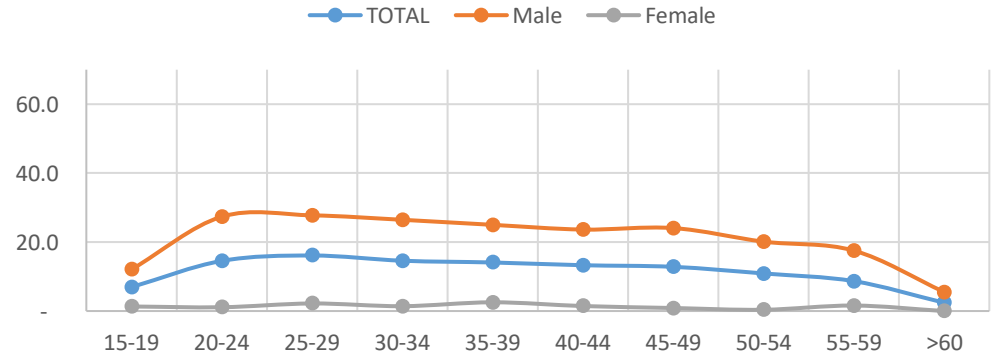


Figure 26: Percent of the resident population 15 years and older who drink kava



PERSONS WITH DISABILITY

Disability has basically defined by the Convention of the Rights of Persons with Disability (CRPD) as those who have long-term physical, mental, intellectual or sensory impairments, which in interaction with various factors, may hinder their full and effective participation in society on an equal basis with others. It is conceptualized as a continuum, from minor to severed functioning limitations, which have major impacts on one's life.

The census however utilizes the sequences of questions referred to as the Washington Group on Disability Statistics (WG) short set of questions to capture and reflect this continuum. The questions are universally recognized as standard disability questions for collections of important information of disability population. The resident population of age 5 years and above were the targeted population to response to these disability questions. The WG questions that were used are provided below;

1. Does name have difficulty in seeing, even if wearing glasses?
2. Does name have difficulty in hearing, even if wearing hearing aid?
3. Does name have difficulty in walking or climbing steps?
4. Does name have difficulty in remembering or concentrating?
5. Does name have difficulty with self-care such as washing all over and dressing?
6. Using customary language, does name have difficulty in communicating such as understanding or being understood?

The respondents in return should select one of the listed categories below as their response to questions;

1. No, no difficulty
2. Yes, some difficulty
3. Yes, lot of difficulty
4. Cannot do at all

The three disability cut off that are possible when applying the Washington Group tools are illustrated below.

Disability cut off category	Definition
1. At least some difficulties	those who stated that they have "some difficulty" or "a lot of difficulty" or "cannot do at all" in at least one of the domains
2. At least lots of difficulties	those who stated that they have "a lot of difficulty" or "cannot do at all" in at least one of the domains
3. Cannot do at all	are those that stated that they "cannot do at all" in any domains

And with standards of the disability analyses, WG recommended to mark the people with disabilities (PWD) as the cut-off set at the highlighted *Category (2)*, and that is those who responded as having '**lot of difficulty**' or '**cannot do at all**' in any of the domains. The disability domains that are used in this analysis include seeing, hearing, walking, remembering and self-care.

In almost all the analysis provided in this section for comparison purposes, the disability population based from the disability cut off highlighted Category (2) (the 'at least lots of difficulties') is being used as the benchmark for analysis as recommended by the Washington Group

55. There were 1233 (13.2%) residents responded as having at least some difficulties in any of the functional domains.

56. And base from the disability cut off recommended for disability analyses, a total of 282 people (3%) at the age 5 years and above are identified as the disability population. A higher population of these people live at the outer islands (151 persons or 4.3%) compared to Funafuti with 131 (2.3%) persons.

57. And for the 'CANNOT DO AT ALL' cut off category, only 75 (0.8%) residents falls under this category with Nanumea, Nanumaga and Nui illustrated the highest proportions of them.

58. And comparing the population proportions by regions in all of the cut off categories, higher disability population is observed living at the outer islands and slightly fewer live in Funafuti.

Table 7: Population by functional domain and disabilities categories

Island	Population	Count			Proportion (%)		
		At least some difficulties	At least lots of difficulties	Cannot do at all	At least some difficulties	At least lots of difficulties	Cannot do at all
Naunumea	439	59	19	10	13.4	4.3	2.3
Nanumaga	337	60	25	11	17.8	7.4	3.3
Niutao	454	84	24	5	18.5	5.3	1.1
Nui	430	63	28	10	14.7	6.5	2.3
Vaitupu	1,102	137	32	10	12.4	2.9	0.9
Nukufetau	461	63	12	6	13.7	2.6	1.3
Funafuti	**5,854**	**683**	**131**	**23**	**11.7**	**2.2**	**0.4**
Nukulaelae	235	82	11	-	34.9	4.7	-
Niulakita	40	2	-	-	5.0	-	-
Total	**9,352**	**1,233**	**282**	**75**	**13.2**	**3.0**	**0.8**
Outer Islands	**3,498**	**550**	**151**	**52**	**15.7**	**4.3**	**1.5**

The 'AT LEAST LOTS OF DIFFICULTIES' disability cut off

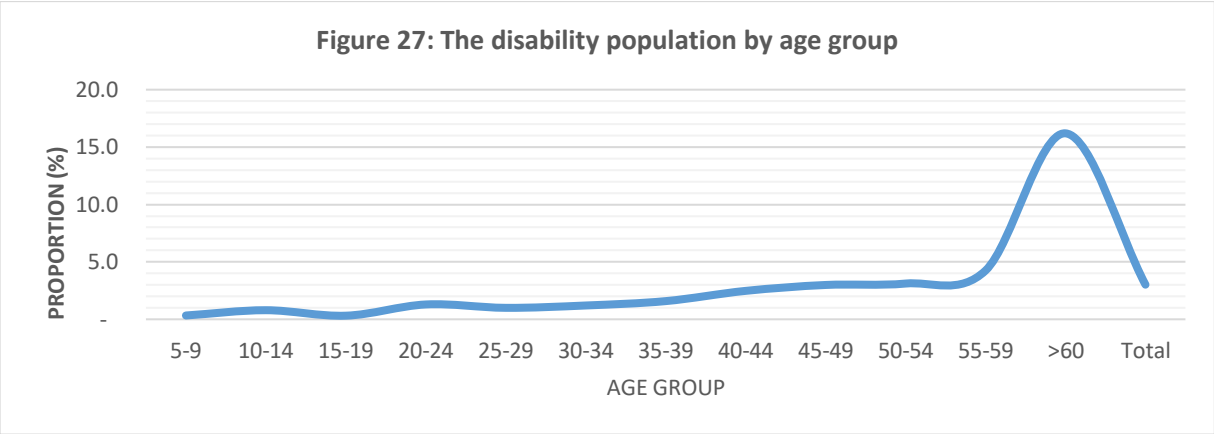
59. 'Walking' followed by 'self-care' were the most prevalent domains with number of people having disabilities estimated at 158 (1.7%) and 80 (0.9%) respectively. Nanumaga and Nui have the highest proportions for the 'walking' functional domains.

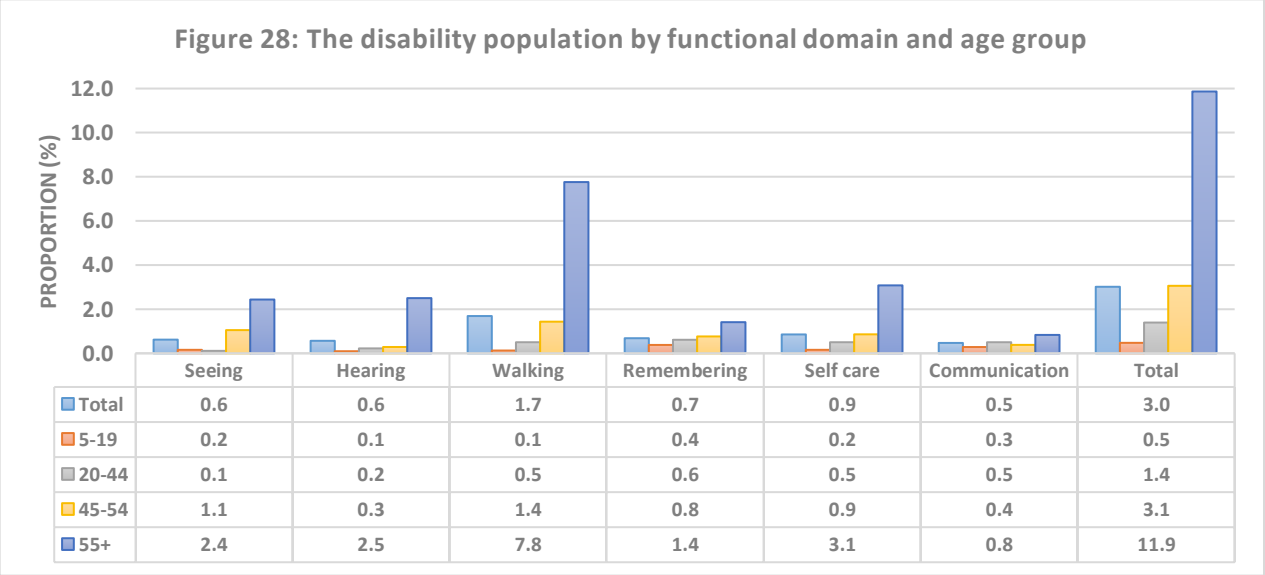
Table 8: The disability population by functional domain and island

Island	Population	Count						Proportion (%)					
		Seeing	Hearing	Walking	Remembering	Self care	Communication	Seeing	Hearing	Walking	Remembering	Self care	Communication
Naunumea	439	3	1	12	5	6	1	0.7	0.2	2.7	1.1	1.4	0.2
Nanumaga	337	4	8	17	4	4	3	1.2	2.4	5.0	1.2	1.2	0.9
Niutao	454	6	5	15	6	6	2	1.3	1.1	3.3	1.3	1.3	0.4
Nui	430	3	6	17	9	15	6	0.7	1.4	4.0	2.1	3.5	1.4
Vaitupu	1,102	3	7	15	6	9	6	0.3	0.6	1.4	0.5	0.8	0.5
Nukufetau	461	2	2	5	3	2	5	0.4	0.4	1.1	0.7	0.4	1.1
Funafuti	**5,854**	**37**	**23**	**68**	**28**	**36**	**19**	**0.6**	**0.4**	**1.2**	**0.5**	**0.6**	**0.3**
Nukulaelae	235	-	1	9	3	2	2	0.0	0.4	3.8	1.3	0.9	0.9
Niulakita	40	-	-	-	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0
Total	**9,352**	**58**	**53**	**158**	**64**	**80**	**44**	**0.6**	**0.6**	**1.7**	**0.7**	**0.9**	**0.5**
Outer Islands	**3,498**	**21**	**30**	**90**	**36**	**44**	**25**	**0.6**	**0.9**	**2.6**	**1.0**	**1.3**	**0.7**

60. The numbers are increasing with age. At age 55 years and above, 11.9% (185 persons) of total population are the disabled residents, a significant number as other age groups population reveals an average proportion of less than 3%.

61. And further investigating the disability people that do struggle with walking, apparently it is notice that 77% (121 out of 158) were old people, those of age 55 years and above





	Seeing	Hearing	Walking	Remembering	Self care	Communication	Total
Total	0.6	0.6	1.7	0.7	0.9	0.5	3.0
5-19	0.2	0.1	0.1	0.4	0.2	0.3	0.5
20-44	0.1	0.2	0.5	0.6	0.5	0.5	1.4
45-54	1.1	0.3	1.4	0.8	0.9	0.4	3.1
55+	2.4	2.5	7.8	1.4	3.1	0.8	11.9

Table 9: The disability population by functional domain and age group

		Count							Proportion (%)						
Age	Population	Seeing	Hearing	Walking	Remembering	Self care	Communication	TOTAL	Seeing	Hearing	Walking	Remembering	Self care	Communication	Total
5-9	1,200	2	-	2	4	2	3	4	0.2	-	0.2	0.3	0.2	0.3	0.3
10-14	1,009	1	2	-	7	2	5	8	0.1	0.2	-	0.7	0.2	0.5	0.8
15-19	951	2	1	2	1	1	1	3	0.2	0.1	0.2	0.1	0.1	0.1	0.3
20-24	928	2	4	2	4	4	6	12	0.2	0.4	0.2	0.4	0.4	0.6	1.3
25-29	900	-	1	4	5	4	6	9	-	0.1	0.4	0.6	0.4	0.7	1.0
30-34	747	1	1	3	6	2	2	9	0.1	0.1	0.4	0.8	0.3	0.3	1.2
35-39	568	1	2	3	3	4	1	9	0.2	0.4	0.5	0.5	0.7	0.2	1.6
40-44	444	-	-	6	4	4	3	11	-	-	1.4	0.9	0.9	0.7	2.5
45-49	468	5	-	7	4	4	2	14	1.1	-	1.5	0.9	0.9	0.4	3.0
50-54	578	6	3	8	4	5	2	18	1.0	0.5	1.4	0.7	0.9	0.3	3.1
55-59	565	7	5	16	1	7	1	24	1.2	0.9	2.8	0.2	1.2	0.2	4.2
>60	994	31	34	105	21	41	12	161	3.1	3.4	10.6	2.1	4.1	1.2	16.2
Total	**9,352**	**58**	**53**	**158**	**64**	**80**	**44**	**282**	**0.6**	**0.6**	**1.7**	**0.7**	**0.9**	**0.5**	**3.0**
5-19	3,160	5	3	4	12	5	9	15	0.2	0.1	0.1	0.4	0.2	0.3	0.5
20-44	3,587	4	8	18	22	18	18	50	0.1	0.2	0.5	0.6	0.5	0.5	1.4
45-54	1,046	11	3	15	8	9	4	32	1.1	0.3	1.4	0.8	0.9	0.4	3.1
55+	1,559	38	39	121	22	48	13	185	2.4	2.5	7.8	1.4	3.1	0.8	11.9

Figure below provides information of people who have ever attended school, including those currently attending, left school and those who had never attended school. The population categorized as left school however could be the drop outs or those who have completed school.

62. Aggregately there observed significantly low proportions (2.8%) of the disability population that are still schooling, 31.9% of the non-disability population are still attending school. A contributing factor is people with disabilities (PWDs) dropped out from school earlier than the non-disability population. After age 15 to 19 years, they are no longer attending school, while the non-disability population continued being academically active up to age in years 50 to 54

63. And opposing to findings with incidence to 'currently attending' school, a much higher proportions of disability population is noticed as 'never attended' school.

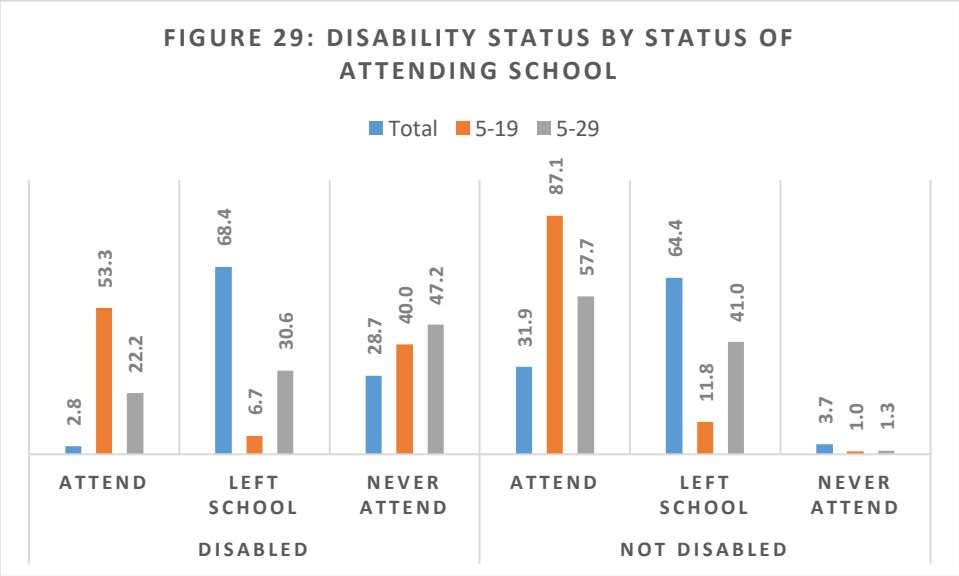


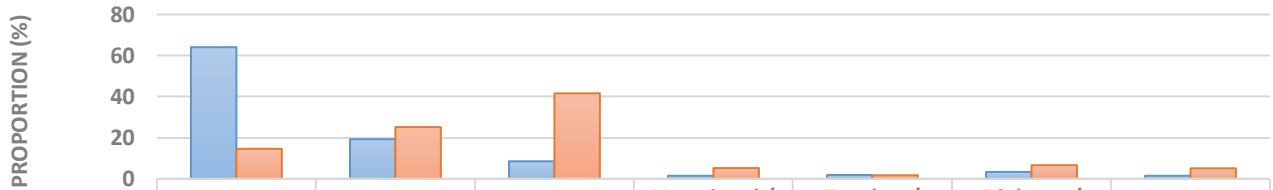
Table 10: Disability status by status of attending school

Age	Count								Proportion (%)							
	disabled				not disabled				disabled				not disabled			
	attend	left school	never attend	Total	attend	left school	never attend	Total	attend	left school	never attend	Total	attend	left school	never attend	Total
5-9	3		1	4	1,171	11	14	1,196	75.0	-	25.0	100	97.9	0.9	1.2	100
10-14	4		4	8	975	22	4	1,001	50.0	-	50.0	100	97.4	2.2	0.4	100
15-19	1	1	1	3	594	339	15	948	33.3	33.3	33.3	100	62.7	35.8	1.6	100
20-24	-	8	4	12	82	820	14	916	-	66.7	33.3	100	9.0	89.5	1.5	100
25-29	-	2	7	9	33	839	19	891	-	22.2	77.8	100	3.7	94.2	2.1	100
30-34	-	4	5	9	15	697	26	738	-	44.4	55.6	100	2.0	94.4	3.5	100
35-39	-	6	3	9	11	526	22	559	-	66.7	33.3	100	2.0	94.1	3.9	100
40-44	-	6	5	11	5	401	27	433	-	54.5	45.5	100	1.2	92.6	6.2	100
45-49	-	11	3	14	5	420	29	454	-	78.6	21.4	100	1.1	92.5	6.4	100
50-54	-	16	2	18	1	521	38	560	-	88.9	11.1	100	0.2	93.0	6.8	100
55-59	-	19	5	24	-	497	44	541	-	79.2	20.8	100	-	91.9	8.1	100
>60	-	120	41	161	-	751	82	833	-	74.5	25.5	100	-	90.2	9.8	100
Total	**8**	**193**	**81**	**282**	**2,892**	**5,844**	**334**	**9,070**	**2.8**	**68.4**	**28.7**	**100**	**31.9**	**64.4**	**3.7**	**100**
5-19	8	1	6	15	2,740	372	33	3,145	53.3	6.7	40.0	100	87.1	11.8	1.0	100
5-29	8	11	17	36	2,855	2,031	66	4,952	22.2	30.6	47.2	100	57.7	41.0	1.3	100

64. In terms of highest qualifications attainment of the population, majority of the people with disabilities achieved a much lower qualifications than those corresponding to non-disability population. A significant proportion of disability population (64.1%) do not have qualifications, not even accomplished the primary education level, and very few of them (8.5%) attained higher secondary education.

65. On the other hand, almost half of the non-disability population (41.6%) completed higher secondary education and low proportions do have no qualifications (14.6%)

Figure 30: Highest qualifications attained of resident population age 15+ by disability status



	No qualifications	Primary school / CTC	Form 4, 5, 6, 7	Vocational / Maritime / Trade	Teacher / Nurse / Medical	Diploma / Degree / Masters	Other
disabled	64.1	19.3	8.5	1.5	1.9	3.3	1.5
not disabled	14.6	25.2	41.6	5.2	1.7	6.6	5.1

The below table provides statistics based from the responses of adult population age 15 years and older towards the census Labour Force questions.

66. Extremely low incidence of people with disabilities do participate in the labour force or recognized as economically active. Only 14.4% and just above half (50.6%) of disability population and non-disability population relatively were considered active.

67. And as illustrated by the indicator referred to as employment population ratio, it basically reveals that only 11.1% of disability population are considered employed where a much higher ratio is recorded for the non-disability population, which is estimated at 36.2%.

68. The unemployment proportions and rates is low for disability population when compared to non-disability population. And as emphasized under the Economic Activity section, the unemployed population includes the adults age 15 years and older who were off the below listed conditions during a week prior census date;
    i. Look for work & available to work
    ii. Not looking for work but available to work

    The limited number of people with disabilities seeking and availing themselves for jobs seems a preference for majority of them to stay inactive. Such attitudes may causes from difficulties and aptitudes that they may believe do not suits the working or having a job environment. And as many of them concentrated at the inactive and home duties category without seeking and availing themselves for jobs, it is the main reason however of having lower indicators for unemployment rates.

Table 11: The Labour Force statistics by disability status of adults age 15 years and older

Category	Count		Proportions (%)	
	disabled	not disabled	disabled	not disabled
1. Labour Force				
1.1 Employed population	30	2,487	11.1	36.2
1.2 Unemployed population	9	992	3.3	14.4
2. Non-Labour Force			-	-
2.1 Student		580	-	8.4
2.2 Home duties	61	2,053	22.6	29.9
2.3 Retired	27	212	10.0	3.1
2.4 Inactive	143	549	53.0	8.0
Total	**270**	**6,873**	**100**	**100**
Labour Force Statistics (%)				
Labour force participation rate	14.4	50.6		
Employment population ratio	11.1	36.2		
Unemployment	23.1	28.5		

69. These vulnerable people are mainly looked after by their relatives, or 264 of them equivalent to 93.6% (Table 12). Additionally 62.4% (176 persons) were also receiving cash or in-kind assistances from their relatives followed by the Government with 34.4% of them (or 97 persons)

Table 12: Who usually look after these people

	Count	Proportion (%)
Relatives	264	93.6
Friends	-	-
Worker / Volunteer	3	1.1
Nobody	14	5.0
Other	1	0.4
Total	**282**	**100**

Table 13: The cash or in-kind assistances received from different sources

Sources	Count	Proportion (%)
Relative	176	62.4
Friends	19	6.7
Communities	24	8.5
Organization	21	7.4
Government	97	34.4
No resources	6	2.1

The 'CANNOT DO AT ALL' disability cut off

70. And exploring the disability population set at the 'CANNOT DO AT ALL' cut off, similar observations is noticed to those of the 'AT LEAST LOTS OF DIFFICULTIES' disability population. Again 'walking' followed by 'self-care' were the most prevalent domains of people having disabilities. Nanumea, Nanumaga and Nui recorded the highest proportions for the 'walking' functional domains.

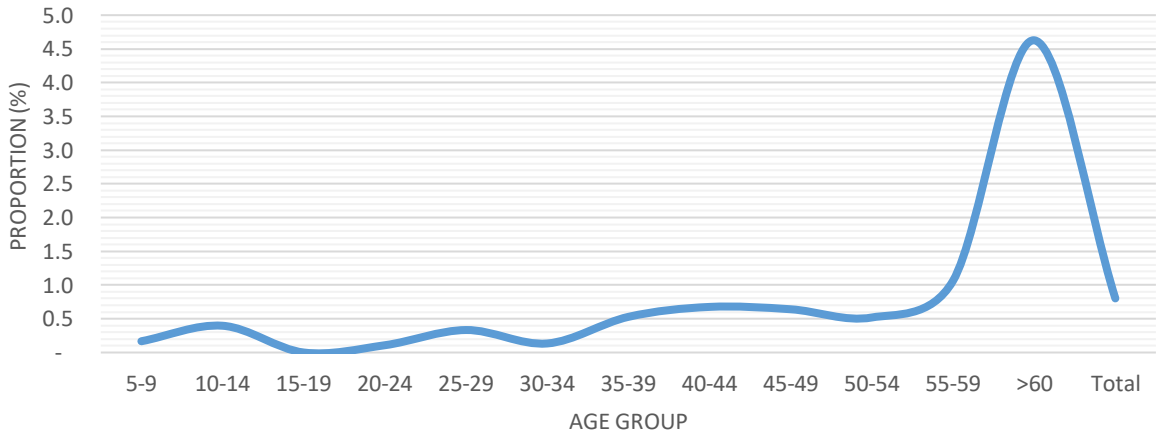
Table 14: The disability population by functional domain and islands

		Count						Proportion (%)					
Island	Population	Seeing	Hearing	Walking	Remembering	Self care	Communication	Seeing	Hearing	Walking	Remembering	Self care	Communication
Naunumea	439	-	-	8	2	3	1	-	-	1.8	0.5	0.7	0.2
Nanumaga	337	-	-	11	1	2	-	-	-	3.3	0.3	0.6	0.0
Niutao	454	1	2	2	3	3	2	0.2	0.4	0.4	0.7	0.7	0.4
Nui	430	-	-	7	2	8	3	-	-	1.6	0.5	1.9	0.7
Vaitupu	1,102	1	1	3	2	6	1	0.1	0.1	0.3	0.2	0.5	0.1
Nukufetau	461	-	1	3	1	2	1	-	0.2	0.7	0.2	0.4	0.2
Funafuti	**5,854**	**2**	**3**	**11**	**2**	**10**	**3**	**0.0**	**0.1**	**0.2**	**0.0**	**0.2**	**0.1**
Nukulaelae	235	-	-	-	-	-	-	-	-	-	-	-	0.0
Niulakita	40	-	-	-	-	-	-	-	-	-	-	-	0.0
Total	**9,352**	**4**	**7**	**45**	**13**	**34**	**11**	**0.0**	**0.1**	**0.5**	**0.1**	**0.4**	**0.1**
Outer Islands	**3,498**	**2**	**4**	**34**	**11**	**24**	**8**	**0.1**	**0.1**	**1.0**	**0.3**	**0.7**	**0.2**

71. The disability population is also increasing with age. Out of total disability population in this category, 69% (52 out of 75 persons) were the residents of age 55 years and above

72. Still 'walking' and 'self-care' are functional domains with again, the old population (those of age 55 years and older) dominating the numbers.

Figure 31: The disability population by age group



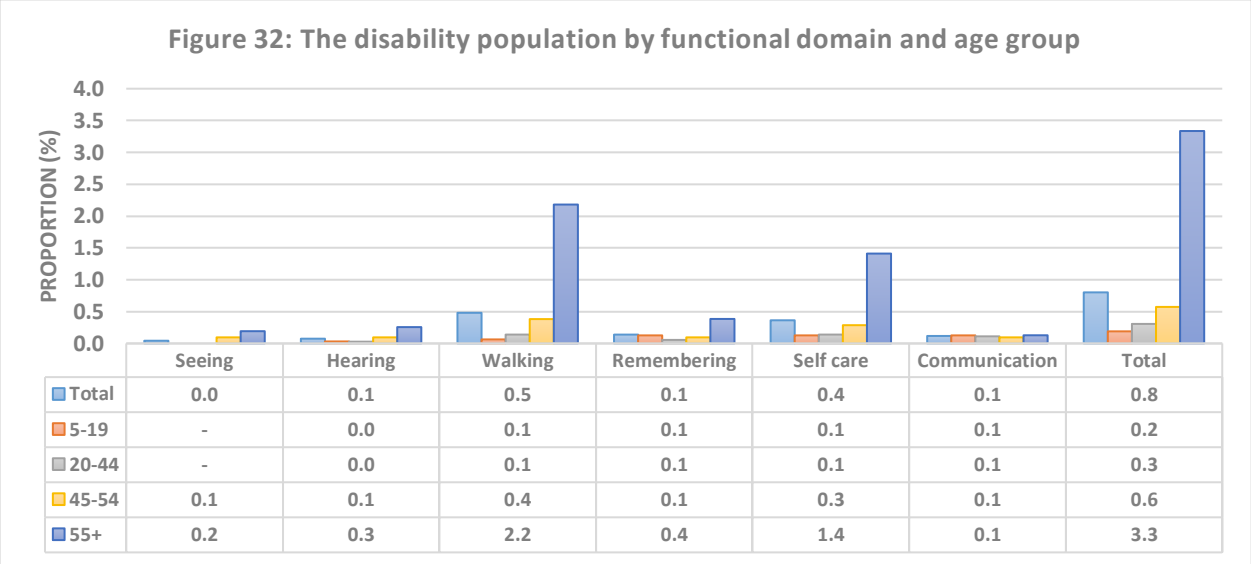


Table 15: The disability population by functional domain and age group

Age	Population	Count							Proportion (%)						
		Seeing	Hearing	Walking	Remembering	Self care	Communication	TOTAL	Seeing	Hearing	Walking	Remembering	Self care	Communication	Total
5-9	1,200	-	-	2	1	2	1	2	-	-	0.2	0.1	0.2	0.1	0.2
10-14	1,009	-	1	-	3	2	3	4	-	0.1	-	0.3	0.2	0.3	0.4
15-19	951	-	-	-	-	-	-		-	-	-	-	-	-	-
20-24	928	-	1	-	-	-	-	1	-	0.1	-	-	-	-	0.1
25-29	900	-	-	-	1	2	2	3	-	-	-	0.1	0.2	0.2	0.3
30-34	747	-	-	1	-	1	1	1	-	-	0.1	-	0.1	0.1	0.1
35-39	568	-	-	1	-	1	1	3	-	-	0.2	-	0.2	0.2	0.5
40-44	444	-	-	3	1	1	-	3	-	-	0.7	0.2	0.2	-	0.7
45-49	468	1	-	2	-	1	-	3	0.2	-	0.4	-	0.2	-	0.6
50-54	578	-	1	2	1	2	1	3	-	0.2	0.3	0.2	0.3	0.2	0.5
55-59	565	1	-	3	-	5	-	6	0.2	-	0.5	-	0.9	-	1.1
>60	994	2	4	31	6	17	2	46	0.2	0.4	3.1	0.6	1.7	0.2	4.6
Total	**9,352**	**4**	**7**	**45**	**13**	**34**	**11**	**75**	**0.0**	**0.1**	**0.5**	**0.1**	**0.4**	**0.1**	**0.8**
5-19	3,160	-	1	2	4	4	4	6	-	0.0	0.1	0.1	0.1	0.1	0.2
20-44	3,587	-	1	5	2	5	4	11	-	0.0	0.1	0.1	0.1	0.1	0.3
45-54	1,046	1	1	4	1	3	1	6	0.1	0.1	0.4	0.1	0.3	0.1	0.6
55+	1,559	3	4	34	6	22	2	52	0.2	0.3	2.2	0.4	1.4	0.1	3.3

73. Almost all of these disadvantaged people (73 from the 75 persons or 97.3%) were mainly looked after by their relatives (Table 16). And in terms of sourcing them with cash or in-kind assistances, 62.7% (47 persons) were receiving these assistances from relatives, and 42.7% (32 persons) were offering these supports by the Government.

Table 16: Who usually look after these people

	Count	Proportion (%)
Relatives	73	97.3
Friends	-	-
Worker / Volunteer	-	-
Nobody	2	2.7
Other	-	-
Total	**75**	**100**

Table 17: The cash or in-kind assistances received from different sources

Sources	Count	Proportion (%)
Relative	47	62.7
Friends	8	10.7
Communities	8	10.7
Organization	7	9.3
Government	32	42.7
No resources	-	-

HOUSEHOLD CHARACTERISTICS

Most censuses collected information on housing characteristics. The primary focus of this section is practically focuses on households characteristics. It produces analyses of features that were captured during the census. A '***household***' by statistical definition refers to a family or a group of people who normally eat and share things together.

Important notice: With the exception of the analysis provided in Table 14 and it related descriptive analysis, all the compilations fall under this section represents the analysis base from responses of the 1,626 total households.

The private households and composition

1. The number of households captured in the 2017 census is estimated to 1,688, a decrease from 1,761 recorded during the 2012 census. And 51.8% households are residing in Funafuti.

2. Family sizes is much higher for those living in Funafuti when compared to those of outer islands averagely, with sizes of 7.4 and 4.5 persons per family respectively. Nationally the average household size is 6.0%

3. Other than Funafuti, Vaitupu has the highest numeral households, followed by Niutao island.

Table 14: The private households and occupants enumerated in private households

Island	Population	Households		
		Count	Distribution (%)	Household size
Nanumea	495	108	6.4	4.6
Nanumaga	384	96	5.7	4.0
Niutao	499	130	7.7	3.8
Nui	494	99	5.9	5.0
Vaitupu	914	196	11.6	4.7
Nukufetau	531	116	6.9	4.6
Funafuti	6,477	874	51.8	7.4
Nukulaelae	260	57	3.4	4.6
Niulakita	43	12	0.7	3.6
Total	**10,097**	**1,688**	**100**	**6.0**
Funafuti	6,477	874	51.8	7.4
Outer Islands	3,620	814	48.2	4.5

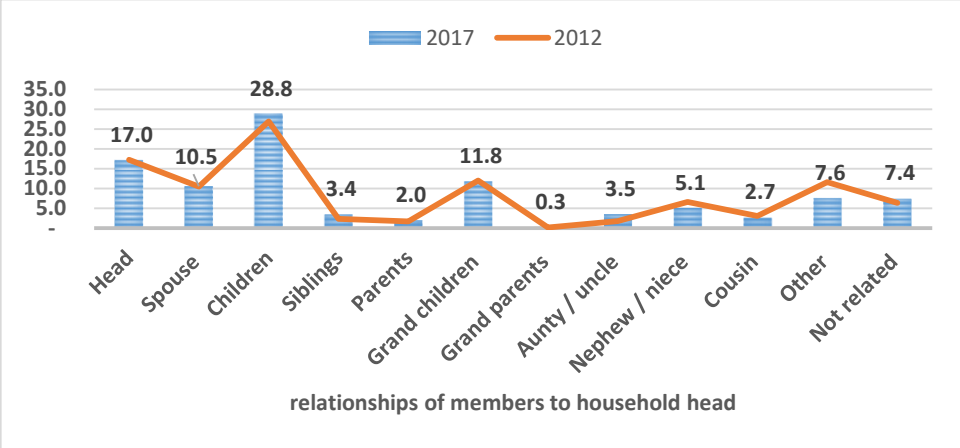
4. Similar compositions of household members is observed to both 2012 and 2017 censuses. Having relatives such as siblings, cousins, uncles/aunties, nephews/nieces and even the '**not related**' members, contributed to issues of households being recognized as extended families.

5. And just above half the population (58.3%) in 2017 were members of the so-called nuclear family. It was noticed at 56.2% during the 2012 census. The remaining 41.7% of the population however were recognized as '**other**' people who depend on their relatives, in terms of shelters and thus fitting in as part of others households. In reality and culture, the significant population of grandchildren (11.8%) and minimal counts of the grandparents (of only 26 persons) were to treat as part of the immediate family members responsibilities with the caretaking roles.

Table 15: People in private households and their relationship to household head

Members	Population		Proportions (%)	
	2012	2017	2012	2017
Immediate family	**5,747**	**5,565**	**56.2**	**58.3**
Head	1,761	1,626	17.2	17.0
Spouse	1,072	1,002	10.5	10.5
Children	2,748	2,744	26.9	28.8
Parents	166	193	1.6	2.0
Other	**4,471**	**3,977**	**43.8**	**41.7**
Grand children	1,229	1,123	12.0	11.8
Siblings	235	329	2.3	3.4
Aunty / uncle	177	336	1.7	3.5
Cousins	314	254	3.1	2.7
Grand parents	10	26	0.1	0.3
Nephew / niece	671	484	6.6	5.1
Not related	648	702	6.3	7.4
Other	1,187	723	11.6	7.6
Total	**10,218**	**9,542**	**100**	**100**

Figure 33: Proportion of the population and their relationship to household head



Tenure

6. Most families own the shelters they are residing, followed by those who are renting. Of all the households in Tuvalu, 70.2% (1,141 from 1,626) reported to own the dwellings they live in. The remaining 29.8% households however do not owned the houses, but were renting or were either staying "freely or inkind" arrangements

7. And as expected the census captured the listed facts;

- popularity of families owning the shelters they live in, at the outer islands (87.9%) as compared to 53.9% households in Funafuti
- popularity of families renting the shelters they live in, in Funafuti (41%) as compared to 7.6% households of outer islands

8. An increase in proportions of families renting the houses, and in particular those in Funafuti has increased to 41% from 36.7% estimated during 2012.

Table 16: Ownership of dwellings resided by households

Region	2017					2012				
	Own	rent	Arranged	Other	Total	Own	rent	Arranged	Other	Total
Total	**1,141**	**407**	**63**	**15**	**1,626**	**1,183**	**377**	**189**	**12**	**1,761**
Funafuti	458	348	34	9	849	443	310	85	7	845
Outer Islands	683	59	29	6	777	740	67	104	5	916
Proportions (%)										
Tuvalu	70.2	25.0	3.9	0.9	**100**	67.2	21.4	10.7	0.7	**100**
Funafuti	53.9	41.0	4.0	1.1	**100**	52.4	36.7	10.1	0.8	**100**
Outer Islands	87.9	7.6	3.7	0.8	**100**	80.8	7.3	11.4	0.5	**100**

9. Most rental dwellings were owned by the private or individual owner (46.9%) followed by Government (31.9%) and Kaupule (15%).

10. At the outer islands, only minimal number of households responded as renting where they are mostly renting to Kaupule

Table 17: The owners of rental dwellings

Region	2017 Census						2012 Census					
	Gov't	Kaupule	Cooperation	Private	Other	Total	Gov't	Kaupule	Cooperation	Private	Other	Total
Total	**130**	**61**	**4**	**191**	**21**	**407**	**146**	**59**	**9**	**154**	**9**	**377**
Funafuti	113	27	4	186	18	**348**	134	6	9	152	9	**310**
Outer Islands	17	34	-	5	3	**59**	12	53	-	2	-	**67**
	Proportion of total category (%)											
Tuvalu	31.9	15.0	1.0	46.9	5.2	**100**	38.7	15.6	2.4	40.8	2.4	**100**
Funafuti	32.5	7.8	1.1	53.4	5.2	**100**	43.2	1.9	2.9	49.0	2.9	**100**
Outer Islands	28.8	57.6	-	8.5	5.1	**100**	17.9	79.1	-	3.0	-	**100**

The households who stated as owning the place they are residing and those who were just living the places due to arrangements sorted, or live freely were further questioned of the type of land ownership on which their houses are locating

11. Out of all these 1,204 households, 950 (78.9%) households do own the lands, 60 and 63 households were leasing the lands from government and private owners

12. Popularity of families owning the lands where their shelters are locating, at the outer islands (80.1%) as compared to only 38.6% households in Funafuti

Table 18: Ownership of lands on which the main houses of households were built

Region	2017 Census						2012 Census					
	Own	Gov't	Private	Arranged	Others	Total	Own	Gov't	Private	Arranged	Others	Total
Total	**950**	**60**	**63**	**111**	**20**	**1,204**	**920**	**62**	**37**	**243**	**110**	**1,372**
Funafuti	328	53	39	70	2	**492**	291	62	24	150	1	**528**
Outer Islands	622	7	24	41	18	**712**	629	-	13	93	109	**844**
	Proportion of total category (%)											
Tuvalu	78.9	5.0	5.2	9.2	1.7	**100**	67.1	4.5	2.7	17.7	8.0	**100**
Funafuti	66.7	10.8	7.9	14.2	0.4	**100**	55.1	11.7	4.5	28.4	0.2	**100**
Outer Islands	87.4	1.0	3.4	5.8	2.5	**100**	74.5	-	1.5	11.0	12.9	**100**
	Proportion of total households (%)											
Tuvalu	58.4	3.7	3.9	6.8	1.2	**74.0**	52.2	3.5	2.1	13.8	6.2	**77.9**
Funafuti	38.6	6.2	4.6	8.2	0.2	**58.0**	34.4	7.3	2.8	17.8	0.1	**62.5**
Outer Islands	80.1	0.9	3.1	5.3	2.3	**91.6**	68.7	-	1.4	10.2	11.9	**92.1**

Principle cooking fuel

Information on the type of fuel used for cooking is collected as another measure of the socioeconomic status of the household. The use of some cooking fuels can also have adverse health consequences. The households were asked about the source of cooking energy they mainly used. Table 19 presents the summary results for the two censuses, the 2012 and 2017.

13. Of the 1,626 households in Tuvalu, 1,143 (70.3%) use gas (LPG) as the main source of cooking fuel. A vastly increased from 48.7% households observed during 2012 to 70.3%. This cooking energy has become mostly common and starting to notice during the 2012 census. In earlier years it used to be kerosene.

14. The use of open fire as the main source of cooking energy, has declined during the inter-censal period of 5 years. Examining the households during this 5 years lapse that used woods and coconut parts as the main cooking energy source, the proportions is reduced from 40.4%% to 17.8% nationally, and reduction from 72.2% to 36.2% for outer islands. It is the first census to evidently capture the transition from using open fire to LPG gas at the outer islands.

15. Only 39 households used electricity for cooking, a slight increase from 0.5% to 2.4% households observed of these type during the inter-censal period.

Table 19: The main cooking fuels

Region	2017 Census							2012 Census						
	Electricity	Gas (LPG, Butane)	Kerosene	Wood	Coconut parts	Other	Total	Electricity	Gas (LPG, Butane)	Kerosene	Wood	Coconut parts	Other	Total
Total	**39**	**1,143**	**151**	**184**	**105**	**4**	**1,626**	**8**	**857**	**177**	**477**	**234**	**8**	**1,761**
Funafuti	19	766	53	6	2	3	**849**	2	686	101	44	6	6	**845**
Outer Islands	20	377	98	178	103	1	**777**	6	171	76	433	228	2	**916**
	Proportions (%)													
Tuvalu	2.4	70.3	9.3	11.3	6.5	0.2	**100**	0.5	48.7	10.1	27.1	13.3	0.5	**100**
Funafuti	2.2	90.2	6.2	0.7	0.2	0.4	**100**	0.2	81.2	12.0	5.2	0.7	0.7	**100**
Outer Islands	2.6	48.5	12.6	22.9	13.3	0.1	**100**	0.7	18.7	8.3	47.3	24.9	0.2	**100**

Sources of Lighting

16. Almost all households (totaled to 1,580 or 97.2%) use electricity on a public grid for lighting. The other sources are not to discuss provided their smallness in numbers.

Table 20: The source of lighting

Region	2017 Census						2012 Census					
	Electricity from public grid	Solar rooftop panel	Lamp	Private generator	Other	Total	Electricity from public grid	Solar rooftop panel	Lamp	Private generator	Other	Total
Total	**1,580**	**14**	**22**	**4**	**6**	**1,626**	**1,677**	**42**	**12**	**1**	**29**	**1,761**
Funafuti	835	6	5	1	2	849	814	20	2	1	8	845
Outer Islands	745	8	17	3	4	777	863	22	10	-	21	916
	Proportions (%)											
Tuvalu	97.2	0.9	1.4	0.2	0.4	**100**	95.2	2.4	0.7	0.1	1.6	**100**
Funafuti	98.4	0.7	0.6	0.1	0.2	**100**	96.3	2.4	0.2	0.1	0.9	**100**
Outer Islands	95.9	1.0	2.2	0.4	0.5	**100**	94.2	2.4	1.1	-	2.3	**100**

Water and Sanitation

The analysis of this specific section illustrates the responds of households when they were interviewed to provide information of the main source of drinking water and their access to sanitation facilities.

The volumes of water storages own by households were part of the collections of the census.

The categories 'piped into dwelling' and 'piped into yards' are simply for families who depend on their own water storages (i.e. tanks and cisterns) to supply them with drinking water.

17. Almost all private households (i.e. 62.5% + 35.7%) used their own storages as the main source of drinking water. Water piped into dwelling is the ordinary method of supplying water in all regions.

18. The two censuses showed the transition from collecting water from outside storages to the directly piping of water into dwellings at the outer islands. The proportion of households with such type has significantly increased from 17.7% to 59.1%

19. Still there are households (0.3%) that are depending on communities or neighbors. These households together with those categorizing as 'other' may not own any water storages to cater their need of having water.

20. The majority of households in Tuvalu had piped water whether or not the water was piped to the inside of their unit. Piping water inside of dwellings occurred predominantly on Funafuti with 65.6% or 557 households, 459 households at the outer islands

Table 21: Main source of household drinking water

Region	2017 Census					2012 Census				
	Piped into dwelling	Piped into yard	Community / Neighbor	Other	Total	Piped into dwelling	Piped into yard	Community / Neighbor	Other	Total
Total	**1,016**	**580**	**5**	**25**	**1,626**	**586**	**1,155**	**17**	**3**	**1,761**
Funafuti	557	273	1	18	849	424	415	4	2	845
Outer Islands	459	307	4	7	777	162	740	13	1	916
	Proportions (%)									
Tuvalu	62.5	35.7	0.3	1.5	**100**	33.3	65.6	1.0	0.2	**100**
Funafuti	65.6	32.2	0.1	2.1	**100**	50.2	49.1	0.5	0.2	**100**
Outer Islands	59.1	39.5	0.5	0.9	**100**	17.7	80.8	1.4	0.1	**100**

21. Averagely, a household in Tuvalu is estimated to have storages volume of approximately 4,262 gallons during this census. It was estimated at 5,396 gallons.

Table 22: Volumes of water storages of households

Region	2017 Census		2012 Census	
	Litres	UK gallons	Litres	UK gallons
	Total			
Tuvalu	31,506,151	6,929,998	43,201,625	9,502,499
Funafuti	16,310,385	3,587,583	22,063,086	4,852,930
Outer Islands	15,195,767	3,342,415	21,138,539	4,649,569
	per household			
Tuvalu	19,376	4,262	24,532	5,396
Funafuti	19,211	4,226	26,110	5,743
Outer Islands	19,557	4,302	23,077	5,076

22. The census recorded a total of 5.1% households (83 in absolute numbers) that do not have toilet facilities. A little higher of proportions of such households accounted for outer islands with 6.2% (48 households) where Funafuti has 4.1% or 35 households

23. Nationally 1,438 households (88.4%) had a flush toilet (Table 23) and very few used any other type of toilet. Funafuti and outer islands do have about the same proportions of households (88%) having the flush types.

24. Almost all households in Funafuti and outer islands had septic tanks. Of the 1,438 households reporting toilet discharge, 1,379 (96%) reported the discharge going into a septic tank. The use of dug pits or other means was minimal.

25. Of the 63 households reporting using a latrine, 43 were vent improved pits (VIP) compared to 17 for pit latrines covered by a slab, and only 3 with pit latrines without slabs. Nanumea, Nanumaga, Niutao, and Nui had no latrines at all (refer to census tables H3). And, the Outer Islands had only a few.

Table 23: Number of private households by island and toilet type, discharged practices and latrine type

	COUNT (%)			PROPORTION (%)		
	Total	Outer islands	Funafuti	Total	Outer islands	Funafuti
Toilet type						
Total	**1,626**	**777**	**849**	**100**	**100**	**100**
Flush / pour flush	1,438	685	753	88.4	88.2	88.7
Pit latrine	63	31	32	3.9	4.0	3.8
Composit toilet	29	8	21	1.8	1.0	2.5
No facility / bush / beach / ocean	83	48	35	5.1	6.2	4.1
Other	13	5	8	0.8	0.6	0.9
The discharged types for households with "Flush / pour flush" toilet type						
Total	**1,438**	**685**	**753**	**100**	**100**	**100**
Septic tank	1,379	630	749	95.9	92.0	99.5
Dug pit	54	52	2	3.8	7.6	0.3
Ocean	2	2	0	0.1	0.3	0.0
Other	3	1	2	0.2	0.1	0.3
Latrine type						
Total	**63**	**31**	**32**	**100**	**100**	**100**
Ventilated improved pit latrine	43	15	28	68.3	48.4	87.5
Pit latrine with slab	17	14	3	27.0	45.2	9.4
Latrine to open pit	3	2	1	4.8	6.5	3.1

The solid waste services

26. Almost 1,000 (60.7%) were either "fully satisfied" or "satisfied" of the solid waste service. While about 19.6% households were neutral, another 320 (19.7%) or so were either "disappointed" or "completely disappointed". The distribution across the islands was also pretty balanced in the same way. Residents of Nanumaga and Nukulaelae were particularly satisfied, and those on Nukufetau, Vaitupu and Niutao were disappointed mostly (refer to Census tables H5).

Table 24: Rating of solid waste services by households

Region	Fully satisfied	Satisfied	Neutral	Disappointed	Completely disappointed	Total
Total	**508**	**479**	**319**	**277**	**43**	**1,626**
Funafuti	213	322	223	82	9	849
Outer Islands	295	157	96	195	34	777
	Proportion (%)					
Tuvalu	31.2	29.5	19.6	17.0	2.6	**100**
Funafuti	25.1	37.9	26.3	9.7	1.1	**100**
Outer Islands	38.0	20.2	12.4	25.1	4.4	**100**

27. Of the 320 households expressing disappointment in the waste service, 206 (12.7%) cited "rubbish collection times" as causing the most disappointment and therefore need immediate improvement to it. Customer service was the next most cited reason followed by community rubbish bins.

28. Households at outer islands sound more frustrations with the waste services, and especially with the collections practices of solid waste as indicated.

Table 25: Services that need immediate improvements

Region	Collections times	Provisions of bins	Customer service	Dumping locations	other	Total
Total	**206**	**37**	**67**	**3**	**7**	**320**
Funafuti	42	23	23	-	3	91
Outer Islands	164	14	44	3	4	229
	Proportion of total category (%)					
Tuvalu	**64.4**	**11.6**	**20.9**	**0.9**	**2.2**	**100**
Funafuti	46.2	25.3	25.3	-	3.3	**100**
Outer Islands	71.6	6.1	19.2	1.3	1.7	**100**
	Proportion of total households (%)					
Tuvalu	**12.7**	**2.3**	**4.1**	**0.2**	**0.4**	**19.7**
Funafuti	4.9	2.7	2.7	-	0.4	**10.7**
Outer Islands	21.1	1.8	5.7	0.4	0.5	**29.5**

29. 80.8% (1,314) households indicated that they were issued a rubbish bin by Kaupule. And as expected, Funatfuti had the most at 633 (or every 3 out of 4 households).

Table 26: Households whether issued or not rubbish bins issued by Kaupule

Region	Issued	Not issued	Total
Total	**1,314**	**312**	**1,626**
Funafuti	633	216	849
Outer Islands	681	96	777
	Proportion (%)		
Tuvalu	80.8	19.2	**100**
Funafuti	74.6	25.4	**100**
Outer Islands	87.6	12.4	**100**

INFORMATION AND COMMUNICATION TECHNOLOGIES

There has been a general increase in the number of ICT devices in use in the country in the last decade or so. In private households, tablet computers and laptops became abundant as their prices dropped. Students are now using their own laptops for schoolwork compared to queuing up at the labs for a workstation to become available. In most cases, the number of goods or access to ICT services is concentrated on Funafuti.

30. Radio is still the main device accessed by households followed by mobile phones and computers with 88.6%, 69.7% and 60.9% households accessing them respectively.

31. The two censuses illustrates a considerable increase in accessing mobile phones, computers and internet connections by households in all regions.

32. All ICT devices except the radio, households on Funafuti were more likely to possess these goods than those in the outer islands.

Table 27: ICT devices accessed from homes of households

Region	2017 Census						2012 Census					
	radio	mobile phone	fixed telephone	TV connection	desktop / laptop	Internet connection	radio	mobile phone	fixed telephone	TV connection	desktop / laptop	Internet connection
Total	**1,441**	**1,134**	**643**	**335**	**991**	**599**	**1,238**	**781**	**674**	**257**	**629**	**173**
Funafuti	692	765	321	255	656	351	674	628	419	220	504	159
Outer Islands	749	369	322	80	335	248	564	153	255	37	125	14
	Proportion (%)											
Tuvalu	88.6	69.7	39.5	20.6	60.9	36.8	76.1	48.0	41.5	15.8	38.7	10.6
Funafuti	81.5	90.1	37.8	30.0	77.3	41.3	79.4	74.0	49.4	25.9	59.4	18.7
Outer Islands	96.4	47.5	41.4	10.3	43.1	31.9	72.6	19.7	32.8	4.8	16.1	1.8

33. Over half of residents aged 6 years and above have used a mobile (67.5%) and computer (57.5%) in the past 12 months. And almost half (48.7%) of them have used the internet connection. At the time of the census, not all islands do have a mobile service.

34. A notable increase in population making use of the 3 categorical service depicts in Table 28 over the 5 years and in all the regions. It shows the enormous advances in infrastructure in Tuvalu over the 5-year period Bulk of these people are those living in Funafuti.

Table 28: Aged 6 years and above who used a mobile phone in the last 12 months

Islands	2017 Census			2012 Census		
	mobile	computer	internet	mobile	computer	internet
Total	**6,149**	**5,231**	**4,431**	**5,181**	**3,750**	**3,215**
Funafuti	4,387	3,781	3,298	3,715	2,787	2,455
Outer Islands	1,762	1,450	1,133	1,466	963	760
	Proportion (%)					
Tuvalu	67.5	57.5	48.7	56.9	41.2	35.3
Funafuti	77.0	66.3	57.9	65.2	48.9	43.1
Outer Islands	51.7	42.6	33.3	43.0	28.3	22.3

Source of income

35. Bulk of the households are sustained by wages & salaries. A total of 1,220 (75% or 3 in every 4) households had at least a member working to earn salaries.

36. Income sourced as the remittances, land rent (leased), the handicrafts sales and businesses are other incomes that are noticed to receive by number of households with totals of 423 (26%), 358 (22%), 277 (17%) and 276 (17%) correspondingly.

37. And looking at the regions with the stated income source, only the wages & salaries is observed to highly receive by households in Funafuti. The others therefore were to receive and relied mainly by those from outer islands.

Table 29: Households receiving types of income

Income	2017 Census			2012 Census			2017 Census			2012 Census		
	Total	Funafuti	Outer island	Total	Funafuti	Outer island	Total	Funafuti	Outer island	Total	Funafuti	Outer island
	count						Proportions (%)					
Wages & salary	**1,220**	752	468	**1,233**	739	494	**75.0**	88.6	60.2	**70.0**	87.5	53.9
Remittance	**423**	149	274	**701**	303	398	**26.0**	17.6	35.3	**39.8**	35.9	43.4
Rent of land	**358**	96	262	**616**	240	376	**22.0**	11.3	33.7	**35.0**	28.4	41.0
Handicraft sales	**277**	97	180	**405**	163	242	**17.0**	11.4	23.2	**23.0**	19.3	26.4
Own business	**276**	133	143	**368**	223	145	**17.0**	15.7	18.4	**20.9**	26.4	15.8
Senior citizens pay	**149**	55	94	**260**	102	158	**9.2**	6.5	12.1	**14.8**	12.1	17.2
Livestock / animal sales	**113**	23	90	**65**	13	52	**6.9**	2.7	11.6	**3.7**	1.5	5.7
Fish sales	**108**	26	82	**162**	61	101	**6.6**	3.1	10.6	**9.2**	7.2	11.0
Rent of building	**107**	99	8	**98**	92	6	**6.6**	11.7	1.0	**5.6**	10.9	0.7
Gifts	**88**	10	78	**156**	75	81	**5.4**	1.2	10.0	**8.9**	8.9	8.8
Crop sales	**80**	24	56	**50**	14	36	**4.9**	2.8	7.2	**2.8**	1.7	3.9
Pensions	**61**	33	28	**10**	7	3	**3.8**	3.9	3.6	**0.6**	0.8	0.3
Investment	**33**	2	31	**450**	227	223	**2.0**	0.2	4.0	**25.6**	26.9	24.3
Other source of income	**25**	11	14	**60**	34	26	**1.5**	1.3	1.8	**3.4**	4.0	2.8
Rent of equipment	**10**	3	7	**41**	32	9	**0.6**	0.4	0.9	**2.3**	3.8	1.0

38. Most wage earners were paid fortnightly but those getting remittances received them every 2 to 6 months (200) or monthly (134). Rents for land were usually paid annually. And those with an "own business" were most often paid on weekly basis.

Table 30: Frequencies of income receiving by households, 2017 Census

Income	Weekly	Fortnightly	Monthly	every 2 months	every 3 months	every 4 months	Twice a year	annually	Total
Wages / salary	68	1,081	39	13	4	7	4	4	**1,220**
Remittances	13	45	134	66	50	32	52	31	**423**
Rent of building	2	2	101	-	-	-	-	2	**107**
Rent of land	1	3	11	-	-	-	14	329	**358**
Rent of equipment	7	-	2	1	-	-	-	-	**10**
Senior citizens pay	-	3	144	1	1	-	-	-	**149**
Pensions	-	10	47	-	-	2	-	2	**61**
Handicraft sales	61	20	86	40	17	19	21	13	**277**
Fish sales	69	7	13	9	2	4	2	2	**108**
Livestock sales	4	6	8	14	4	11	43	23	**113**
Crop sales	18	6	14	6	10	4	16	6	**80**
Gifts	3	4	12	12	9	9	28	11	**88**
Own business	222	21	25	5	1	-	1	1	**276**
Investments	2	10	3	7	2	-	2	7	**33**
Other	-	-	15	3	4	2	1	-	**25**
	Proportion (%)								
Wages / salary	4.2	66.5	2.4	0.8	0.2	0.4	0.2	0.2	**75.0**
Remittances	0.8	2.8	8.2	4.1	3.1	2.0	3.2	1.9	**26.0**
Rent of building	0.1	0.1	6.2	-	-	-	-	0.1	**6.6**
Rent of land	0.1	0.2	0.7	-	-	-	0.9	20.2	**22.0**
Rent of equipment	0.4	-	0.1	0.1	-	-	-	-	**0.6**
Senior citizens pay	-	0.2	8.9	0.1	0.1	-	-	-	**9.2**
Pensions	-	0.6	2.9	-	-	0.1	-	0.1	**3.8**
Handicraft sales	3.8	1.2	5.3	2.5	1.0	1.2	1.3	0.8	**17.0**
Fish sales	4.2	0.4	0.8	0.6	0.1	0.2	0.1	0.1	**6.6**
Livestock sales	0.2	0.4	0.5	0.9	0.2	0.7	2.6	1.4	**6.9**
Crop sales	1.1	0.4	0.9	0.4	0.6	0.2	1.0	0.4	**4.9**
Gifts	0.2	0.2	0.7	0.7	0.6	0.6	1.7	0.7	**5.4**
Own business	13.7	1.3	1.5	0.3	0.1	-	0.1	0.1	**17.0**
Investments	0.1	0.6	0.2	0.4	0.1	-	0.1	0.4	**2.0**
Other	-	-	0.9	0.2	0.2	0.1	0.1	-	**1.5**

Remittances

39. As shown earlier, 40% of households received income from remittances. This ranged from 57% of households on Niulakita to 31% of households on Nukulaelae.

40. About half of all remittances in Tuvalu came from overseas (51%). While 77% of remittances received on Funafuti came from outside Tuvalu, only 31% of remittances received by the outer islands originated from outside Tuvalu. Forty-three percent of households in the outer islands that received remittances obtained them from within Tuvalu. Only 11% of remittances received from households on Funafuti came from within Tuvalu.

41. Slightly more than half of all remittances were received monthly (52%), and 14% of households received remittances every 2-6 months. Only 3% households received once per year, although about one third (31%) received occasionally. In general, households in the outer islands received their remittances less often than those on Funafuti.

42. While 194 (11.9%) households received remittance income from inside Tuvalu, another 185 (11.4%) received them from outside Tuvalu, and 44 (2.4%) households received remittances from both inside and outside Tuvalu.

Table 31: Households receiving remittances by island

Region	Within Tuvalu	Overseas	Both	Total
Tuvalu	**194**	**185**	**44**	**423**
Funafuti	31	106	12	149
Outer islands	163	79	32	274
	Proportion of total category (%)			
Tuvalu	**45.9**	**43.7**	**10.4**	**100**
Funafuti	20.8	71.1	8.1	100
Outer islands	59.5	28.8	11.7	100
	Proportion of total households (%)			
Tuvalu	**11.9**	**11.4**	**2.7**	**26.0**
Funafuti	3.7	12.5	1.4	17.6
Outer islands	21.0	10.2	4.1	35.3

Households engaged in buying & selling fish

Tuvalu 2017 census collect information on whether households do engaged in buying and selling the fish in a month prior to census date. Households were then asked further questions of how frequent were they buying or selling the fish if they did.

43. Evidently revealed in this census the interest of households were mostly on the pelagic fish. Totaled to 852 households (more than half) were buying pelagic fish.

44. 246 (15.1%) reported of buying reef fish, and only 44 were reported to engaged with the sales, with Funafuti having 170 (20%) of it total households.

45. Only 83 units were buying deep sea fish, with Nukufetau having the largest number of them.

46. And as would be expected, more households do buy fish than those selling them

The analysis seems to under report the households in Funafuti who may have engaged in these activities. The presence of purse sein and fish carriers in Funafuti has noticed of reducing the occurrences of fish sales and buying as families usually grabbed fish from these vessels for free. This could be a contributing factor of this under reporting should there be these vessels present in Funafuti during a month preceding to census date.

Table 32: Households buying and selling fish in 30 days preceding the census

Island	Buying			Selling		
	reef fish	pelagic fish	deep sea fish	reef fish	pelagic fish	deep sea fish
Total	**246**	**852**	**83**	**44**	**85**	**20**
Funafuti	170	330	30	15	19	1
Outer Islands	76	522	53	29	66	19
Proportions (%)						
Tuvalu	15.1	52.4	5.1	2.7	5.2	1.2
Funafuti	20.0	38.9	3.5	1.8	2.2	0.1
Outer Islands	9.8	67.2	6.8	3.7	8.5	2.4

47. The majority of the buying practices were just not more than 4 times per households in a month.

Table 33: Households with frequencies of buying and selling fish during the past 30 days

Island	Buying			Selling		
	reef fish	pelagic fish	deep sea fish	reef fish	pelagic fish	deep sea fish
Total	**246**	**852**	**83**	**44**	**83**	**20**
1 - 4 times	224	743	74	31	44	13
5 - 9 times	17	90	7	9	21	6
10 - 14 times	**2**	**13**	**1**	**1**	**6**	**-**
15 - 19 times	1	1	-	2	2	1
20+ times	2	5	1	1	10	-
Proportions (%)						
Total	**15.1**	**52.4**	**5.1**	**2.7**	**5.1**	**1.2**
1 - 4 times	13.8	45.7	4.6	1.9	2.7	0.8
5 - 9 times	1.0	5.5	0.4	0.6	1.3	0.4
10 - 14 times	0.1	0.8	0.1	0.1	0.4	-
15 - 19 times	0.1	0.1	-	0.1	0.1	0.1
20+ times	0.1	0.3	0.1	0.1	0.6	-

AGRCULTURE AND LIVESTOCK

Crops

Being an atoll country Tuvalu has known of having a tough environment leading in having a narrow based vegetation with very limited livestock species. Much of Tuvalu's agriculture production is dominated by subsistence farming and raising traditional crops. The tree crops known to be coconut, breadfruit, bananas, and pandanus along with the root crop pulaka (or swamp taro) are very important traditional food crops. Advancing of farming systems with introduction of exotic food crops and livestock has gradually progressing over the years

48. Still people favored of cultivating the traditional tree crops. The crops grown are the more traditional food crops of Tuvalu. The largest number of households were growing or harvesting bananas (776 households) followed by coconuts (694), pawpaw (624), and breadfruit (540). And

especially those of the outer islands with more than half of households engaging in such a crops cultivation

49. And provided that about half of households (48%) in Funafuti were from the outer islands, they are expected to not own land to cultivate such food crops and resulted in lower percentage of households cultivating these traditional crops in Funafuti.

50. The low production in cassava is because it is a more recently introduced exotic root crop in Tuvalu.

Table 34: Households growing various crops 12 months prior to census

Region	Banana	Coconut	Breadfruit	Pandanus	Pulaka	Taro	Pumpkin	Bele	Sweet potato	Felo	Cassava
Tuvalu	**776**	**694**	**540**	**395**	**394**	**300**	**231**	**134**	**132**	**82**	**59**
Funafuti	263	159	110	66	11	20	54	62	16	7	12
Outer Islands	513	535	430	329	383	280	177	72	116	75	47
						Proportion (%)					
Tuvalu	**47.7**	**42.7**	**33.2**	**24.3**	**24.2**	**18.5**	**14.2**	**8.2**	**8.1**	**5.0**	**3.6**
Funafuti	31.0	18.7	13.0	7.8	1.3	2.4	6.4	7.3	1.9	0.8	1.4
Outer Islands	66.0	68.9	55.3	42.3	49.3	36.0	22.8	9.3	14.9	9.7	6.0

51. With the exception of 'pawpaw' about the same proportions of households in Funafuti and the outer islands grew these introduced food crops.

Table 35: Households growing or harvesting the introduced crops

Region	Pawpaw	Cucumber	Tomato	Capsicum	Chilli	Melon	Laukatafa	Lettuce	Beans	Egg plant	Spring onion
Tuvalu	**624**	**163**	**106**	**68**	**59**	**30**	**30**	**19**	**11**	**9**	**4**
Funafuti	184	82	53	34	37	7	-	12	3	4	2
Outer Islands	440	81	53	34	22	23	30	7	8	5	2
						Proportions (%)					
Tuvalu	**38.4**	**10.0**	**6.5**	**4.2**	**3.6**	**1.8**	**1.8**	**1.2**	**0.7**	**0.6**	**0.2**
Funafuti	21.7	9.7	6.2	4.0	4.4	0.8	-	1.4	0.4	0.5	0.2
Outer Islands	56.6	10.4	6.8	4.4	2.8	3.0	3.9	0.9	1.0	0.6	0.3

For households, there are three main purposes of growing these crops: 'subsistence', 'commercial' and 'both subsistence and commercial (semi commercial farming - households selling excess production from their home garden).' However in Table 36, the category for 'commercial' and 'both subsistence and commercial were combined as 'other' category as too few households responded as part of them.

52. Analyzing the crops that were mainly grow or harvest by households, the census reflected that they were purposely grow and harvest for subsistence agriculture with very little semi-commercial purposes.

Table 36: Purpose of growing or harvesting the crops by households

Crop	Banana	Coconut	Pawpaw	Breadfruit	Toddy	Pandanus	Pulaka	Taro	Pumpkin	Cabbage	Cucumber
Households numbers	776	694	624	540	437	395	394	300	231	201	163
subsistence	95.7	98.3	96.8	98.1	94.1	98.0	96.4	96.0	91.8	92.5	91.4
others	4.0	1.7	3.0	1.9	5.7	2.0	3.6	3.3	7.4	7.5	8.0

Toddy

Toddy is a very healthy drink and without it, households will spend their income on imported sugar as an alternative. Toddy is both a fresh drink but can also be fermented as an alcohol beverage, or cooked to produce a fine light brown syrup that is commonly used as a sweetener for drinks, cocktails and many other uses. Cutting toddy is a very important traditional activity that is carried out daily and where the coconut toddy is collected twice a day per tree by many young and middle aged men.

53. Decline in households who were engaged in the cutting toddy activity in all regions since 2012, and from 50% to 26.9% of overall households.

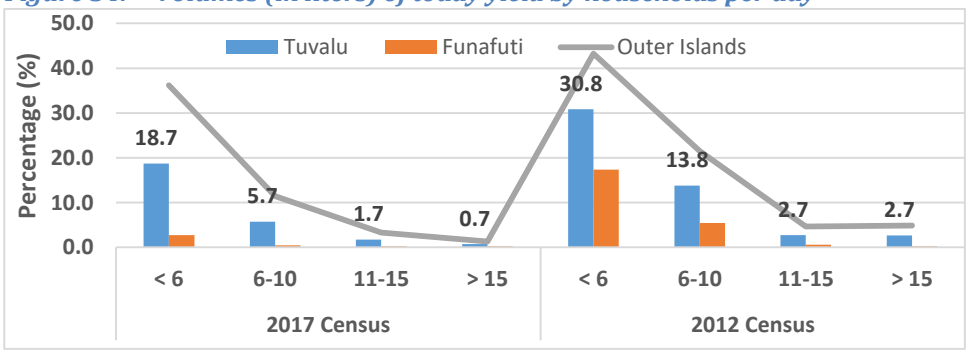
54. Only 3.7% households in Funafuti responded as still participate in this activity. And despite 52.3% (406) households in outer islands that cut toddy may look incomparably exceeded to those of Funafuti, it is still a decline from 74.3% (681) households noticed during the 2012 census.

55. Majority of the toddy yields by toddy cutter is less than 6L daily

Table 37: Volumes (in liters) of toddy yield by households per day

Region	2017 Census					2012 Census				
	< 6	6-10	11-15	> 15	Total	< 6	6-10	11-15	> 15	Total
Total	**304**	**93**	**28**	**12**	**437**	**543**	**243**	**48**	**47**	**881**
Funafuti	23	4	2	2	31	147	46	5	2	200
Outer Islands	281	89	26	10	406	396	197	43	45	681
	Proportion of total households (%)									
Tuvalu	**18.7**	**5.7**	**1.7**	**0.7**	**26.9**	**30.8**	**13.8**	**2.7**	**2.7**	**50.0**
Funafuti	2.7	0.5	0.2	0.2	3.7	17.4	5.4	0.6	0.2	23.7
Outer Islands	36.2	11.5	3.3	1.3	52.3	43.2	21.5	4.7	4.9	74.3

Figure 34: Volumes (in liters) of toddy yield by households per day



Livestock and pets

The pigs, chicken and ducks are only 3 types of livestock in Tuvalu. Practically chicken and ducks normally farmed in a free range system. The pigs however use to be farmed in pens. This section provide analysis on numbers of livestock and pets raised and ways of managing them that were captured from the census.

56. Pigs is the main livestock raised nationally with 76.4% households owning them. And for outer islands, the chicken followed by the pigs are the most common type of livestock being raised by 88.2% and 75.8% households respectively.

57. Higher number of households is noted of raising chickens and ducks at the outer islands when compared to Funafuti. The census revealed people the preference of farming pigs than other livestock in Funafuti.

58. Provided that about half of the families in Funafuti are not Funafuti natives, they have inadequate land to accommodate the need for free range farming system. And hence it is more reasonable to raise pigs in Funafuti, not the chickens and ducks.

Table 38: Households that raised the livestock and pets

Region	2017 Census					2012 Census				
	Pigs	Chickens	Ducks	Dogs	Cats	Pigs	Chickens	Ducks	Dogs	Cats
Total	**1,242**	**682**	**150**	**294**	**540**	**1,425**	**944**	**268**	**550**	**713**
Funafuti	557	93	10	210	224	603	133	29	297	325
Outer Islands	685	589	140	84	316	822	811	239	253	388
	Proportion (%)									
Tuvalu	**76.4**	**41.9**	**9.2**	**18.1**	**33.2**	**80.9**	**53.6**	**15.2**	**31.2**	**40.5**
Funafuti	65.6	11.0	1.2	24.7	26.4	71.4	15.7	3.4	35.1	38.5
Outer Islands	88.2	75.8	18.0	10.8	40.7	89.7	88.5	26.1	27.6	42.4

59. Similar compositions is observed in the two censuses. Chicken is the most populated species and is accounted for 53% (15,443) followed by the pigs with 37.4% (10,894) of the livestock and pets population.

Table 39: Population of livestock and pets

Region	2017 Census						2012 Census					
	Pigs	Chickens	Ducks	Dogs	Cats	Total	Pigs	Chickens	Ducks	Dogs	Cats	Total
Tuvalu	**10,894**	**15,443**	**1,209**	**391**	**1,206**	**29,143**	**11,021**	**19,209**	**3,254**	**761**	**1,534**	**35,779**
Funafuti	3,772	1,735	56	289	444	6,296	3,937	2,830	1,661	444	661	9,533
Outer Islands	7,122	13,708	1,153	102	762	22,847	7,084	16,379	1,593	317	873	26,246
	Proportions by total livestock & pets (%)											
Tuvalu	37.4	53.0	4.1	1.3	4.1	100	30.8	53.7	9.1	2.1	4.3	100
Funafuti	59.9	27.6	0.9	4.6	7.1	100	41.3	29.7	17.4	4.7	6.9	100
Outer Islands	31.2	60.0	5.0	0.4	3.3	100	27.0	62.4	6.1	1.2	3.3	100

60. Number of animals owned is larger for households in the outer islands compared to Funafuti. And as similar to earlier discussions, the chickens and pigs are the most numerous species possessed in the outer islands at about 18 chickens and 9 pigs per household. Pigs are the most common animal possessed for Funafuti with each household owning about 5 pigs averagely.

Table 40: Average number of livestock and pets per households by region

Region	2017 Census					2012 Census				
	Pigs	Chickens	Ducks	Dogs	Cats	Pigs	Chickens	Ducks	Dogs	Cats
Tuvalu	**6.7**	**9.5**	**0.7**	**0.2**	**0.7**	**6.3**	**10.9**	**1.8**	**0.4**	**0.9**
Funafuti	4.4	2.0	0.1	0.3	0.5	4.7	3.3	2.0	0.5	0.8
Outer Islands	9.2	17.6	1.5	0.1	1.0	7.7	17.9	1.7	0.3	1.0

61. Majority of pig pens were modernized using more durable materials such as cement, timber, fencing wire and iron roofing. An increase from 43.4% to 50.4% households having their pig pens modernized is observed during the 5 years intercensal period.

62. And totaled to 103 households do not have housing for their pigs.

63. Chickens do not have housing for most of them where most of households that raised ducks have created housing for them.

Table 41: Livestock housing type among households owning livestock by region and type of animal

Region	2017 Census			2012 Census		
	Pigs	Chickens	Ducks	Pigs	Chickens	Ducks
Modern	819	136	75	765	136	68
Local	218	49	18	164	69	31
Both	102	31	14	387	111	30
No housing	103	466	43	109	628	139
Total	**1,242**	**682**	**150**	**1,425**	**944**	**268**
	Proportions by type of housing (%)					
Modern	65.9	19.9	50.0	53.7	14.4	25.4
Local	17.6	7.2	12.0	11.5	7.3	11.6
Both	8.2	4.5	9.3	27.2	11.8	11.2
No housing	8.3	68.3	28.7	7.6	66.5	51.9
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
	Proportion of total households (%)					
Modern	50.4	8.4	4.6	43.4	7.7	3.9
Local	13.4	3.0	1.1	9.3	3.9	1.8
Both	6.3	1.9	0.9	22.0	6.3	1.7
No housing	6.3	28.7	2.6	6.2	35.7	7.9
Total	**76.4**	**41.9**	**9.2**	**80.9**	**53.6**	**15.2**

Handicraft

The Tuvalu census had a special section to obtain information about households participation towards the handicraft made and production. The questions were set up so that a household could share the types of handicraft that they may produce.

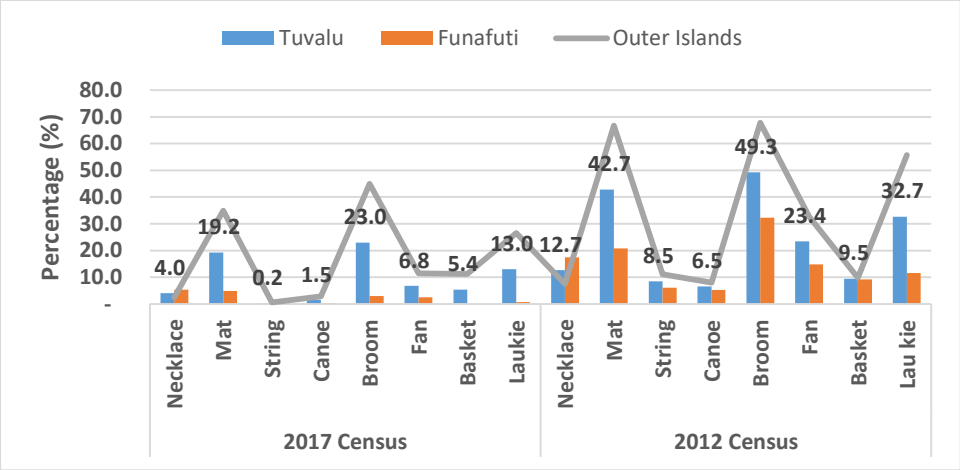
64. And like the 2012 analysis, the most common handicrafts produced by households were the brooms, mats, laukie and fans. All of these handicrafts were to produce mainly at the outer islands with very few households in Funafuti noticed being part of handicraft activities.

65. A massive decline in proportions of households participating in handicraft activities during 2017 when compared to 2012. It could be an indication of people in these days are getting reluctant in continuing to practice the subsistence activities.

Table 42: Households producing handicrafts within a year prior to census

Region	Necklace	Mat	String	Canoe	Broom	Fan	Basket	Laukie	Other
	2017 Census								
Total	**65**	**312**	**4**	**25**	**374**	**110**	**87**	**212**	**47**
Funafuti	46	41	-	3	25	21	-	6	23
Outer Islands	19	271	4	22	349	89	87	206	24
	2012 Census								
Total	**206**	**695**	**138**	**106**	**801**	**380**	**154**	**531**	**209**
Funafuti	148	177	52	44	274	126	78	98	117
Outer Islands	58	518	86	62	527	254	76	433	92

Figure 35: Proportions of households producing handicrafts within a year prior to census



FERTILITY

The demographic measures that define population change are fertility, mortality, and migration. Tuvalu has traditionally been a fairly closed population, that is, having little international migration (either in or out), so most growth has been due to natural increase.

Fertility is usually measured by the number of children a female has ever born. A second method, called the own children estimate, is also applied in this chapter.

Age at First Birth

66. Similar to the Singulate Age at Marriage discussed in the marital status section, the average age at first birth can be determined by tabulating numbers of childless females in each age group. So, for example, in Table 43, 438 of the 454 females aged 15 to 19 years (96%) had never given birth. The last column gives the percentage of each age group that was still childless. The average age at first birth was 24.8 years. Note that this age is slightly younger than the average age at first marriage, indicating some females were having births before marriage.

Table 43: Average Age at First Birth, Tuvalu: 2017

Age	Females	Childless	Parent childless
15-19	454	438	96.5
20-24	458	302	65.9
25-29	421	131	31.1
30-34	362	74	20.4
35-39	280	47	16.8
40-44	212	38	17.9
45-49	227	32	14.1
	Average Age:		**24.8**

Source: 2017 Tuvalu Census

Children Ever Born and Surviving

The census usually asks for date of birth, sex, and vital status of the last child in order to assess recent age-specific and total fertility rates.

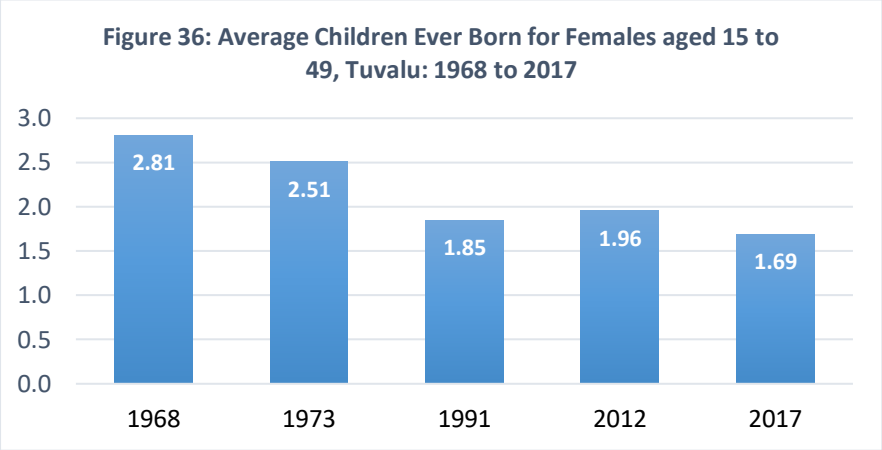
67. Table 44 and Figure 36 show the average number of children ever born per woman by age from the 1968 census through the 2017 census. The number of children to women aged 15 to 49 years has decreased over time, from 2.8 in 1968 to just 1.7 in 2017.

68. For women at the end of childbearing age, 45 to 49 years, the total children ever born decreased from an average of 5.9 children to 3.6 during the almost half-century between the first and last census in the series.

Table 44: Children Ever Born by Age of Mother, Tuvalu: 1968 to 2017

Age	**1968**	**1973**	**1991**	**2012**	**2017**
Total	2.81	2.51	1.85	1.96	1.69
15 – 19	0.07	0.04	0.08	0.03	0.04
20 – 24	0.83	0.70	0.64	0.66	0.48
25 – 29	2.27	1.82	1.45	1.77	1.43
30 – 34	3.62	2.87	1.95	2.66	2.43
35 – 39	5.11	4.15	2.69	3.55	2.96
40 – 44	5.66	5.43	3.41	3.79	3.42
45 – 49	5.90	6.09	3.56	3.65	3.63

Source: Tuvalu Censuses



69. The numbers of children ever born and surviving are analyzed for 2017 by island. In a few islands, women aged 45 to 49 years recorded having more than seven children. In fact, Nukufetau females in 1968 had an average completed family of almost eight children. Even in 2012, Nanumea females had an average of more than five children. None of the islands had families this large in 2017 – the highest was Nukufetau at 4.6 children.

Table 45: Children Ever Born to Females 45 to 49 by Island, Tuvalu: 1968 to 2017

Island	1968	1973	1991	2012	2017
Total	5.90	6.09	3.56	3.65	3.63
Nanumea	5.07	6.86	4.62	5.24	3.80
Nanumanga	6.40	5.41	4.11	3.62	4.44
Niutao	6.40	7.33	3.21	3.10	3.92
Nui	6.17	6.94	4.28	4.27	4.00
Vaitupu	5.82	5.15	3.29	3.20	3.15
Nukufetau	7.87	6.79	2.60	4.30	4.64
Funafuti	5.06	5.19	3.60	3.55	3.47
Nukulaelae	4.22	4.14	2.08	3.14	4.38
Niulakita	NA	5.00	NA	5.00	NA

Source; Tuvalu censuses

70. As health conditions have improved, and Tuvaluans have more access to health care in the hospital and clinics, the percentage of children surviving has increased. In 2017, at least 95% of all babies born to women in the different age groups survived to the census, including every baby born to females aged 15 to 19.

71. The percentages of children surviving increased over time, as would be expected with more prenatal care and better general facilities. In 1968 and 1973, many babies were born at home, often on the Outer Islands. Only about 4 in every 5 babies born to females 15 to 49 at that time had survived until the census date. The percentage surviving increased to 93% in 1991, and then to 95% in 2012 and 98% in 2017.

Table 46: Percentage Surviving of Children Ever Born by Age of Mother, Tuvalu: 1968 to 2017

Age	1968	1973	1991	2012	2017
Total	80.9	82.1	93.0	95.1	97.6
15 – 19	90.9	84.6	95.7	92.3	100.0
20 – 24	89.0	90.1	95.6	96.9	98.2
25 – 29	88.6	89.6	94.9	97.0	98.7
30 – 34	86.0	87.4	94.9	95.6	98.4
35 – 39	81.4	83.5	91.4	95.0	97.8
40 – 44	80.0	77.7	92.8	95.4	95.5
45 – 49	71.9	77.4	90.7	92.8	97.2

Source: Tuvalu Censuses

Table 47: Percentage Children Surviving to Females 45 to 49 by Island, Tuvalu: 1968 to 2017

Island	1968	1973	1991	2012	2017
Total	71.9	77.4	90.7	92.8	97.2
Nanumea	71.1	81.8	85.6	89.9	97.4
Nanumanga	60.2	79.8	89.7	89.4	95
Niutao	65	84.4	95.1	85.5	98
Nui	85.1	52.5	90.9	89.4	92.5
Vaitupu	70.3	76.7	95.7	94.8	100
Nukufetau	82.2	74.7	80.8	88.4	98
Funafuti	78	83.7	93.5	94.3	97.2
Nukulaelae	76.3	86.2	80	100	97.1
Niulakita	NA	60	NA	100	NA

Source: Tuvalu censuses

Age Specific Fertility Rates from Last Births

The 2017 Tuvalu census had a series of questions on births in the three years before the census. The information collected on births in the last three years is problematic and this may be due to both enumerator misunderstanding and respondent error.

A decision was made not to use the information from the births in the last three years, and a different procedure was used to compare the information on births in the year before the census with children ever born. Since persons 0 years old in census- that is, they had not reached their first birthday- are reported in the household listings, these babies were used as a substitute for births in the last year.

The number of 0 year olds (223) does not include those babies that were born in the year before the census but who subsequently died, and nor does it include babies who were born in Tuvalu but who then moved with their parents to another country. This figure however is very close to what was expected, based on vital registrations. These babies were then matched to the age of the mother in the same household, to give estimated births by age of mother.

Table 48 shows application of the Trussell P/F Ratio (Parity/Fertility) to the births in the last year by age of females. The method compares the children ever born with those born in the last year and gives estimates of the relationship between the two sets of numbers. In this case, the age-specific and total fertility rates were increased for the period one year before the census.

Table 48: Trussell P/F Ratio Technique, Tuvalu: 2017

Age	Reported ASFR f(i)	Average CEB P(i)	Cumulative fertility Phi(i)	F(i)	P/F ratio
15-19	0.043	0.04	0.215	0.091	0.436
20-24	0.134	0.48	0.885	0.597	0.804
25-29	0.147	1.43	1.617	1.309	1.089
30-34	0.155	2.43	2.392	2.114	1.147
35-39	0.079	2.96	2.788	2.653	1.116
40-44	0.025	3.42	2.911	2.854	1.200
45-49	0.011	3.63	2.968	2.954	1.229
TFR	**2.97**	. . .	. . .	. . .	. . .

Source: 2017 Tuvalu Census

Note: Age Specific Rates based on 0-year-olds in the house -- see text

Note: ASFR - Age Specific Fertility Rate; CEB = Children ever born

72. Table 49 and Figure 37 show adjusted age-specific fertility rates using the P/F Ratio to adjust the results of children born in the year before census for 2017. The adjusted figures are higher than the enumerated figures because of the relationship between the children ever born and children born in the year before the census.

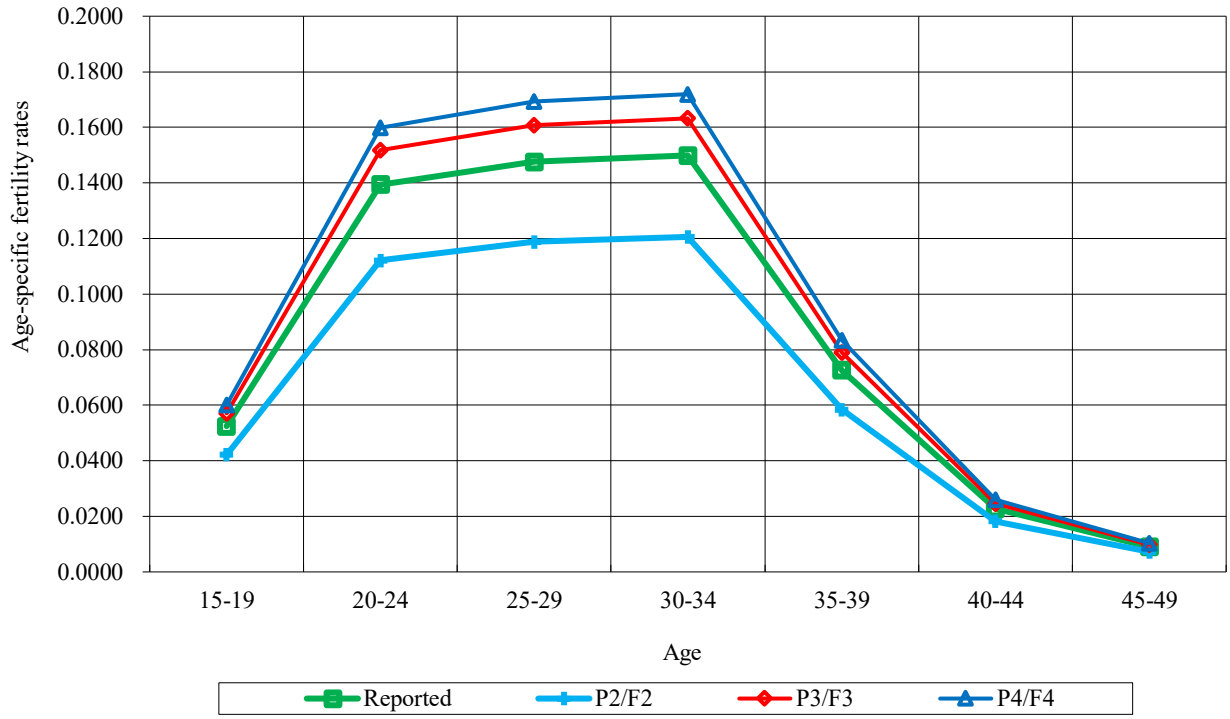
Table 49: Adjusted ASFRs using Trussel P/F Ratio Technique, Tuvalu: 2017

		Adjusted ASFR's			
		P2/F2	P3/F3	P4/F4	Avg(P3/F3,P4/F4)
Age	ASFR	0.804	1.089	1.147	1.118
15-19	0.0524	0.0421	0.0570	0.0601	**0.0585**
20-24	0.1394	0.1121	0.1518	0.1599	**0.1559**
25-29	0.1476	0.1187	0.1607	0.1693	**0.1650**
30-34	0.1499	0.1206	0.1632	0.1719	**0.1676**
35-39	0.0726	0.0584	0.0790	0.0833	**0.0812**
40-44	0.0227	0.0182	0.0247	0.0260	**0.0254**
45-49	0.0090	0.0073	0.0098	0.0103	**0.0101**
TFR	**2.97**	2.4	3.2	3.4	**3.3**

Source: 2017 Tuvalu Census

Note: Pattern corrected for one-half year between birth and reporting.

Figure 37: Adjusted ASFRs by P/F Ratio: Tuvalu, 2017

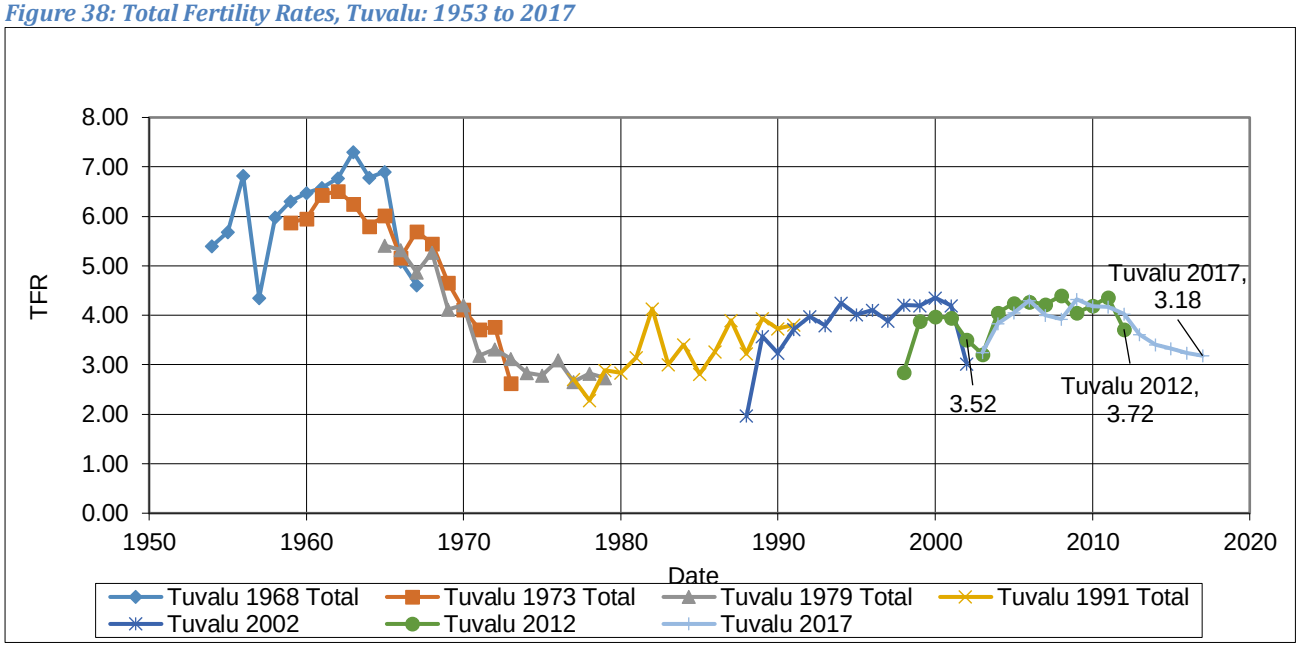


73. The P/F Ratio provides a measure of how well the children ever born and the children born in the year before the census match up. In the 2017 census, the match was good for females 25 years and older but was somewhat low for those 15 to 24. However, as shown below in the section on vital status, a better P/F Ratio is obtained when registered births are used as the proxy for births by age.

OWN CHILDREN

74. Figure 38 shows the own children derived TFR (Total Fertility Rate) results from the 1968 census through the 2017 census. As can be seen, the 2017 results fit well with the 2012 census, and mostly with the 2002 results as well

Figure 38: Total Fertility Rates, Tuvalu: 1953 to 2017



Comparisons with Vital Records

The Office registering births and deaths provided anonymized listing of all births between 2012 and 2017. The births for 2017 were summed by age of mother.

Table 50: Adjusted Age-Specific and Total Fertility Rates using Birth Records, Tuvalu: 2017

		Adjusted ASFR's			
		P2/F2	P3/F3	P4/F4	Avg(P3/F3,P4/F4)
Age	ASFR	1.031	1.130	1.191	1.160
15-19	0.029	0.030	0.033	0.034	0.034
20-24	0.141	0.145	0.159	0.167	0.163
25-29	0.166	0.171	0.188	0.198	0.193
30-34	0.136	0.140	0.154	0.162	0.158
35-39	0.086	0.088	0.097	0.102	0.099
40-44	0.019	0.020	0.022	0.023	0.022
45-49	0.000	0.000	0.000	0.000	0.000
TFR	**2.9**	**3.0**	**3.3**	**3.4**	**3.3**

Sources: 2017 Tuvalu Census and Tuvalu Vital Records

75. As Table 50 shows, the adjusted TFRs are very close to those obtained in the census using births in the three years before the census. **The unadjusted TFR was 2.9 and the adjusted was 3.3.**

76. We can also look at changes in age-specific and total fertility rates based on annual birth registrations from 2012 to 2017. As the table shows, the age-specific and total fertility rates decreased marginally during the period.

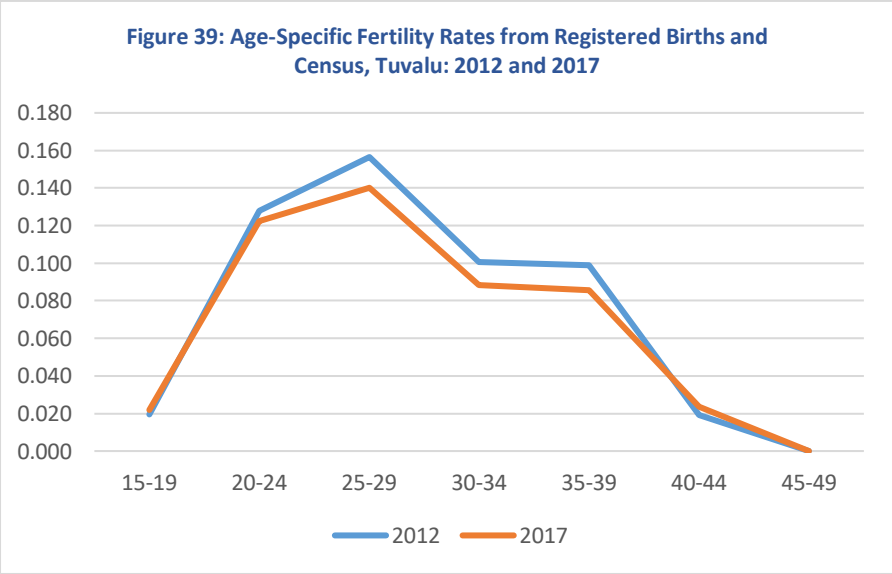
Table 51: Interpolated Age Specific Birth Rates from Births and Census, Tuvalu: 2012 to 2017

Age	2012	2013	2014	2015	2016	2017
15-19	0.020	0.020	0.020	0.021	0.021	0.022
20-24	0.128	0.127	0.126	0.125	0.124	0.122
25-29	0.156	0.153	0.150	0.148	0.146	0.140
30-34	0.101	0.098	0.096	0.094	0.093	0.088
35-39	0.099	0.096	0.094	0.092	0.091	0.086
40-44	0.019	0.020	0.020	0.021	0.021	0.024
45-49	0.000	0.000	0.000	0.000	0.000	0.000
TFR	**2.6**	**2.6**	**2.5**	**2.5**	**2.5**	**2.4**

Source: 2017 Tuvalu Census and Birth Records

77. The 2017 rate obtained from the births matched to the population is somewhat lower than that obtained in the census, but not all births could be included because the mother's age was missing in the birth records in some cases.

78. Figure 39 shows the distribution of age-specific fertility rates from 2012 and 2017. The two trend lines are very similar, as would be expected since the numbers of births has changed little over time and the population has been stable. Females 20 to 39 had slightly lower age specific rates in 2017 than in 2012.



Children's Record

79. The 2017 Tuvalu census recorded 731 children aged under five years (between 0 and 4 years). Of those, 653 (89%) were in the house at the time of the census. Another 69 were living either elsewhere in Tuvalu or outside Tuvalu. Only nine children were reported as deceased (these records are included to assist in understanding under-five mortality).

Table 52: Situation of Children under five years old by Sex and Age, Tuvalu: 2017

Situation of child	Total	Less than 1 year	1 year olds	2 year olds	3 or 4 year olds
Total	731	126	165	203	237
Living in this house	653	113	139	179	222
Living elsewhere in or outside Tuvalu	69	8	24	23	14
Deceased	9	5	2	1	1
Males	383	65	91	105	122
Living in this house	342	55	78	94	115
Living elsewhere in or outside Tuvalu	38	8	12	11	7
Deceased	3	2	1	0	0
Females	348	61	74	98	115
Living in this house	311	58	61	85	107
Living elsewhere in or outside Tuvalu	31	0	12	12	7
Deceased	6	3	1	1	1

Source: 2017 Tuvalu Census

Birth registration and certification

80. Table 53 shows children by age and sex, whether their births were registered, and whether they had a birth certificate. Of the 731 children aged under five, 606 (83%) were known to have been registered by the householder responding in the census. However, 62 births were not registered (8%) and for another 63 children it was not known whether they were registered or not. Females were more likely to be registered than males (85% compared to 81%).

Table 53: Age and Sex by Birth Registration and Certificate, Tuvalu: 2017

		Child's birth registered			Child's birth certificate		
Age and Sex	Total	Registered	Not registered	Don't know	Total	Birth certificate	No certificate
Total	731	606	62	63	731	522	209
Less than 1	126	102	19	5	126	83	43
1	165	131	14	20	165	112	53
2	203	173	13	17	203	147	56
3 or 4	237	200	16	21	237	180	57
Males	383	311	42	30	383	262	121
Less than 1	65	53	10	2	65	40	25
1	91	72	10	9	91	60	31
2	105	87	10	8	105	78	27
3 or 4	122	99	12	11	122	84	38
Females	348	295	20	33	348	260	88
Less than 1	61	49	9	3	61	43	18
1	74	59	4	11	74	52	22
2	98	86	3	9	98	69	29
3 or 4	115	101	4	10	115	96	19

Source: 2017 Tuvalu Census

81. Of the 731 children reported on the children's records, 522 had a birth certificate (71%). The rate for males was 68% (about 2 in 3) and for females was 75% (3 in 4). There was little variation by the age of the child.

Conclusions. In 1968, the average female 15 to 49 had 2.8 children, and those 45 to 49 had 5.9. This has decreased, so that in 2017, the average for all females in the reproductive years 15 to 49 was 1.7 while the average completed family size for women 45 to 49 was 3.6 children. The percentage of children surviving to females 45 to 49 was only 72% in 1968, but that increased to 97% in 2017. Almost all babies born to females in Tuvalu now survive to adulthood.

The total fertility rate – the average number of children a woman will have during her reproductive years- was 3.0 in 2017. The census showed a peak fertility in the 30 to 34 year age group. However, based on the vital statistics, the age specific rates peaked at 25 to 29 years, as is more usual. It is not clear why the discrepancy occurred.

Births reported in the vital records provided a TFR or 3.3. Fertility remains above replacement, so without migration, the population would increase.

MORTALITY

In the 2017 census, questions on deaths in the last three years were asked to respondents in each household.

The numbers of children ever born and surviving for 2017 provide one measure of mortality based on model life tables (note that these data cannot be applied for the individual islands since the numbers are too small). A second measure comes from deaths in the last year, although the numbers of deaths are very small. Reported deaths in vital statistics may also be used, but again these are likely to be very small. For populations as small as Tuvalu, obtaining accurate life tables can be difficult.

82. Table 54 shows deaths by age and sex obtained in the death records from the census. The census reported a total of 216 deaths, 117 males (54%) and 99 females. Only six deaths were reported for children less than one year old. Tuvalu had very few deaths to people under 40, reflecting a relatively healthy environment, and deaths occurred with increasing age, as would be expected.

Table 54: Death in Last 3 Years and Age-Specific Death Rates, Tuvalu: 2017

	Deaths			Census Population			Age Specific Death Rate		
Age	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total	216	117	99	10,645	5,486	5,159	6.76	7.11	6.40
Less than 1	6	3	3	233	128	105	8.58	7.81	9.52
1-4	1	0	1	927	497	430	0.36	0.00	0.78
5-9	1	0	1	1,205	628	577	0.28	0.00	0.58
10-14	1	1	0	1,012	541	471	0.33	0.62	0.00
15-19	1	1	0	953	497	456	0.35	0.67	0.00
20-24	2	2	0	940	482	458	0.71	1.38	0.00
25-29	7	5	2	923	502	421	2.53	3.32	1.58
30-34	3	3	0	769	407	362	1.30	2.46	0.00
35-39	2	0	2	579	299	280	1.15	0.00	2.38
40-44	8	6	2	454	242	212	5.87	8.26	3.14
45-49	12	8	4	478	251	227	8.37	10.62	5.87
50-54	16	10	6	586	314	272	9.10	10.62	7.35
55-59	24	13	11	579	257	322	13.82	16.86	11.39
60-64	17	12	5	421	198	223	13.46	20.20	7.47
65-69	24	13	11	272	117	155	29.41	37.04	23.66
70-74	27	15	12	136	64	72	66.18	78.13	55.56
75+	64	25	39	178	62	116	119.85	134.41	112.07
Median	66.5	62.7	70.6	. . .	. . .	. . .	. . .	. . .	. . .

Source: 2017 Tuvalu Census

Table 55 shows the calendar year reported for deaths in the three years before the reference date. Values for 2014 and 2017 are truncated because of the date of the census, but 2015 and 2016 are for the full calendar year.

83. Also shown are the numbers of these deaths that were registered in the three years before the census. About one-half of the respondents did not know whether the death had been reported. Only 50% reported that the death had been registered, while another 30% were unsure whether the death had been registered or not.

Table 55: Age by Calendar Year of Death and Whether Registered, Tuvalu: 2017

		Calendar Year of Death					Whether Death Was Registered			
Age	Total	2014	2015	2016	2017	Total	Yes	No	NS	NA
Total	216	30	53	63	70	216	109	19	65	23
Less than 1	6	1	1	4	0	6	1	2	3	0
1-4	1	0	0	1	0	1	0	0	0	1
5-9	1	0	0	1	0	1	1	0	0	0
10-14	1	0	0	0	1	1	0	1	0	0
15-19	1	0	0	1	0	1	1	0	0	0
20-24	2	0	1	0	1	2	1	0	0	1
25-29	7	1	2	2	2	7	5	0	2	0
30-34	3	0	2	1	0	3	2	0	0	1
35-39	2	0	1	1	0	2	1	0	1	0
40-44	8	2	2	3	1	8	2	1	1	4
45-49	12	2	2	3	5	12	6	2	3	1
50-54	16	3	2	6	5	16	4	1	7	4
55-59	24	1	6	10	7	24	15	2	4	3
60-64	17	5	4	3	5	17	9	0	7	1
65-69	24	1	7	9	7	24	14	1	6	3
70-74	27	4	8	5	10	27	13	4	8	2
75-79	23	6	3	5	9	23	14	2	7	0
80+	41	4	12	8	17	41	20	3	16	2

Source: 2017 Tuvalu Census

In order to measure maternal mortality, the census asks respondents whether a death was to a female of reproductive age. In those cases where the death was to a female 15 to 54, the enumerator then asked if the female was pregnant, died in childbirth, or died within six weeks (or 42 days) after the birth of the child.

84. As Table 56 shows, only one woman was reported to have definitely died in pregnancy, another in childbirth, and none in the six weeks after the birth. For the other nine deaths to females of reproductive age, the respondents did not know or did not give a response.

Table 56: Maternal Mortality by Age and Reason, Tuvalu: 2017

	Reproductive status at death			
Age	Total	Pregnant	Giving birth	Don't know
Total	**11**	**1**	**1**	**9**
25-29	2	1	1	0
30-34	0	0	0	0
35-39	2	0	0	2
40-44	2	0	0	2
45-49	4	0	0	4
50-54	1	0	0	1

Source: 2017 Tuvalu Census

Model Life Table Development

A model life table is synthesized from data collected at one point in time (i.e., at the census), and the mortality rates applied to a hypothetical group, or cohort, of males or females. These tables are constructed using information on both childhood and adult mortality derived separately or together and are the best estimates available of the general level of mortality in Tuvalu for the three period before the 2017 census.

Model life tables were obtained in two ways: (1) using the relationship of children ever born and surviving to obtain estimates of mortality that can be modeled to a Coale-Demeny table, and (2) reported deaths in the three years before the census and the estimated population during that period.

85. The following life table was created by using females, children ever born, and children surviving, a sex ratio at birth of 1.08, and the Coale-Demeny West Model (Table 57). Life expectancy at birth in 2017 was 70.0 based on these inputs, for both sexes combined

Table 57: Life Table based on Children Ever Born and Surviving, Tuvalu: 2017

Age	m(x,n)	q(x,n)	l(x,n)	L(x,n)	d(x,n)	s(x,n)	T(x.n)	E(x,n)
0	0.02635	0.02575	100,000	97,724	2,575	0.9727	7,000,000	**70.0**
1	0.00115	0.00459	97,425	388,616	447	0.9955	6,902,276	70.8
5	0.00056	0.00277	96,978	484,169	269	0.9976	6,513,661	67.2
10	0.00046	0.00232	96,710	483,009	224	0.9968	6,029,492	62.3
15	0.00088	0.00441	96,485	481,450	425	0.9946	5,546,483	57.5
20	0.00123	0.00613	96,060	478,866	589	0.9938	5,065,033	52.7
25	0.00122	0.00610	95,471	475,912	582	0.9936	4,586,167	48.0
30	0.00138	0.00687	94,889	472,864	652	0.9922	4,110,255	43.3
35	0.00180	0.00896	94,237	469,189	844	0.9890	3,637,390	38.6
40	0.00273	0.01355	93,392	464,035	1,265	0.9824	3,168,201	33.9
45	0.00455	0.02251	92,127	455,869	2,073	0.9709	2,704,166	29.4
50	0.00750	0.03685	90,054	442,621	3,319	0.9521	2,248,297	25.0
55	0.01254	0.06092	86,735	421,413	5,284	0.9229	1,805,676	20.8
60	0.02009	0.09592	81,452	388,939	7,813	0.8794	1,384,262	17.0
65	0.03231	0.15006	73,639	342,030	11,050	0.8125	995,323	13.5
70	0.05237	0.23252	62,588	277,891	14,553	0.7146	653,293	10.4
75	0.08465	0.34993	48,035	198,578	16,809	0.5795	375,402	7.8
80	0.13785	0.50799	31,226	115,069	15,863	0.4147	176,824	5.7
85	0.21962	0.68215	15,363	47,719	10,480	0.2564	61,755	4.0

Source: Tuvalu 2017 Census Fertility and New Own Children Package

The following life table was obtained by using the deaths in the three years before the census by age and the age structure of the population at the time of the census. Since the population had changed little since 2012, the actual 2017 population was used as the denominator (Table 58). However, since the deaths were over a three-year period, the population was multiplied by three for each period of exposure, so that the person years lived would be in general agreement with the possible exposure to death.

Table 58: Smoothed Abridged Life Table Based on Deaths and Population, Tuvalu: 2017

							Both sexes			
Age	**N**	**nMx**	**nax**	**nqx**	**lx**	**ndx**	**nLx**	**5Px**	**Tx**	**ex**
0	1	0.0086	0.07	0.0085	100,000	852	99,206	0.99	7,100,827	**71.01**
1	4	0.0004	1.83	0.0014	99,148	142	396,285	1.00	7,001,622	70.62
5	5	0.0003	2.50	0.0014	99,006	137	494,688	1.00	6,605,337	66.72
10	5	0.0003	2.50	0.0016	98,869	163	493,939	1.00	6,110,649	61.81
15	5	0.0004	2.50	0.0022	98,706	214	492,996	1.00	5,616,710	56.90
20	5	0.0009	2.50	0.0043	98,492	421	491,407	0.99	5,123,714	52.02
25	5	0.0013	2.50	0.0066	98,071	649	488,730	0.99	4,632,307	47.23
30	5	0.0016	2.50	0.0078	97,421	758	485,212	0.99	4,143,577	42.53
35	5	0.0021	2.50	0.0103	96,664	994	480,832	0.99	3,658,365	37.85
40	5	0.0038	2.50	0.0191	95,669	1,823	473,790	0.97	3,177,533	33.21
45	5	0.0077	2.50	0.0376	93,847	3,528	460,413	0.96	2,703,743	28.81
50	5	0.0102	2.50	0.0497	90,318	4,488	440,373	0.95	2,243,331	24.84
55	5	0.0119	2.50	0.0580	85,831	4,976	416,713	0.93	1,802,958	21.01
60	5	0.0177	2.50	0.0845	80,855	6,835	387,185	0.89	1,386,245	17.14
65	5	0.0298	2.50	0.1385	74,019	10,251	344,470	0.79	999,060	13.50
70	5	0.0662	2.50	0.2839	63,769	18,105	273,581	0.58	654,590	10.27
75	+	0.1199	8.34	1.0000	45,664	45,664	381,009		381,009	8.34

Source: 2017 Tuvalu Census and PAS Life Table from Deaths and Population

nMx = Age-specific central death rate.

nax = Average person-years lived by those who die between ages x and x+n

nqx = Probability of dying between exact ages x and x+n (age-specific mortality rate)

lx = Number of survivors at age x.

ndx = Number of deaths occurring between ages x and x=n.

nLx = Number of person-years lived between ages x and x+n.

5Px = Survival ratio for persons aged x to x+5 surviving 5 years

Tx = Number of person-years lived after age x.

ex = Life expectancy at age x. Separation factors North

As can be seen, the two results were very similar even though they came from different sources. The number of deaths, both to children and adults were so small, that separate life tables by sex were not developed.

86. The crude death rate from the census was 6.76 per 1,000. Male crude death rate was 7.11 and female crude death rate was 6.40. Applying these to the spreadsheet provides a **life expectancy at birth for males of 66.5 and for females of 70.9**. These figures are about two years younger than from the previous two estimates. However, if the average number of deaths adjusted and reported in the vital statistics report is used – 10.2 per 1,000 for males and 9.4 for females – the death rates are necessarily higher making for lower life expectancy at birth – 59.7 for males and 63.7 for females (Tuvalu Vital Statistics, 2017).

Infant and Child mortality

The package QFIVE was used to determine indirect estimates of infant and child mortality. Again, because the numbers are so small, we may expect large sampling errors. The estimates are based on the relationship between children ever born and children surviving.

87. Infant mortality was lowest for females 25 to 29, at about 12 per 1000 (Table 59). The rate was slightly higher for females 20 to 24 and increasing through the ages above 29 until the 40 to 44 group, at 33 per 1000. But the numbers of women and children were very low as these ages. The probability of dying after leaving infancy was very low.

Table 59: Child Mortality, Tuvalu: 2017

Mother's Age	Reference Date	Infant Mortality	Probability of Dying Age 1 to 5	Probability of Dying By Age 5
20-24	2015.7	**0.018**	0.003	**0.022**
25-29	2014.4	0.012	0.002	0.014
30-34	2012.6	0.014	0.002	0.016
35-39	2010.4	0.018	0.003	0.021
40-44	2007.8	0.033	0.008	0.041
45-49	2004.8	0.020	0.004	0.024

Source: Tuvalu 2017 Census and Mortpak QFIVE

88. The under-five mortality has decreased from 28-32 per 1000 in 2012 to 22 in 2017, although these rates are sensitive to the small numbers involved.

Comparison with Vital Records

Table 60 compares deaths by age reported by calendar year in the census with registered deaths recorded in the vital statistics. The census reported many fewer deaths than the deaths registered for each of the years. Sometimes respondents are reluctant to report deaths in the house, which might explain some of the discrepancy. Also, sometimes an elderly person may go back and forth between two houses and neither household reports the death in the census.

Table 60: Age Year of Death in Census and Vital Statistics, Tuvalu: 2014-2016

	Deaths Reported in the Census				Register Deaths			
Age	Total	2014	2015	2016	Total	2014	2015	2016
Total	**146**	30	53	63	**230**	85	64	81
0-4	7	1	1	5	14	3	2	9
5-9	1	0	0	1	0	0	0	0
10-14	0	0	0	0	1	1	0	0
15-19	1	0	0	1	1	0	1	0
20-24	1	0	1	0	3	2	1	0
25-29	5	1	2	2	9	2	3	4
30-34	3	0	2	1	5	2	2	1
35-39	2	0	1	1	1	1	0	0
40-44	7	2	2	3	7	1	2	4
45-49	7	2	2	3	14	7	5	2
50-54	11	3	2	6	23	12	6	5
55-59	17	1	6	10	25	6	7	12
60-64	12	5	4	3	30	13	8	9
65-69	17	1	7	9	17	4	4	9
70-74	17	4	8	5	21	8	5	8
75-79	14	6	3	5	34	9	8	17
80+	24	4	12	8	36	14	12	10

Source: 2017 Tuvalu Census and Vital Statistics Report

Conclusions. Based on reported deaths in the 2017 Census, life expectancy of the sexes combined in Tuvalu was estimated at 70 years, obtained in two different ways – through children ever born and surviving and through deaths in the year before the census and the census population distribution. Through further application of overall crude death rates by sex, the following **life expectancy figures were estimated; 66.5 years for males and 70.9 for females.**

Using vital statistics however, a much lower result is obtained.

Infant and child mortality is low, partly because the majority of the population lives on Funafuti now, and has access to the hospital.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