

Tonga Labor force survey 2018 – Information on sampling design and weighting

Sample design

The 2018 LFS in Tonga aimed to produce indicators at the island group level (Tongatapu urban, Tongatapu rural, Vava'u, Ha'apai, 'Eau and Niuas), in addition to urban/rural and National. This breakdown by island is used as stratification for sampling selection.

Sampling frame and selection process

The 2016 population census was used as sampling frame to randomly select the census blocks (Enumeration Areas – Eas) as Primary sampling unit (probability of selection proportional to size of the block). Within each selected blocks, NSO has randomly 15 households to interview, and in case of non contacted the field team randomly selected 15 households and all household members were interviewed.

Tonga LFS – sampling plan

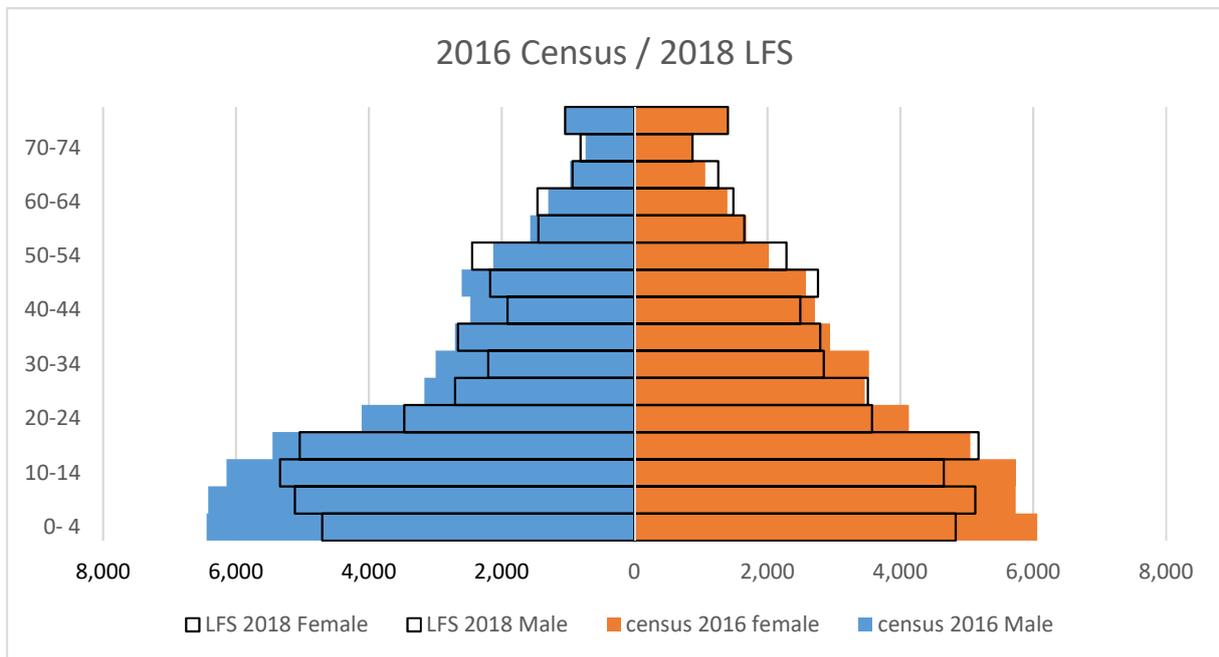
	Strata / Island group	# blocks selected	# hhs/Blocs	Total sample size	Census 2016
1	Tongatapu urban	42	15	630	4,910
2	Tongatapu rural	43	15	645	8,043
3	Vava'u	33	15	495	2,715
4	Ha'apai	32	15	480	1,179
5	Eua	21	15	315	885
6	Niuas	8	15	120	273
	Total	179	15	2,685	18,005

Tonga LFS – response rate

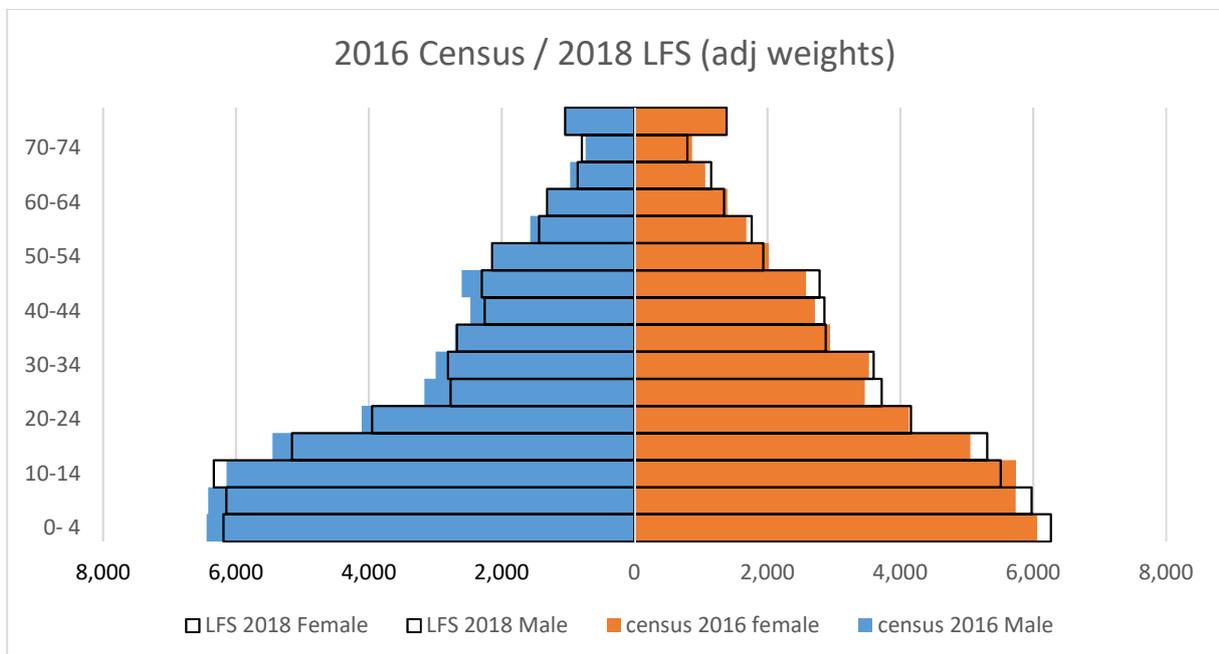
		# households		Response rate
		Selected	Completed	
1	Tongatapu urban	630	613	97.3%
2	Tongatapu rural	645	600	93.0%
3	Vava'u	495	495	100.0%
4	Ha'apai	480	480	100.0%
5	Eua	315	300	95.2%
6	Niuas	120	96	80.0%
		2685	2584	96.2%

Sampling weights

The first set of weights computed directly from the dataset (using the probability of block selection and the probability of households to be selected within the EA) provided the following age structure (compared to the census data):



This first set of weights has been adjusted to match the population age structure (using Stata command `sreweight`). This adjusted set of weights provide the following population age structure.



Final population – LFS

	2018 LFS		2016 households	
	hhs	population	hhs	population
Tongatapu	13,872	78,481	12,953	73750
Vava'u	2,739	12,251	2,715	13632
Ha'apai	1,131	4,022	1,179	6085
'Eua	869	3,519	885	4918
Ongo Niua	328	1,326	273	1215
Total	18,940	99,600	18,005	99,600