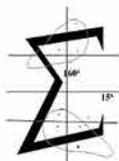




COOK ISLANDS GOVERNMENT



Cook Islands
Statistics Office

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INTERNAL
AFFAIRS

2019 LABOUR
FORCE SURVEY
COOK ISLANDS

COOK ISLANDS LABOUR FORCE SURVEY 2019 REPORT

NOVEMBER, 2020



International
Labour
Organization



Pacific
Community
Communauté
du Pacifique

COOK ISLANDS
LABOUR FORCE SURVEY 2019
REPORT

November, 2020



This Labour Force Survey report provides an analysis of the characteristics of the economic activity and labour force of the Cook Islands, as captured just prior to the outbreak of COVID-19 pandemic. The Labour Force Survey is an essential tool to inform a wide range of national economic and social policies, including the response and recovery during COVID-19 pandemic. The findings from this survey can also inform decision-making, reporting and evaluation of the National Sustainable Development Goals, Millennium Development Goals and Sustainable Development Goals.

The survey offered the innovative opportunity to transit to the Computer Assisted Personal Interview (CAPI) method, thus shortening the interviewing time, facilitating the capturing of data and improving the overall quality of the results.

The implementation of the 2019 Labour Force Survey was a multi-agency national project with close technical assistance provided from regional organisations. The Cook Islands Statistics Office (CISO) worked closely with the Ministry of Internal Affairs (INTAFF) and the Island Governments throughout the duration of this project and would like to acknowledge the successful partnership that was created. Additional value was added at key points of the project by the proactive involvement of the two tripartite social partners:

- the Chamber of Commerce, representing businesses and
- the Cook Islands Workers Association, representing workers.

Furthermore, organisations from around the region played a vital role in providing technical assistance to the project and the CISO would like to thank firstly, the Pacific Community (SPC) through the Statistics for Development Division for aiding the office in the specialised areas of sampling, questionnaire design, data management and data processing. Secondly, the International Labour Organization for providing financial and subject-matter support and training on ILO conventions, classifications and definitions. Lastly, the National Statistics Office of Vanuatu, for seconding their Survey Solutions expert through the South-South exchange programme in order to provide in-country training and support to both CISO and field operations staff.

The final group of people that need to be acknowledged are the field staff for the perseverance in getting high response rates from the households; the CISO and INTAFF office staff for managing and coordinating the project and lastly, the households that participated in the survey and provided valuable information.

Meitaki maata,

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ACRONYMS AND ABBREVIATIONS



EPR	Employment to Population Ratio
CAPI	Computer Assisted Personal Interviewing
CISO	Cook Islands Statistics Office
COVID-19	Coronavirus Disease 2019
DWCP	Decent Work Country Programme
GDP	Gross Domestic Product
HIES	Household Income Expenditure Survey
ICLS	International Conference of Labour Statisticians
ICSE-93	Revision of the International Classification of Status in Employment 1993
ILO	International Labour Organization
ISCED-97	International Standard Classification of Education 1997
ISCO-08	International Standard Classification of Occupations 2008
ISIC	Rev.4 International Standard Industrial Classification of All Economic Activities Revision 4
KILM	Key Indicators of Labour Market
LF	Labour Force
LFS	Labour Force Survey
LFPR	Labour Force Participation Rate
MFEM	Cook Islands Ministry of Finance and Economic Management
MINTAFF	Cook Islands Ministry of Internal Affairs
MoU	Memorandum of Understanding
OSH	Occupational Safety and Health
SDGs	Sustainable Development Goals
SPC	The Pacific Community
UN	United Nations
WAP	Working-age Population



The Labour Force Survey (LFS) 2019 was the Cook Islands' first stand-alone Labour Force Survey. It was conducted by the Cook Islands Statistics Office (CISO) of the Ministry of Finance and Economic Management (MFEM), in partnership with the Labour and Consumer Services of the Ministry of Internal Affairs (INTAFF). The 2019 LFS report analyses information and key characteristics of the country's employment-related statistics, with the aim to picture a comprehensive Cook Islands labour market and socio-economic circumstances. The report also aims to inform policymakers on the interests of the working-age population and human development to achieve the national sustainable development plan and strategy. In light of COVID-19, the 2019 LFS results can serve as important baseline data to inform policy-making in the post-COVID-19 socio-economic recovery and promote productive employment.

POPULATION PROFILE

During the survey period Cook Islands' total estimated population was 15,277 people, of which 7,728 were male and 7,549 were female. The majority (71.1 percent) were living on the largest island of Rarotonga. 72.3 percent (11,040 persons) of the total population were born in the Cook Islands, the remaining 27.7 percent (4,237 persons) were born outside the Cook Islands.

WORKING-AGE POPULATION AND LABOUR FORCE

The working-age population (15 years old and above) was estimated at 11,445 people, corresponding to 74.9 percent of the total population. 73.6 percent were located in Rarotonga, only more than one quarter were located in the Outer Islands (26.4 percent).

8,056 persons were in the labour force, and the labour force participation rate (LFPR) was 70.4 percent, with male LFPR of 77.8 percent and female LFPR of 63.4 percent. The highest labour force participation rates by broad age groups were among workers aged 25-34 (91.0 percent) and lowest in 65+ age group (31.7 percent). The youth (aged 15-24) LFPR was 58.9 percent.

Persons who attained tertiary level of education had the highest labour force participation rate of 80.2 percent. Women are more likely to be outside the labour force. 36.7 percent of female working-age population and 22.2 percent of male working-age population were outside the labour force.

EMPLOYMENT

Among the 8,056 persons in the labour force, 7,954 of them were in employment. Youth comprised 17.0 percent of the employed population. Most economic activities were in Rarotonga, with more than three quarters of the employed located in Rarotonga (77.6 percent). The employment to population ratio was 69.5 percent.

Service sector accounted for the largest share of employment, corresponding to 85.9 percent, followed by industry

sector (11.5 percent), and agriculture sector (2.6 percent). The private sector was the main sector providing almost two-thirds (69.4 percent) of the jobs. The private sector was most dominant in Rarotonga, where it employed 75.2 percent of the employed population. In the Northern Group, public sector employed 81.2 percent of the employed population.

By status in employment, the largest share of the employed population (82.4 percent) worked as employees, followed by own-account workers (7.2 percent), contributing family workers (5.3 percent), and employers (5.1 percent). By occupation, sales workers constituted the largest occupational group (10.9 percent). The most common occupation among women was sales workers (17.9 percent) and among men was protective services workers (6.9 percent).

INFORMAL SECTOR AND INFORMAL EMPLOYMENT

The informal sector accounted for 15.9 percent of total employment. 16.8 percent of men and 14.9 percent of women were employed in the informal sector. Outer Islands had slightly higher share of employment in the informal sector (18.1 percent) than Rarotonga (15.3 percent). Informal employment comprised 24.7 percent of total employment, where 24.1 percent of men and 25.4 percent of women were in informal employment. By age group, 50.2 percent of the older population aged 65+ were engaged in the informal employment, while 32.3 percent of youth and 20.5 percent of adults aged 25-64 were in the informal employment. Informal employment incidence was highest in the agriculture sectors (60.0 percent), compared with industry (29.2 percent) and services (23.0 percent).

UNEMPLOYMENT

The unemployment rate stood at 1.3 percent, and youth unemployment reached 10.2 percent. The Northern Group had the highest unemployment rate of 7.0 percent, compared to Southern Group (1.1 percent) and Rarotonga (0.9 percent).

The main issue of labour underutilization in the Cook Islands was a relatively large number of potential labour force instead of unemployment. About 350 persons experienced labour underutilization. The composite measure of labour underutilization (LU4, 4.2 percent) is more than three times the unemployment rate (LU1, 1.3 percent) for the total working-age population.

YOUTH UNEMPLOYMENT AND YOUTH NOT IN EMPLOYMENT, EDUCATION OR TRAINING (NEET)

Youths were more likely to be unemployed than adults in 2019. The male youth unemployment rate (4.6 percent) was more than twice the rate of female youth (1.6 percent). 12.6 percent of total youth population were not in employment, education or training (NEET). The female youth NEET rate



of 16.9 percent was higher than the male youth NEET rate of 8.6 percent. By region, Youth NEET was much higher in the Outer Islands of 23.6 percent than in Rarotonga of 9.0 percent.

ACTUAL HOURS WORKED PER WEEK AND EXCESSIVE WORK

At the main job, the average actual hours worked per week was 37 hours, where men worked on average 38.1 hours and women 35.7 hours. By location, the average hours actually worked was higher in Rarotonga (38 hours) than in the Outer Islands (33.3 hours). 70.6 percent of the employed population actually worked between 35-48 hours per week. 16.8 percent worked less than 35 hours and 12.6 percent actually worked excessively long hours (more than 48 hours).

The incidence of long hours of work was higher in Rarotonga (14.4 percent) than in the Outer Islands (5.9 percent).

WAGES AND EARNINGS

For the main job of paid employees, the estimated average monthly wage was NZ\$1,531 in 2019. On average, men earned at NZ\$1,565, which was slightly higher than women of NZ\$1,490. The average monthly wage of employees in Rarotonga (NZ\$1,667) was higher than in the Outer Islands (NZ\$1,105). By economic sector, in the main job of employees the average monthly wage was highest in the industry sector (NZ\$1,834), followed by the agriculture sector (NZ\$1,701) and the services sector (NZ\$1,495).

For the main job of the self-employed, the average monthly income (NZ\$1,713) was considerably larger than the employed (NZ\$1,531). On average, self-employed males earned NZ\$1,934, which was 37.1 percent more than what female self-employed earned (NZ\$1,411).

OWN-USE PRODUCTION AND SUBSISTENCE WORK

Among the 11,445 working-age population, about 10,056 persons (87.7 percent) in the Cook Islands reported being engaged in some forms of own-use production work. Among the 10,056 own-use producers, 1,229 persons were classified as subsistence food producers, corresponding to around 10.7 percent of the working-age population. Most of the subsistence food producers were located in the Outer Islands with a subsistence food producer rate of 24.2 percent.

WORKPLACE HEALTH AND SAFETY

An estimated 218 persons aged 15 or above, or 2.7 per 100 employed persons experienced an occupational injury and illness sometime during the last 12 months prior to the survey. The largest proportion of occupational injuries occurred to those who engaged in the services sector (3.0 percent), followed by the industry sector (0.5 percent). There was no occupational injuries or illness in the agriculture sector in the last 12 months.

SOCIAL PROTECTION COVERAGE AND BENEFITS

Of the total population, 23.8 percent are covered by social protection, including 19.8 percent of men and 27.9 percent of women. Cook Islands' total social protection coverage rate was below the world average of 45.2 percent and Asia-Pacific region's average of 38.9 percent. By age group, 95.3 percent of population aged 65 and above were covered by social protection. Age group 0-14 had the lowest coverage rate of 8.6 percent. For the age group 25-64, the social protection coverage rates were relatively low, where only 23.5 percent of females and 12.6 percent of males were receiving benefits.

SUMMARY OF KEY LABOUR MARKET INDICATORS



Key labour market indicators, Cook Islands, 2019

	Male	Female	Total
Working-age population, aged 15+	5,576	5,869	11,445
Labour force	4,338	3,718	8,056
Employment	4,270	3,685	7,954
Labour force participation rate (%)	77.8	63.4	70.4
Unemployment rate (%)	1.6	0.9	1.3
Composite rate of labour underutilization (%)	4.2	4.3	4.2
Youth unemployment rate, aged 15-24 (%)	4.6	1.6	3.4
Informal employment rate (%)	16.8	14.9	15.9
Average monthly wages (in New Zealand dollar), employees	\$ 1,565	\$ 1,490	\$ 1,531

	Rarotonga	Outer Islands
Working-age population, aged 15+	8,423	3,022
Labour force	6,231	1,826
Employment	6,173	1,781
Labour force participation rate (%)	74.0	60.4
Unemployment rate (%)	0.9	2.4
Composite rate of labour underutilization (%)	3.2	7.7
Youth unemployment rate, aged 15-24 (%)	1.9	10.2
Informal employment rate (%)	15.3	18.1
Average monthly wages (in New Zealand dollar), employees	\$ 1,667	\$ 1,105



Selected indicators of the labour force by sex, Cook Islands, 2019

	Male	Female	Total
Population, aged 15+	5,576	5,869	11,445
Labour force	4,338	3,718	8,056
<i>By education (% distribution)</i>			
Less than primary	0	0	0
Completed primary	43.3	35.4	39.7
Completed secondary	38.1	39.1	38.5
Tertiary (first stage or completed)	18.6	25.5	21.8
17.7	4.4	63.4	70.4
Employment	4,270	3,685	7,954
<i>By economic sector (% distribution)</i>			
Agriculture, forestry and fishery	4.6	0.2	2.6
Industry			11.5
Services	77.7	95.5	85.9
<i>By employment status (% distribution)</i>			
Employees	83.9	80.7	82.4
Employers	5.4	4.9	5.1
Own-account workers	6.8	7.6	7.2
Contributing family workers	3.9	6.9	5.3
Share of informal employment (%)	24.1	25.4	24.7
Average monthly wages, employees	\$ 1,565	\$ 1,490	\$ 1531
Labour underutilization			
Time-related underemployment	24	7	31
Unemployment	68	34	102
Potential labour force	94	124	217
Labour underutilization rate (%)			
Time-related underemployment rate (%)	0.6	0.2	0.4
Unemployment rate (%)	1.6	0.9	1.3
Potential labour force rate (%)	7.6	5.8	6.4



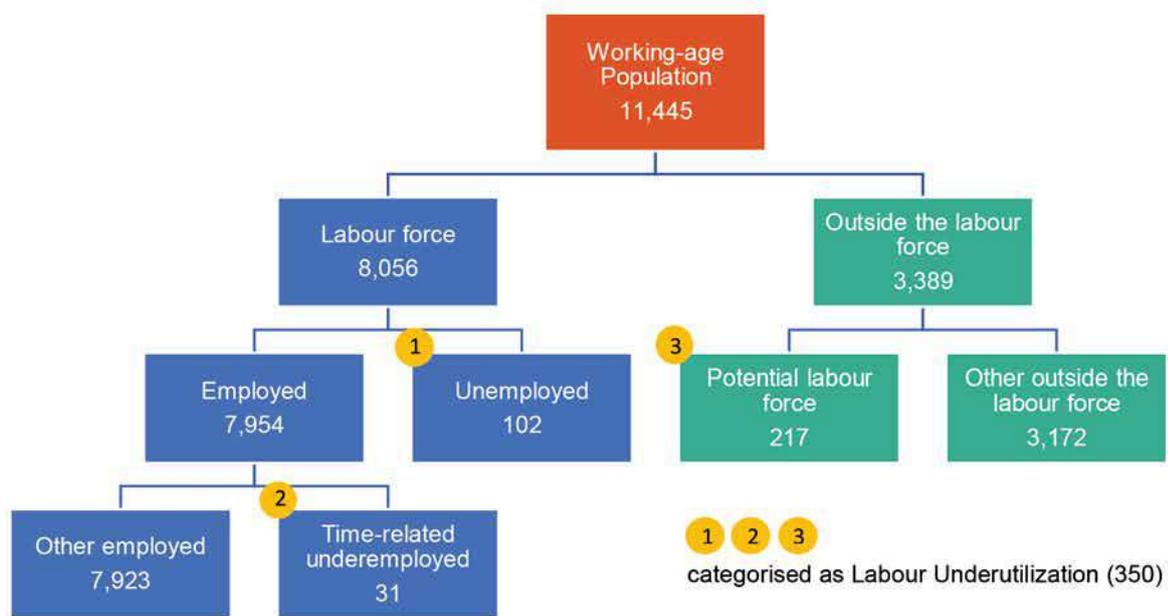
Selected indicators of the labour force by region, Cook Islands, 2019

	Rarotonga	Outer Islands
Population, aged 15+	8,423	3,022
Labour force	6,231	1,826
<i>By education (% distribution)</i>		
Less than primary	0	0
Completed primary	34.3	58.0
Completed secondary	40.0	33.4
Tertiary (first stage or completed)	25.7	8.6
Labour force participation rate (%)	74.0	60.4
Employment	6,173	1,781
<i>By economic sector (% distribution)</i>		
Agriculture, forestry and fishery	2.3	3.7
Industry	12.1	9.4
Services	85.7	86.9
<i>By employment status (% distribution)</i>		
Employees	84.6	75.0
Employers	5.2	5.0
Own-account workers	5.3	13.8
Contributing family workers	5.0	6.3
Share of informal employment (%)	22.2	33.3
Average monthly wages, employees	\$ 1,667	\$ 1,105
Labour underutilization		
Time-related underemployment	31	0
Unemployment	58	44
Potential labour force	113	104
Labour underutilization rate (%)		
Time-related underemployment rate	0.5	0.0
Unemployment rate	0.9	2.4
Potential labour force rate	5.2	8.7

Distribution of working-age population of the Cook Islands by framework



Distribution of working-age population of the Cook Islands by framework



1. BACKGROUND



1.1 INTRODUCTION

The Cook Islands implemented its first stand-alone Labour Force Survey (LFS) in 2019. Previously, the country has produced economic activity and labour force statistics from other sources, including the 2011 population and housing census, the Household Income and Expenditure Survey 2015-2016, and the 2016 population census.

The Cook Islands Labour Force Survey 2019 (LFS 2019) offers a wealth of information on the current employment situation in the Cook Islands. In particular, it provides data on the labour force, employment, unemployment and other components of labour underutilization, including time-related underemployment and potential labour force. The data have been processed in line with the international standards concerning statistics of work, employment and labour underutilization.

The LFS 2019 is complementary to the Population Census and Household Income and Expenditure survey. All three surveys together provide important national data on the Cook Islands' social and economic development. Meanwhile, the country needs evidence to allow both the public and private sectors to advance their policy and decision-making and directing resources to where they are needed most.

1.2 ABOUT THE COOK ISLANDS

The Cook Islands is located between French Polynesia and American Samoa. It is self-governing in free association with New Zealand. Cook Islands people are New Zealand citizens, entitling them to a New Zealand passport and the possibility to move freely to live and work in New Zealand and Australia.



Source: Cook Islands Population Census 2016 Report.



The Cook Islands comprises 15 islands. It has a total land area of 2.2 million square kilometres in the Pacific Ocean.

The islands are geographically divided into the Northern and Southern Group islands, with each group portraying marked differences in terms of their social, cultural, and economic activities. The Northern Group remains relatively isolated from the Southern Group. Rarotonga is in the Southern Group, but as the country's only urban area, statistics for Rarotonga are displayed separately.

Throughout this report, regions are either classified as "Rarotonga and Outer Islands", or "Rarotonga, Southern Group and Northern Group". The Southern Group refers to the outer islands which excludes Rarotonga, as shown in Table 1.1.



Source: Cook Islands Population Census 2016 Report.

Table 1.1. Classification of Regions in the Cook Islands

	Comprise of
1. Rarotonga	-
2. Southern Group*	Aitutaki Mangaia Atiu Mauke Mitiaro
3. Northern Group	Manihiki Pukapuka Penrhyn Rakahanga Nassau Palmerston
Notes: *Exclude Rarotonga.	



ECONOMY

As an upper middle-income country, Cook Islands' annual Gross Domestic Product (GDP)¹ was \$539.7 million in 2019. The services industry contributed the largest share of 78.7 percent to the total GDP². The economy is largely dependent on tourism. The number of tourist arrivals has been taken record since 2001. In 2019, there were around 171,550 visitors who were mainly from New Zealand and Australia.

One of the drivers of economic growth is the development of marine resources and agriculture. The black pearl industry is important for export earnings, representing an economic lifeline for some remote communities in Manihiki (Northern group). Unfortunately, environmental factors, such as cyclones, pearl oyster disease and the mass mortality of shellfish due to hypoxia, have brought about negative impacts and the industry needs revitalising³.

Almost all economic activity is generated on the main island of Rarotonga, such as access to services, shops and flights to Rarotonga, while Aitutaki (Southern Group) is the only Outer Island with a sizeable economy. There was great variation in the sectors of employment among the region. While the public sector employed only 20 percent of all employees in Rarotonga, it was about 46 percent in the Outer Islands. The main islands of the Southern Group (Aitutaki) and Northern Group (Manihiki) display different economic profiles:

- Aitutaki accommodates tourists, hotels and resorts are settling there, and as a touristic destination a lot of people in Aitutaki works for wages in the private sector.
- Manihiki is the island where the black pearls industry is developed (the centre of black pearl production) and generates private sector, infrastructures and air links with Rarotonga⁴.

Besides the economic activities of tourism for Aitutaki and the pearls industry for Manihiki, commercial production in the Outer Islands is focused on agriculture and fishing. Fruit, vegetables and fish are grown or caught for local consumption and, where viable, exported to Rarotonga. Increasing tourism and introducing new crops, such as maire, pineapple and vanilla, are driving the growth of economic production and providing jobs to retain locals on the islands.

The declining population is a critical development challenge for the Cook Islands, affecting all sectors and particularly the Outer Islands. Depopulation, especially the younger generations leaving the Cook Islands, has led to a shortage of skilled workers and increasing reliance on foreign workers. The social and economic development disparities between Rarotonga and the Outer Islands have caused emigration from the Outer Islands to Rarotonga. For the Cook Islands, climate change is another critical issue requiring coordinated policy response from the public sector and civil society to strengthen resilience to climate change, address the mitigation and adaption measures, food security and sea level rise in the longer term.

DECENT WORK COUNTRY PROGRAMME (DWCP)

The Government of the Cook Islands and the International Labour Organization (ILO) signed the Memorandum of Understanding (MoU) in 2019 to collaborate to promote and advance decent work in the Cook Islands. The Decent Work Country Programme for the Cook Islands 2019-2022 is aligned to and will contribute to achieving the National Sustainable Development Plan 2016-2020, the United Nations Pacific Strategy 2018-2022 and the 2030 Global Sustainable Development Goals (SDGs)⁵.

- Priority 1: Advance labour law reform and improve labour administration in line with international labour standards.
- Priority 2: Enhance labour force development and opportunities for inclusive growth and improved employment prospects, with special attention given to youth, women and persons with disabilities.
- Priority 3: Promote social dialogue, tripartism and strong representative employers' and workers' organisations.

1 GDP at 2016 constant prices.

2 Cook Islands National Accounts - December Quarter 2019. <http://www.mfem.gov.ck/statistics/economic-statistics/national-accounts/1046-national-accounts-september-quarter-2030>

3 Cook Islands Population Census 2016 Report.

4 Cook Islands Household Income and Expenditure Survey 2015-2016 Report.

5 ILO Decent Work Country Programme for the Cook Islands 2019-2022.



The Cook Islands Labour Force Survey 2019 provides a complete and accurate picture of the Cook Islands' labour force and employment status, as well as other socio-economic circumstances to support the shaping of policies that affect everyone residing here.

1.3 OBJECTIVES AND CONTENTS OF THE REPORT

The LFS 2019 was conducted by the Cook Islands Statistics Office (CISO) of the Ministry of Finance and Economic Management (MFEM), in partnership with the Labour and Consumer Services of the Ministry of Internal Affairs (INTAFF), with the objective to update information and key characteristics on the country's employment-related statistics and labour force based on the most recent international standards. The 2019 LFS collects, compiles and analyses a comprehensive set of indicators, which will contribute to monitoring and assessing the economic growth and all dimensions of the Cook Islands Decent Work Agenda. To be specific, it provides information on the informal economy, current levels of youth unemployment and persons involved in activities of production for own-use consumption by households. This information can also be used to assess the impact of various policies on social and economic activities of the people, which will be used by policymakers to design relevant policies, to address the labour market issues identified.

PRE-COVID-19 LABOUR FORCE DATA AS A RELIABLE REFERENCE

The COVID-19 pandemic has affected the global economy. For the Cook Islands, a country highly dependent on international tourism, the current lockdowns, social distancing and travel restrictions led to an immediate and sharp decline of 45.5 percent of visitors in March 2020. The dominant services sectors recorded a 11.7 percent drop compared to December 2019. Accommodation and food services, retail trade sectors remain the hardest-hit sectors. Without doubt, COVID-19 pandemic is placing Cook Island's tourism-related jobs in a highly precarious situation. Similarly as elsewhere in the world, workers within the most vulnerable sectors continue to be impacted in form of reduced working hours, reduced wages or job disruption. Workers in the informal employment continue to be the most severely affected due to their lack of income security and exclusion from most social protection measures. Young people are facing multiple shocks, including disruption to education and training, employment and income losses, and greater difficulties in finding a job, which could lead to the emergence of a "lockdown generation"⁶.

With the unfortunate advent of COVID-19, the results of the 2019 LFS now represent important data and snapshot of the Cook Islands' labour market and socio-economic situation in the pre-COVID-19 periods. The capacity of the Cook Islands' labour market to bear the brunt of external and policy shocks depends on the structure of its labour market – where and how people work and the nature of employment relationships. The labour market recovery also depends on the capacity of labour market institutions and the availability of social protection measures to protect enterprises and workers, as well as its capability to buffer the income losses after job displacement. The 2019 LFS data can be used as a reliable reference to evaluate the impact of the COVID-19 pandemic on jobs and the structural change of labour market and serve as a policy tool for the Cook Islands to plan for a better and sustainable tomorrow.

⁶ ILO Monitor: COVID-19 and the world of work.



- Module 10. Job Search and Availability
 - Module 11. Own Use Production of Main Food
 - Module 12. Own Use Production of Other Food, Goods and Services
 - Module 13. Workplace Health and Safety
 - Module 14. Social Protection Coverage, Benefits and Contributions (SP)
- Modules 4-14 (labour force questions) are applicable for age group with age ≥ 13 .

2.3 SAMPLING

- The sample frame used for the selection of Primary Sampling Units (PSUs)⁷ or Enumeration Areas (EAs) and household samples for the Cook Islands Labour Force Survey 2019 was based on 2016 Census of Population and Dwellings. The population and housing census gather detailed information on every person residing in the Cook Islands. It enables data on work and the characteristics of workers to be extracted.

The stratification of the survey is the Rarotonga-urban and the Outer Islands-rural breakdown (2 strata). The frame has 59 PSUs/EAs spread all over the country and covers all socio-economic classes and hence able to get a suitable and representative sample of the population.

To summarize, a sample size of 1,300 adults with a cluster size of 21 adults (aged 15 and above) interviewed per cluster requires the selection of 59 PSUs (EAs) and 531 households (9 households per selected EAs).

- The Cook Islands 2019 Labour Force Survey sampling is based on a two-stage stratified design (two-stage sample selection) i.e. random selection of EAs and random selection of households within each EA:
 - Stage 1: the random selection of EAs using the 2016 Census of Population and Dwellings framework and size of EAs. This selection was completed by using the probability proportional to size approach (the more populated the EA was, the higher the chance of selection was).
 - Stage 2: the random selection of households with equal uniform probability within each selected EAs. Given that the 2016 Census was 3 years outdated, all household listings were updated in all selected EAs. From each selected EA, a fixed number of households (9 sample households) are drawn as clusters with equal probability from each sample Enumeration Area.
 - The labour force participation rate from the 2015/16 Household Income Expenditure Survey (HIES) was picked to be used as the resource variable in the sample size computation process for this Labour Force Survey. Sampling error and design effect derived from the HIES are determining factors to compute an efficient sample size. The standard error of the estimated labour force participation rate was about 2.0 percentage point, equivalent to a margin of error of ± 3.9 percentage point at the 95% confidence level.
 - Computation of the survey parameters:
The survey parameters to be calculated include: the total sample size per stratum, number of EAs to select, number of households to interview in each EA.

The final sample size calculated for Rarotonga were 788 working-age adults and using the household size derived from the census in this stratum, it represents 315 households with a household size of 2.5 adult population. In the Outer Islands rural, the sample size reached 518 working-age adults, representing 216 households with an average household size of 2.4 adult population. The cluster size in all EAs was 9 households per EA. The systematic sampling method was adopted as it enables the distribution of the sample across the cluster evenly and yields good estimates for the population parameters.

- The weighting process started with the computation of the sampling weight at the household level. The household weights were computed using:
 - the inverse of the factor of the probability of selection of the EA, and
 - the probability of selection of the household within the selected EA.

Detailed survey methodology is explained and summarised in Annex A.2.

⁷ Primary sampling unit (PSU) refers to geographical units such as block listings or area segments that are selected in the first (primary) stage of a multi-stage sample ultimately aimed at selecting individual elements.



2.4 FIELD ORGANISATION

The field operations of the labour force survey were launched and completed in January 2020. The field staff was composed of 18 enumerators, 1 supervisor and 1 headquarters staff. There were 10 interviewers for Rarotonga and 8 for the Outer Islands. For the remaining islands, a flight was organised to take 6 CISO staff and high performing field officers to conduct the interviews. The operations may be grouped into two major steps: (a) complete listing of households in 59 sample Enumeration Areas (primary sampling units), and update the household listing for each selected Enumeration Area; and (b) interviewing of 9 selected sample households in each of the sample EAs. All survey teams were closely monitored and supervised by the headquarters in multiple visits in order to facilitate and provide technical assistance if any issue happened during the field data collection.

2.5 DATA PROCESSING, ANALYSING AND REPORT WRITING

Data processing activities for the Cook Islands LFS 2019 involved various stages, including data entry, coding, editing and tabulation of the survey results. Data was controlled using validation build into the CAPI questionnaire with Survey Solutions to check consistency, out of range, errors and others. This enables the interviewer to do the entry from the field at the time of interview and these validation checks alert them if some responses are wrong. Data entry was carried out in parallel with the interviewing of sample households.

Data processing operations were conducted by the Statistics for Development Division of SPC where further editing was undertaken for missing values, consistency checks and some recoding and reshaping of data. Occupation was coded at the 2-digit level using the International Standard Classification of Occupations (ISCO-08). Branch of economic activity was coded at the 2-digit level, based on the International Industrial Classification of All Economic Activities (ISIC Rev.4). The data files were further processed by SDD of SPC, in particular, the sampling weights (“weight”) and the key derived variables: employed (E), unemployed (U), time-related underemployment (TRU), potential labour force (PLF) as well as other derived variables such as informal sector employment and informal employment. A hot-deck technique was used for data editing.

The file was then used to tabulate the initial results using STATA at SDD. The data processing Stata syntaxes for editing, derivation of ILO standard variables and tabulations were shared to ILO for their review. Tabulation was done according to some tabulation plan provided by ILO.

The LFS 2019 report, including analysis, a complete set of figures and final data disaggregation and tabulation using STATA were written and produced by International consultant, Ms Lingling Zhang.

The following rounding rule was adopted for the presentation of the results. Estimates of levels are rounded to the nearest integer. Estimates of percentage rates are rounded to the one decimal place. The sum of individual figures may not always equal to the totals shown in related tables due to independent rounding of estimates. In interpreting the published results, attention should be made to the sampling variation of the estimates.

2.6 MAIN CLASSIFICATIONS USED IN THIS REPORT

International Classification of Status in Employment (ICSE-93)

ICSE-93 is the International Classification of Status in Employment (ICSE) used to classify jobs held by persons at a particular point in time. A job is classified with respect to the type of explicit or implicit contract of employment of the person with other persons or organisations. It has been recently revised by the 20th ILO’s International Conference of Labour Statisticians (ICLS) of October 2018.

International Standard Classification of Occupations 2008 (ISCO-08)

ISCO-08 is the latest International Standard Classification of Occupation (ISCO) released by the ILO.

It organises jobs into a clearly defined set of groups of occupations according to the tasks and duties undertaken in the job. It aims at providing the basis for international reporting and to compare and exchange statistical and administrative data about occupations between countries.

International Standard Industrial Classification (ISIC-Rev.4)

ISIC-Rev.4 is the fourth revision of the International Standard Industrial Classification (ISIC), released by the UN Statistics Division. It is the international reference classification of economic activities arranged so that entities can be



classified according to the activity they carry out.

International Standard Classification of Education (ISCED 2011)

ISCED 2011 is the latest International Standard Classification of Education (ISCED) used by countries to compile and report education statistics for international comparability, released by the UN Educational, Scientific and Cultural Organisation (UNESCO). ISCED 2011 classifies education programmes by their content using two main cross-classification variables: levels of education and fields of education.

Main concepts and statistical definitions are included in the Annex A.1.

3. DEMOGRAPHIC AND SOCIO-ECONOMIC CHARACTERISTICS



Chapter 3 presents demographic and socio-economic characteristics of the Cook Islands population in 2019. It includes information on the number of households by household size, average household size by sex of the head of household and by island division (Table 3.1, Table 3.2). It displays the distribution of the total population by island division, by age and by sex (Table 3.3, Table 3.4). It also presents a general picture of the estimated demographics by immigration status (Table 3.5) and disability status (Table 3.6).

Data on the demographic characteristics of a population can help governments in their decision-making with regard to a wide array of policies, including policies related to pensions, health care or education. Such data also helps governments and social partners to prepare well for issues related to population growth and the demographic structure of the population.

3.1 MAIN CHARACTERISTICS OF HOUSEHOLDS

In the Cook Islands, there were a total of 4,782 households in 2019, with an average household size of 4.4 persons per household. Most of the households had a household size of 1-2 persons (47.2 percent), followed by 3-4 persons (29.5 percent), 5-6 persons (17.6 percent), and 7+ persons (5.6 percent). Male-headed households had a higher average number of persons per household (4.5) than female-headed households (4.2). By island division, the Outer Islands had an average number of 4.5 persons in a household and Rarotonga had 4.3 persons in a household.

Table 3.1. Households’ characteristics by sex of head of household, Cook Islands, 2019

	Male-headed	Female-headed	Total
Average household size	4.5	4.2	4.4
Total number of households by size			
1-2	1,026	1,232	2,258
3-4	849	563	1,413
5-6	555	288	844
7+	180	88	267

Table 3.2. Households’ characteristics by region, Cook Islands, 2019

	Rarotonga	Outer Islands
Average household size	4.3	4.5
Total number of households by size		
1-2	1,684	574
3-4	1,055	357
5-6	543	301
7+	193	74



3.2 DEMOGRAPHIC CHARACTERISTICS OF THE POPULATION

The population constitutes the human capital of the nation and defines its potential labour supply. From an economic point of view, the working population is a factor of production, and its aptitude and skills level contribute to the productivity of the national economy. From a social point of view, different categories of the population form social groups of particular concern, and public institutions and society at large face major challenges meeting their needs.

The Cook Islands has a resident population of 15,277 people in 2019; of them, 7,728 are male and 7,549 are female (Table 3.3). The majority (71.1 percent) are living on the largest island of Rarotonga, the centre for economic activity. 21.4 percent of the population are living in the Southern Group, while only 7.5 percent are living in the Northern Group. The most populous outer islands in the Southern Group are Aitutaki (1,833 residents), Mangaia (469) and Atiu (401). The Northern Group is more isolated and has fewer residents, with Pukapuka being the most populated (481 residents), followed by Manihiki (426) and Penrhyn (234).

Table 3.3. Population by sex, age and education, Cook Islands, 2019

	Male	Female	Total
Total population	7,728	7,549	15,277
<i>By 5-year age group</i>			
0-4	612	491	1,103
5-9	747	570	1,317
10-14	792	620	1,412
15-19	621	678	1,299
20-24	609	476	1,085
25-29	434	465	899
30-34	411	482	893
35-39	432	446	878
40-44	422	430	852
45-49	444	549	993
50-54	580	474	1,054
55-59	482	517	999
60-64	431	346	777
65+	710	1,006	1,716
<i>By educational attainment</i>			
Primary or less	1,988	1,590	3,578
Secondary	4,118	4,287	8,405
Tertiary	1,009	1,182	2,191
Not classified	612	491	1,103



Table 3.4. Population by age, education and by region, Cook Islands, 2019

	Rarotonga	Outer Islands
Total population	10,861	4,416
<i>By 5-year age group</i>		
0-4	733	370
5-9	824	493
10-14	881	531
15-19	929	370
20-24	863	222
25-29	742	157
30-34	721	172
35-39	734	144
40-44	705	147
45-49	667	326
50-54	786	268
55-59	665	334
60-64	487	290
65+	1,124	592
<i>By educational attainment</i>		
Primary or less	2,228	1,350
Secondary	5,922	2,483
Tertiary	1,979	212
Not classified	733	370

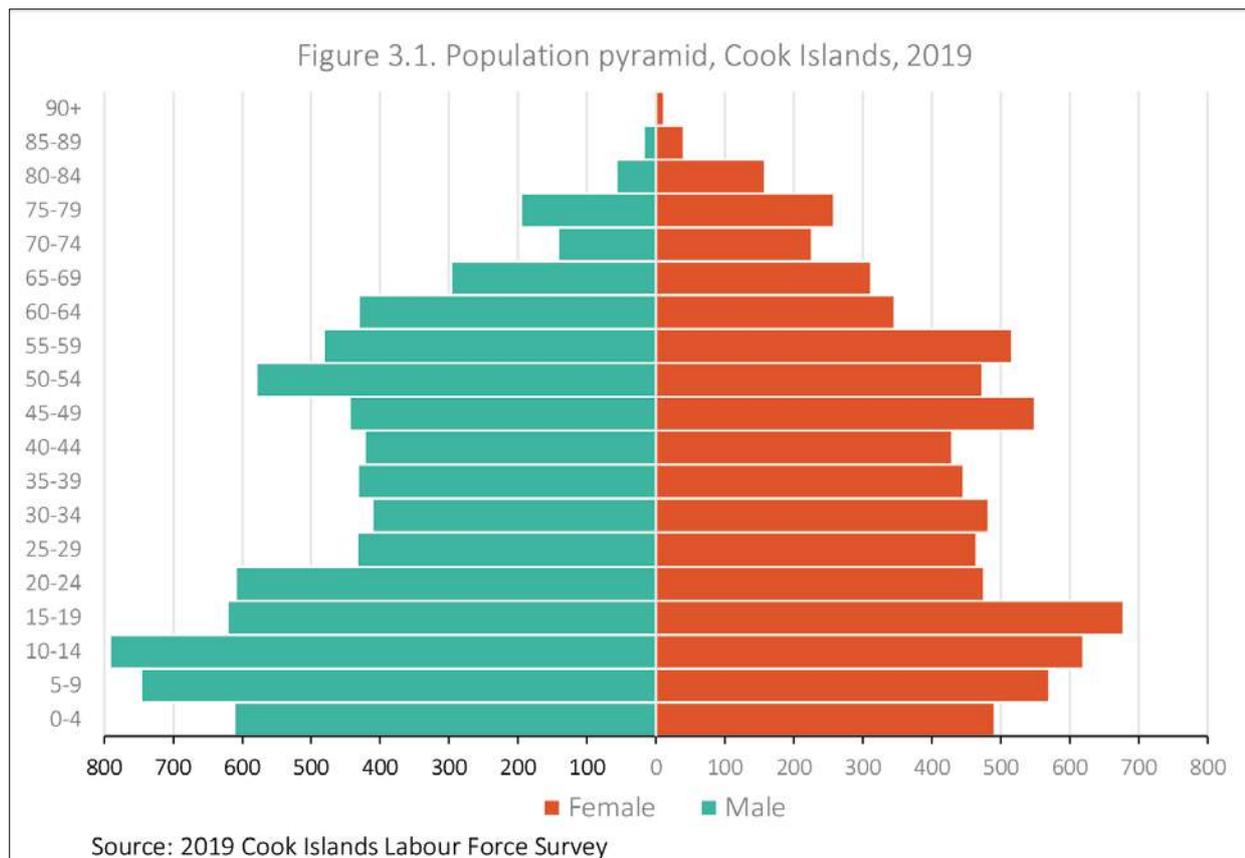
Tables 3.3 and 3.4 show the highest level of education completed by the population aged 15 and above. The data indicates that there were 2,191 people (14.3 percent) in the Cook Islands who have completed a university education, and 55 percent of the total population reached secondary level. Females were relatively better off than males in secondary and tertiary level; 56.8 percent of females reached secondary level, while 53.3 percent of males reached secondary level. 15.7 percent of females had tertiary education level, while for males the figure was 13.0 percent.



Age Structure

The current structure of the population, its past evolution and future trend can be examined by the population age pyramid, which is often viewed as the most effective way to graphically depict the age and sex structure of a population. The distribution of the total population by 5-year age band is based on the actual data collected in the LFS, as shown in Figure 3.1 below. It displays the size distribution of the age categories by male and female, separately.

Figure 3.1. Population pyramid, Cook Islands, 2019



The age pyramid of the Cook Islands takes the typical form of a more or less symmetric pyramid with a fairly large base and a small top. It reflects a population with relatively high birth rate and a relatively high death rate, and an average life expectancy.

The age pyramid at the lowest age groups reveals a relatively higher number of children in the age groups (5-9 years) than in age group (0-4 years). This may reflect an undercount of the very young children (0-4 years) or the beginning of the decline of the fertility rate in recent years.

A distinct feature of the Cook Islands population pyramid in 2019 is the indent for population aged between 25-49, especially for male population, it could be the reasons that these are Cook Islanders who have completed secondary education and have travelled overseas for further education or employment opportunities.

There are more female residents than male residents in the age group 65 and above. For age 25-49, the male population is smaller than the female population in each 5-year age band. For age under 24, there are more young male population than young female population. The young population (15-24 years) constitutes 30.8 percent of the total population. The total age dependency ratio was defined as the ratio of the sum of the young population (under age 15) and old-age population (aged 65 and over), divided by the core working-age population (aged 15 to 64). The age dependency ratio is thus a summary indicator of the burden falling on the working-age population. As shown in Table 3.3 and 3.4, the age dependency ratio in 2019 was 57.0 percent, meaning for every 100 persons of working age (aged 15-64) there were



57 dependent children (aged 0-14) and older persons (aged 65+). By region, it was 48.8 percent in Rarotonga and 81.7 percent in the Outer Islands. The disparity is not so surprising, considering that labour force tends to move to Rarotonga with most economic activities and employment opportunities.

3.3 INTERNATIONAL MIGRATION AND DISABILITY

Overall 72.3 percent (11,040 persons) of the total population were born in the Cook Islands; the remaining 27.7 percent (4,237 persons) were born in another country (Table 3.5). Female population had a slightly higher international migration rate of 28.1 percent than their male counterparts of 27.4 percent. Age group of 25-64 had the highest proportion of international migrant at a rate of 35.7 percent, followed by youth (aged 15-24) at 25.9 percent, young child (0-14) at 19.3 percent, and old age group (aged 65 and above) at 15.6 percent.

By educational attainment, 56.3 percent of the population with a tertiary education level were born overseas, which means the population with tertiary education level were dominated by residents born outside the Cook Islands. 73.8 percent of the population with a secondary education level and 81.8 percent of population with a primary or less education level were born in the Cook Islands. 65.3 percent of the Rarotonga residents were born in the Cook Islands, while 89.0 percent of the Southern Group and 90.8 percent of Northern Group Islands' residents were born in the Cook Islands (Figure 3.2).

Figure 3.2. Population (%) by place of birth, sex, age group, region and educational attainment, Cook Islands, 2019



The cut-off point used for the incidence of disability is 'a lot of difficulty' by the Washington Group on Disability Statistics Tools. The Overall incidence of disability was relatively low in the Cook Islands. It was estimated that there were 479 persons with disability, representing 3.1 percent of the total population. Men (3.3 percent) reported slightly higher incidents of disability than women (3.0 percent). Disability rates are significantly higher among age group 65 and above, where 11.3 percent of old-age population has a disability. The incidence of disability rate was slightly higher among population with primary or less education level (4.2 percent) than tertiary (3.7 percent) and secondary level (2.9 percent). Disability rates are higher among population living in the Southern Group (4.2 percent), compared to Rarotonga (2.9 percent) and the Northern Group (2.4 percent), as shown in Figure 3.3.



Figure 3.3. Incidence of disability (%) by sex, age group, region and educational attainment, Cook Islands, 2019

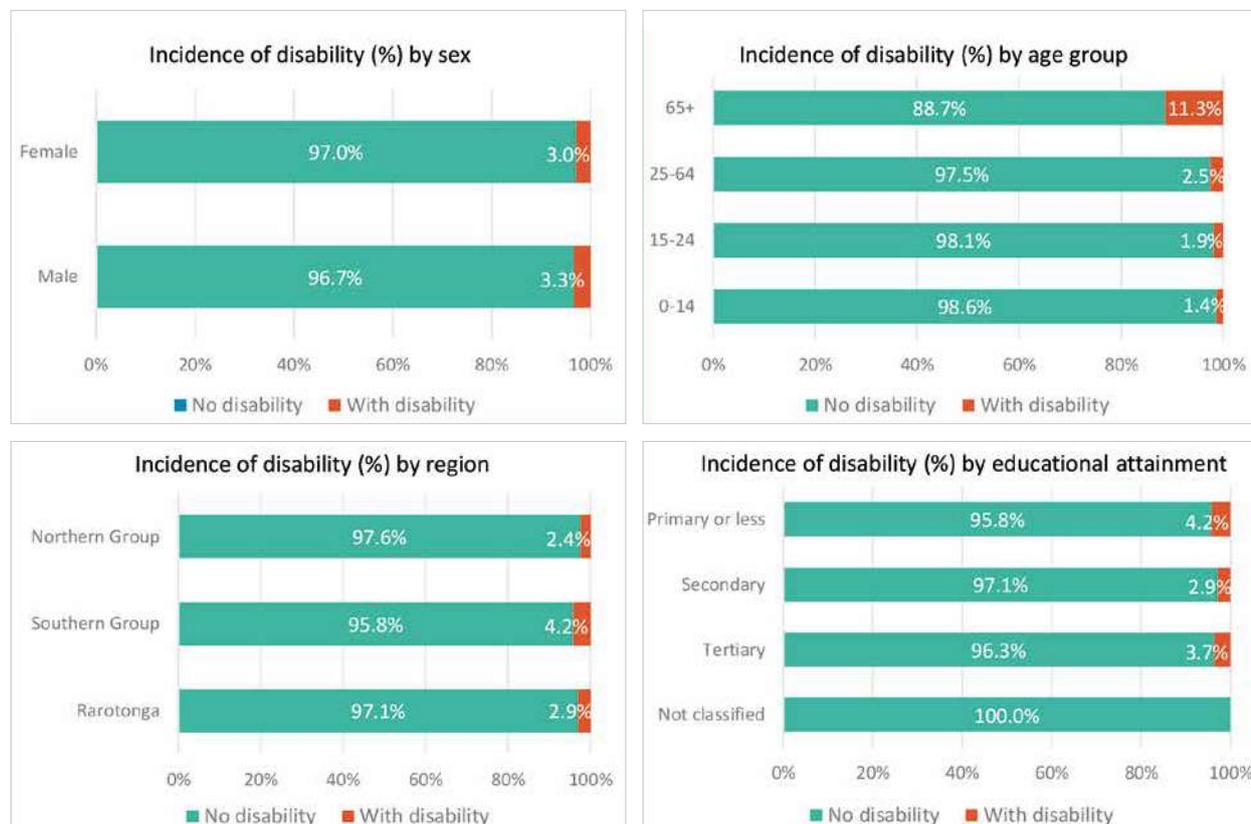


Table 3.5. Total population by place of birth and main socio-demographic characteristics, Cook Islands, 2019

Place of birth	Male		Female		Total	
	Cook Islands	Another country	Cook Islands	Another country	Cook Islands	Another country
Total population	5,614	2,114	5,427	2,123	11,040	4,237
<i>By age group</i>						
0-14	1,733	418	1,360	320	3,094	738
15-24	962	268	805	349	1,767	617
25-64	2,358	1,279	2,374	1,335	4,731	2,614
65+	561	149	888	118	1,449	267
<i>By educational attainment</i>						
Primary or less	1,610	378	1,317	274	2,926	652
Secondary	3,031	1,087	3,168	1,118	6,199	2,206
Tertiary	429	580	529	653	958	1,233
Not classified	544	69	413	78	956	147
<i>By main location</i>						
Rarotonga	3,561	1,899	3,528	1,873	7,089	3,772
Southern Group	1,534	145	1,381	215	2,915	360
Northern Group	519	70	518	35	1,037	105
Proportions of international migrants (%)	-	27.4%	-	28.1%	-	27.7%



Table 3.6. Total population by disability status and main socio-demographic characteristics, Cook Islands, 2019

	Male		Female		Total	
	No disability	With disability	No disability	With disability	No disability	With disability
Total population	7,473	255	7,326	224	14,798	479
<i>By age group</i>						
0-14	2,112	39	1,668	13	3,780	52
15-24	1,183	46	1,154		2,338	46
25-64	3,537	99	3,621	88	7,159	186
65+	640	71	883	123	1,522	194
<i>By educational attainment</i>						
Primary or less	1,899	89	1,527	63	3,426	152
Secondary	3,981	137	4,177	109	8,159	246
Tertiary	980	29	1,131	51	2,111	80
Not classified	612		491		1,103	
<i>By main location</i>						
Rarotonga	5,293	167	5,251	150	10,545	316
Southern Group	1,611	68	1,528	67	3,139	136
Northern Group	568	20	546	7	1,115	27
Incidence of disability (%)	-	3.3%	-	3.0%	-	3.1%

4. WORKING-AGE POPULATION AND LABOUR FORCE



Chapter 4 presents data and information on the working-age population, which refers to the population aged 15 and above, in line with the ILO definition. The working-age population consists of the labour force and the population outside the labour force. This chapter also covers data on the labour force (economically active population) by age, sex and by educational attainment. The labour force participation rate is the share of the labour force in the total working-age population.

4.1 WORKING-AGE POPULATION

In 2019, the Cook Islands working-age population (15 years old and above) was estimated at 11,445 people, corresponding to 74.9 percent of the total population, of whom 8,056 are in the labour force. This represents a relatively high labour force participation rate of 70.4 percent. Around three quarters of the working-age population (8,423 or 73.6 percent) were located in Rarotonga, only more than one quarter were located in the Outer Islands (3,022 or 26.4 percent). Furthermore, 51.3 percent of the working-age population were women and 48.7 percent were men. In the working-age population, the share of women exceeded the share of men by 2.6 percent.

Tables 4.1 and 4.2 show that in the labour force, 6,108 persons were 25-64 years old (of them, 3,197 were male and 2,911 were female), 1,404 persons were 15-24 years old (youth labour, 842 males and 562 females). 544 persons were aged 65 or older (299 males and 246 females). The largest labour force population was in Rarotonga, at 77.3 percent. 22.7 percent of the labour force was in the Outer Islands, reflecting that most economic activities and job opportunities were in Rarotonga.

Table 4.1. Working-age population and labour force by sex, Cook Islands, 2019

	Male	Female	Total
Working-age population, aged 15+	5,576	5,869	11,445
Labour force	4,338	3,718	8,056
<i>By age group</i>			
15-24	842	562	1,404
25-64	3,197	2,911	6,108
65+	299	246	544
<i>By educational attainment</i>			
Primary or less	300	117	417
Secondary	3,230	2,653	5,883
Tertiary	808	949	1,757
Outside labour force	1,238	2,150	3,389
Labour force participation rate (%)	77.8	63.3	70.4
<i>By age group</i>			
15-24	68.5	48.7	58.9
25-64	87.9	78.5	83.2
65+	42.1	24.5	31.7
<i>By educational attainment (%)</i>			
Primary or less	15.1	7.4	11.7
Secondary	78.4	61.9	70.0
Tertiary	80.1	80.3	80.2

Table 4.2. Working-age population and labour force by region, Cook Islands, 2019

	Rarotonga	Outer Islands
Working-age population, aged 15+	8,423	3,022
Labour force	6,231	1,826
<i>By age group</i>		
15-24	1,150	254
25-64	4,709	1,399
65+	371	173
<i>By educational attainment</i>		
Primary or less	269	148
Secondary	4,362	1,521
Tertiary	1,600	157
Outside labour force	2,192	1,196
Labour force participation rate (%)	74.0	60.4
<i>By age group</i>		
15-24	64.2	42.8
25-64	85.5	76.1
65+	33.0	29.2
<i>By educational attainment (%)</i>		
Primary or less	12.1	11.0
Secondary	73.7	61.3
Tertiary	80.8	74.1

4.2 LABOUR FORCE AND LABOUR FORCE PARTICIPATION RATE

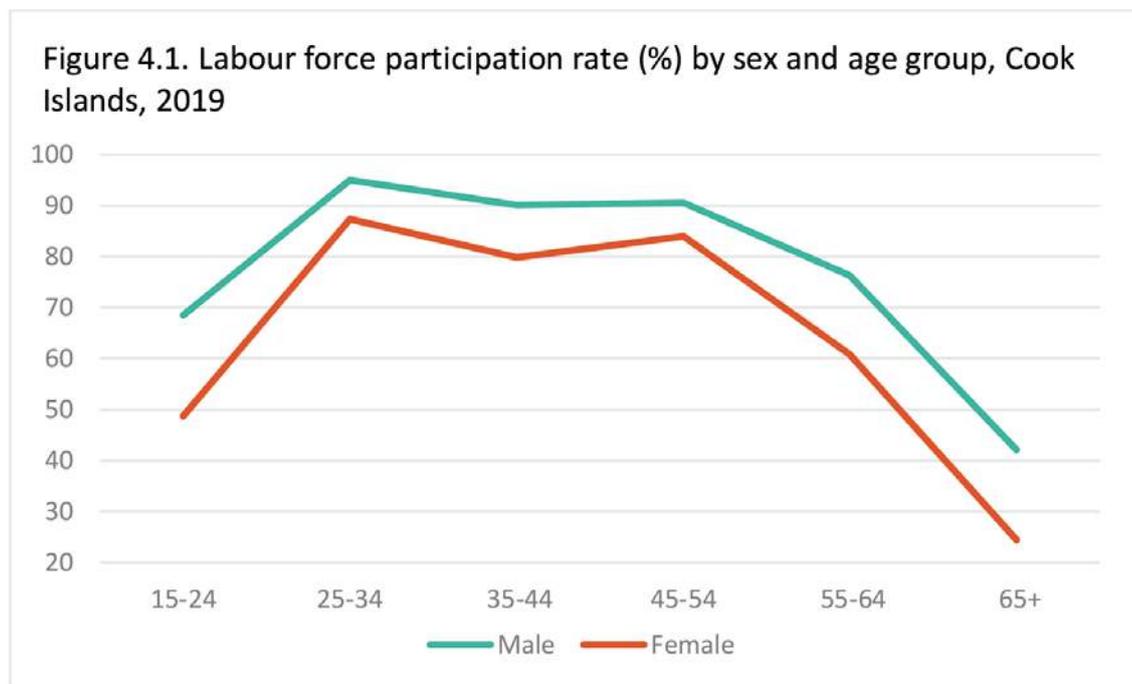
The labour force participation rate (LFPR) is an indicator of the level of labour market activity, which provides information about the relative size of the labour supply currently available for the production of goods and services. It is an important indicator for economic growth and is also used to monitor progress in the labour market. LFPR is defined as the number of persons in the labour force (employed and unemployed) expressed as a percentage of the total working age population. The breakdown of the labour force participation rate by sex, age and educational attainment gives a profile of the labour force participation as shown in Tables 4.1 and 4.2. Labour force participation rate by sex and region is shown in Table 4.3.

The Cook Islands' labour force increased at a rate of 3.5 percent from 7,783 in 2016 to 8,056 workers in 2019. The labour force participation rate in 2019 was estimated at 70.4 percent. The female labour force participation rate decreased slightly from 67 percent in 2016 to 63.4 percent in 2019, while males maintained a stable LFPR at 77.8 percent. The rate was higher for Rarotonga (74.0 percent) than that of the Outer Islands (60.4 percent). The highest labour force participation rates by broad age groups were among workers aged 25-34 (91.0 percent), followed by 45-54 (87.3 percent) and 35-44 (84.9 percent), and lowest in 65+ age group (31.7 percent). The youth LFPR was 58.9 percent, with male youth at 68.5 percent and female youth at 48.7 percent. The margin of error for the estimation of total LFPR is expected to be 3.9% at the 95% confidence level for the Cook Islands as a whole, where male LFPR has a margin of 4.3% and female LFPR has a margin of 4.9%. A detailed list of sampling errors is presented in Annex A.3.

Like most national LFPR curves, the Cook Islands labour force participation rate has an inverted-U shape (Figure 4.1). The male curve is above the female curve, reflecting a higher male labour force participation for all age groups. For both sexes, the curve increases for young people when they leave school and enter the labour market. It reaches a peak for the age group 25-34 years for both men and women. For age group 35-44 both men and women experienced a slightly decreased LFPRs, while in age group 45-54 there was a re-surge of LFPR for both sexes. LFPRs decrease slowly for men and more sharply for women, as people leave and retire from the labour market at older ages.



Figure 4.1. Labour force participation rate (%) by sex and age group, Cook Islands, 2019



It can be observed that the shape of the labour force participation rate among women in Figure 4.1 is somewhat like an M-pattern, with multiple peaks reflecting the change in labour force participation with marital status. Figure 4.2 gives the labour force participation rates for women in the age group (25-34, 35-44, 45-54, 55-64 years) by marital status. Married women in the abovementioned age group reached a LFPR of 73.5 percent, which was lowest compared to women in de facto relationship (85.6 percent) and never married/single women (88.6 percent). By age group, married women also have the lowest rate followed by women with de facto relationship and never married/single women. The likely reasons for lower female LFPR in age group include family responsibility and other factors retaining women from participation in the labour market. Analysis of data by marital status and presence of young children in the household may be helpful in this regard.



Figure 4.2. Female labour force participation rate (%) by marital status, Cook Islands, 2019

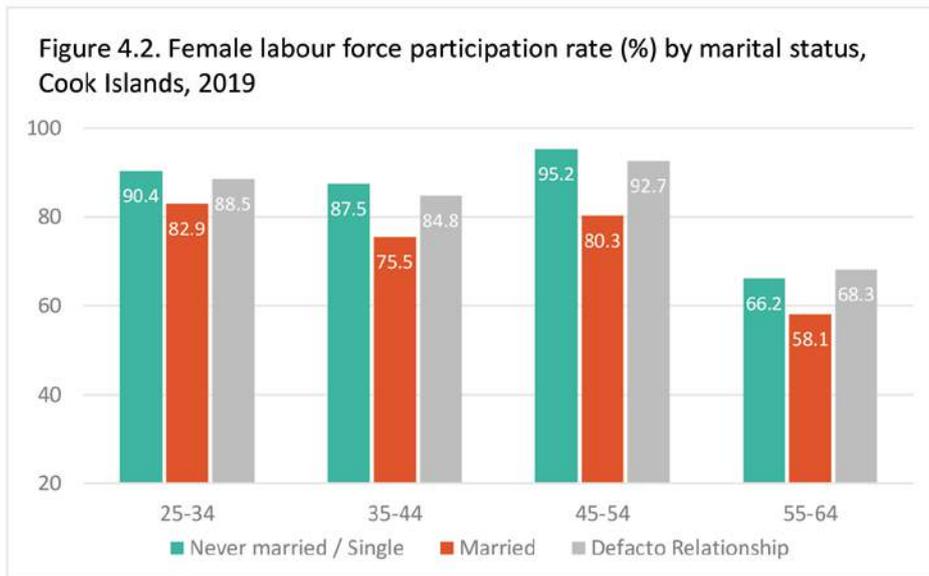


Figure 4.3. Male labour force participation rate (%) by marital status, Cook Islands, 2019

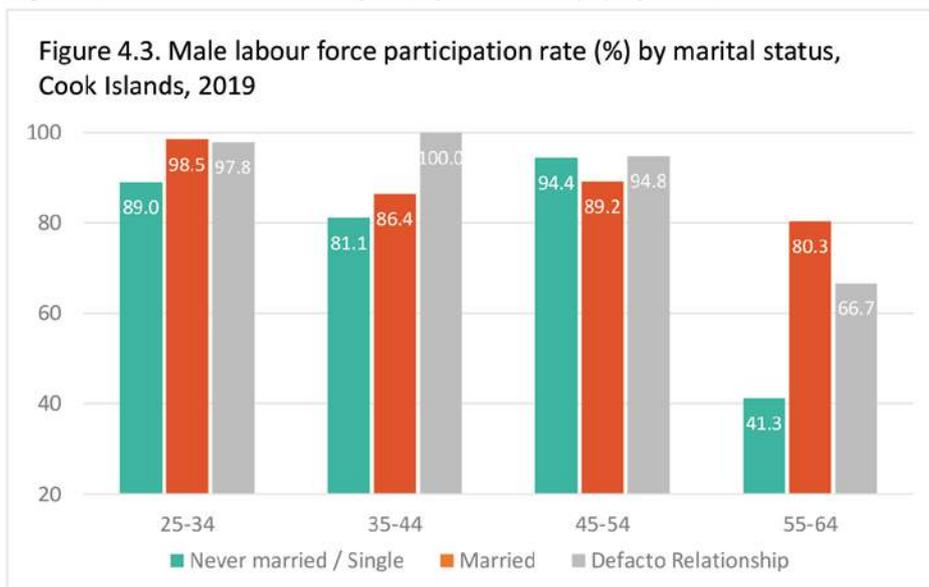


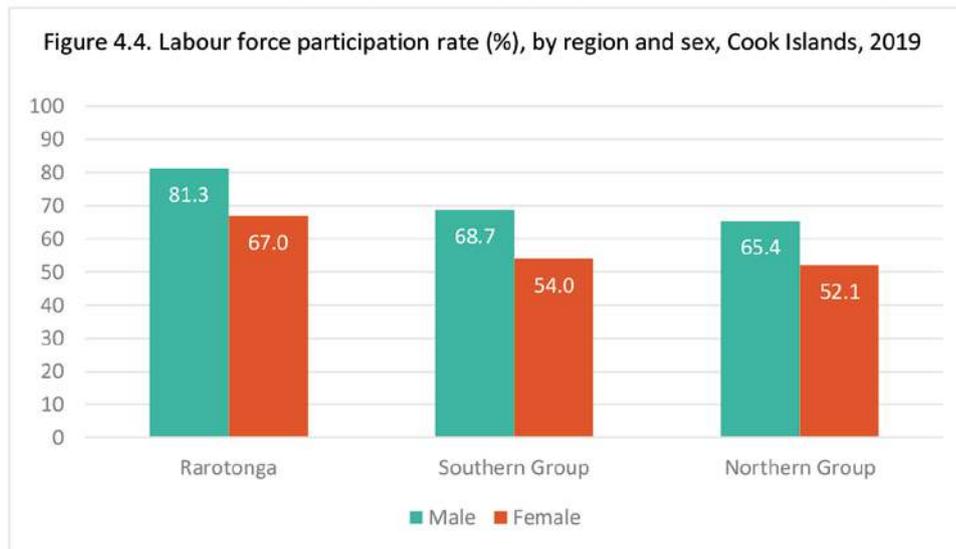
Figure 4.4 illustrates the differences in the labour force between Rarotonga and the Outer Islands (Southern Group and Northern Group). In Rarotonga, the vast majority of men and women are in the labour force with LFPRs of 81.3 percent and 67.0 percent, respectively. Labour force participation is the lowest in the Northern Group, and there is a significant gap between men and women, with 65.4 percent of men compared to 52.1 percent of women. In the Southern Group, 68.8 percent of men work, while 54 percent of women are in the labour force, and the gender gap is the biggest at 14.7 percentage points.



Table 4.3. Labour force and labour force participation rate, by sex and region, Cook Islands, 2019

Labour force	Sex		
	Male	Female	Total
Rarotonga	3,358	2,873	6,231
Southern Group	750	673	1,422
Northern Group	231	173	403
Total	4,338	3,718	8,056
Labour force participation rate (%)			
Rarotonga	81.3	67.0	74.0
Southern Group	68.7	54.0	60.8
Northern Group	65.4	52.1	58.9
Total	77.8	63.4	70.4

Figure 4.4. Labour force participation rate, by region and sex, Cook Islands, 2019



4.3 LABOUR FORCE BY EDUCATIONAL ATTAINMENT

The skill level of the labour force is to some extent determined by the educational attainment of the labour force participants. When the proportion of the labour force with secondary and tertiary (university) education is large, the skill level of the labour force is correspondingly high. Figure 4.5 presents the distribution of the labour force by educational attainment in the Cook Islands. Secondary education was the dominant level of educational attainment, comprising 73.0 percent of the labour force, while people with tertiary education accounted for 21.8 percent.



Figure 4.5. Distribution of labour force by educational attainment (%), Cook Islands, 2019

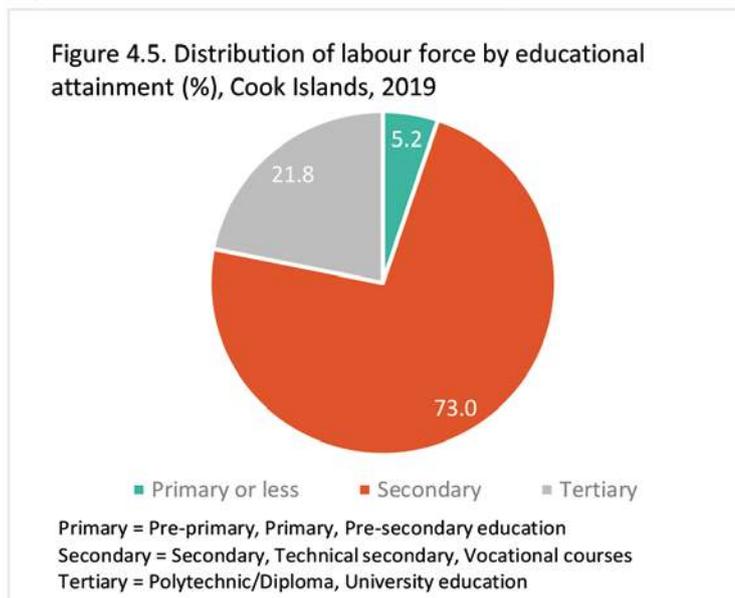
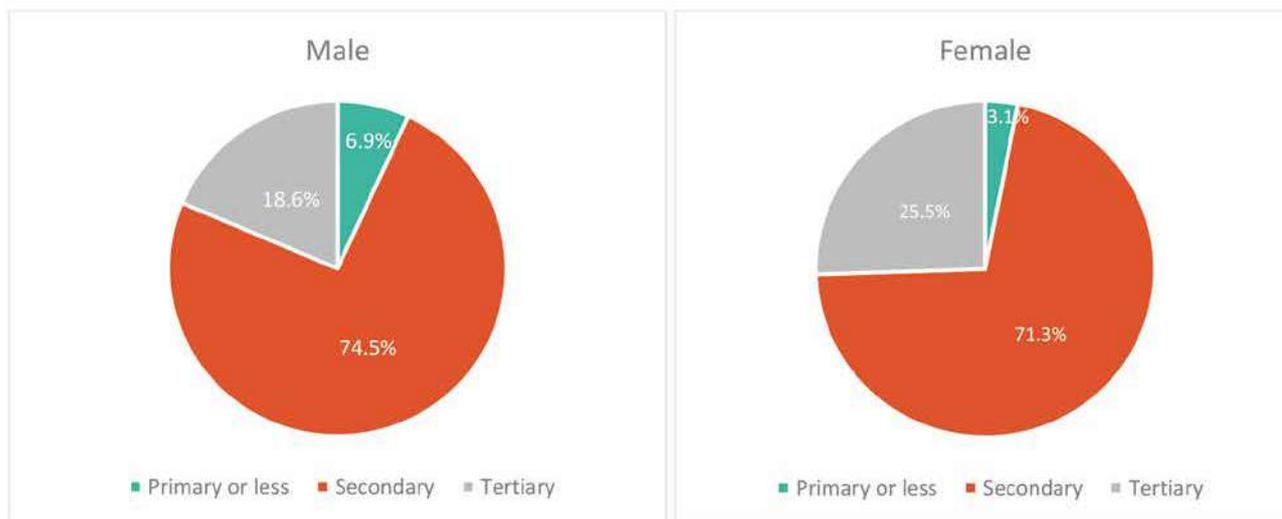


Figure 4.6 presents the distribution of the labour force by educational attainment for males and females, separately. The data show that 25.5 percent of the female labour force had tertiary education level, which was relatively higher than the male labour force. 71.3 percent of women in the labour force had secondary education level against men who sit at 74.5 percent.

Figure 4.6. Labour force by sex and education (% distribution), Cook Islands, 2019

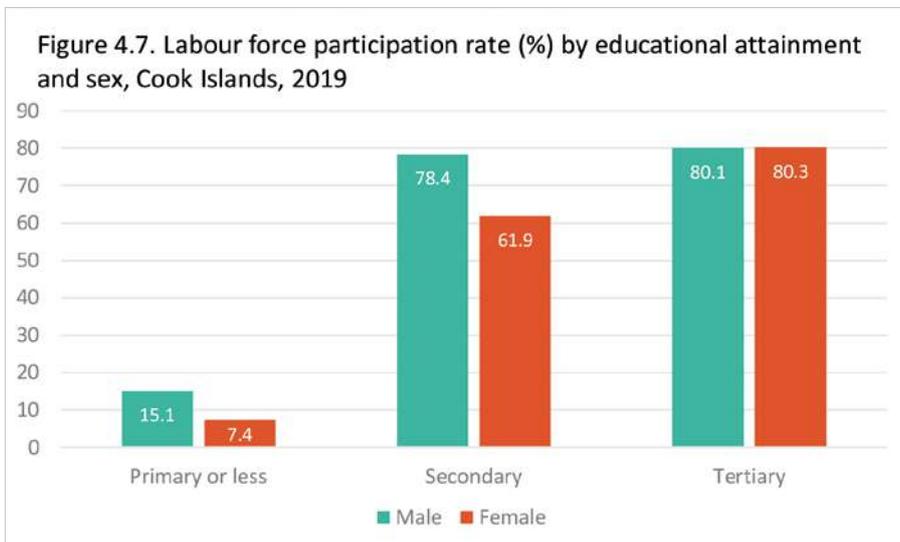


By education, the labour force participation rate varied significantly, with the highest 80.2 percent for tertiary level and lowest 11.7 percent for primary or less level for all labour force population. The close relationship between educational achievement and employment opportunity is widely recognised in most countries. In general, the higher an individual's educational attainment is, the higher the likelihood that person will be participating in the labour force.

Figure 4.7 illustrates that the highest labour force participation rate for males were among persons with tertiary level (80.1 percent) and lowest in primary or less group (15.1 percent). For females, the labour force participation rate was highest at 80.3 percent for tertiary level and lowest at 7.4 percent for primary or less group. In the secondary education group, males had a relatively higher LFPR than females, while at the tertiary level, females and males had similar LFPRs.



Figure 4.7. Labour force participation rate (%) by educational attainment and sex, Cook Islands, 2019



4.4 THE POPULATION OUTSIDE THE LABOUR FORCE

The population outside the labour force is defined as people who are neither in employment nor in unemployment, including students, old age and those engaged in unpaid domestic duties. In 2019, 3,389 persons were outside the labour force, including 22.2 percent of men of working age (1,238 persons) and over one-third (36.7 percent) of women of working age (2,151 persons). Women are more likely to be outside the labour force. About two-thirds of the population outside the labour force was located in Rarotonga (64.7 percent), compared to about 35.3 percent in the Outer Islands.

5. EMPLOYMENT



This chapter presents data on the characteristics of the employed population, such as the occupations and industries where people work, their level of education and their employment status. The employed population comprises all persons of working-age (15 years and above) who, during a specified period (seven days prior to the survey), were involved in any form of work for wage or salary, profit or family gain and including the production of goods for own consumption.

Employment by economic sector is further analysed in section 5.2. Given that the COVID-19 crisis is affecting workers and employers in all sectors, especially the service sectors, the pre-COVID-19 data and analysis on sector serve as a useful baseline for socio-economic analysis in the post-COVID-19 recovery.

5.1 EMPLOYED POPULATION

As shown in Table 5.1, of the 11,445 working-age population aged 15 years or above, 7,954 of them (69.5 percent) were in employment or engaged in economic activity; 3,685 of them (46.3 percent) were females. 1,356 persons or 17.0 percent of the employed population was in the youth age groups (15-24 years old). About three quarters (76.1 percent) of the employed population was in the adult age group (25-64), whereas only 6.9 percent of the employed population was from the age group 65+ years old. More than three quarters of the population in employment (77.6 percent) were located in Rarotonga, and less than one quarter (22.4 percent) was located in the Outer Islands. Employment-to-population ratio (EPR)

Table 5.1. Employment by sex, Cook Islands, 2019

	Male	Female	Total
Employment, aged 15+	4,270	3,685	7,954
<i>By age group</i>			
15-24	803	552	1,356
25-64	3,168	2,886	6,054
65+	299	246	544
<i>By economic sector (% distribution)</i>			
Agriculture, forestry and fishery	4.6	0.2	2.6
Industry	17.7	4.4	11.5
B - Mining and quarrying	0.3	0.3	0.3
C - Manufacturing	5.1	2.3	3.8
D - Electricity, gas, steam and air conditioning supply	1.9	1.1	1.6
E - Water supply; sewerage, waste management and remediation activities	1.2	0.0	0.6
F - Construction	9.1	0.6	5.2
Services	77.7	95.4	85.9
G - Wholesale and retail trade; repair of motor vehicles and motorcycles	14.3	22.5	18.1
H - Transportation and storage	8.2	5.5	6.9
I - Accommodation and food service activities	16.3	24.1	19.9
J - Information and communication	2.6	2.7	2.6





	Male	Female	Total
K - Financial and insurance activities	0.7	3.8	2.1
M - Professional, scientific and technical activities	2.1	2.6	2.3
N - Administrative and support service activities	4.5	3.3	3.9
O - Public administration and defence; compulsory social security	21.5	12.8	17.5
P - Education	2.5	7.6	4.9
Q - Human health and social work activities	1.1	6.3	3.5
R - Arts, entertainment and recreation	0.3	0.7	0.5
S - Other service activities	1.5	1.2	1.4
T - Activities of households as employers	1.7	2.3	2.0
U - Activities of extraterritorial organisations and bodies	0.2	0.2	0.2
X - Not elsewhere classified	0.3	0.0	0.2
<i>By status of employment (% distribution)</i>			
Employees	83.9	80.7	82.4
Employers	5.4	4.9	5.1
Own-account workers	6.8	7.6	7.2
Contributing family workers	3.9	6.9	5.3
<i>By occupation (% distribution)</i>			
Managers	6.3	10.9	8.4
Professionals	9.9	12.9	11.3
Technicians and associate professionals	14.5	11.9	13.3
Clerical support workers	3.1	15.2	8.7
Service and sales workers	17.3	36.4	26.1
Skilled agricultural, forestry & fishery workers	6.9	0.2	3.8
Craft and related trades workers	17.2	3.8	11.0
Plant and machine operators and assemblers	7.2	1.7	4.7
Elementary occupations	17.6	6.9	12.7
Employment-to-population ratio, aged 15+ (%)	76.6	62.8	69.5
<i>By age group</i>			
15-24	65.3	47.9	56.9
25-64	87.1	77.8	82.4
65+	42.0	24.4	31.7



Table 5.2. Employment by region, Cook Islands, 2019

	Rarotonga	Outer Islands
Employment, aged 15+	6,173	1,781
<i>By sex</i>		
Male	3,312	958
Female	2,861	824
<i>By age group</i>		
15-24	1,128	228
25-64	4,674	1,380
65+	371	173
<i>By economic sector (% distribution)</i>		
Agriculture, forestry and fishery	2.3	3.7
Industry	12.1	9.4
B - Mining and quarrying	0.4	0.0
C - Manufacturing	4.3	2.1
D - Electricity, gas, steam and air conditioning supply	1.3	2.6
E - Water supply; sewerage, waste management and remediation activities	0.6	0.7
F - Construction	5.5	4.1
Services	85.7	86.8
G - Wholesale and retail trade; repair of motor vehicles and motorcycles	18.7	16.0
H - Transportation and storage	7.0	6.6
I - Accommodation and food service activities	21.6	14.2
J - Information and communication	2.8	2.1
K - Financial and insurance activities	2.5	1.0
M - Professional, scientific and technical activities	3.0	0.0
N - Administrative and support service activities	4.8	1.0
O - Public administration and defence; compulsory social security	12.6	34.3
P - Education	4.2	7.2
Q - Human health and social work activities	3.8	2.5
R - Arts, entertainment and recreation	0.5	0.2
S - Other service activities	1.7	0.4
T - Activities of households as employers	2.3	0.8
U - Activities of extraterritorial organisations and bodies	0.2	0.0
X - Not elsewhere classified	0.0	0.7
<i>By status of employment (% distribution)</i>		
Employees	84.6	75.0





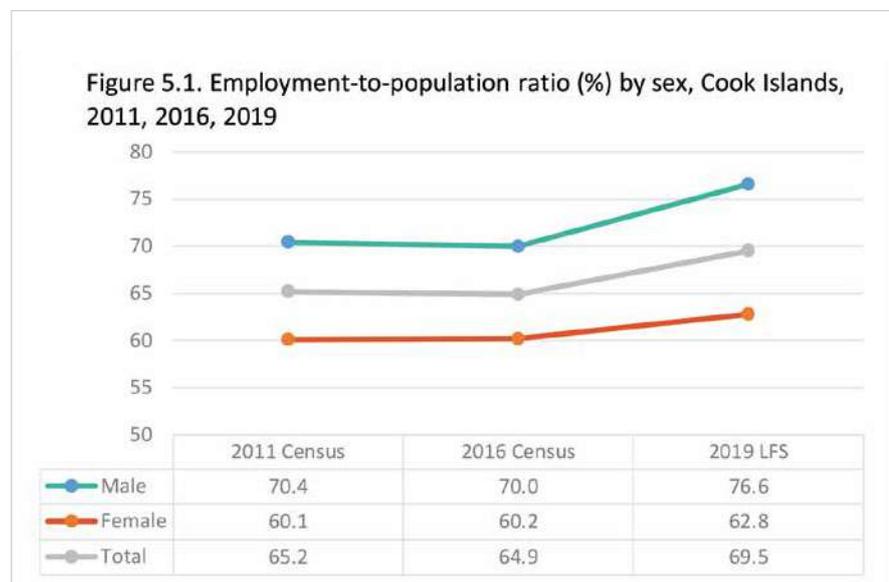
	Rarotonga	Outer Islands
Employers	5.2	5.0
Own-account workers	5.3	13.8
Contributing family workers	5.0	6.3
<i>By occupation (% distribution)</i>		
Managers	9.7	4.0
Professionals	12.2	8.4
Technicians and associate professionals	13.2	13.6
Clerical support workers	9.1	7.5
Service and sales workers	27.5	21.4
Skilled agricultural, forestry & fishery workers	3.5	4.6
Craft and related trades workers	9.4	16.8
Plant and machine operators and assemblers	4.2	6.2
Elementary occupations	11.3	17.4
Employment-to-population ratio, aged 15+ (%)	73.3	59.0
<i>By age group</i>		
15-24	64.2	42.8
25-64	85.5	76.1
65+	33.0	29.3

Aggregate employment generally increases with a growing population. Therefore, the ratio of employment to the working-age population is an important indicator of the economy to provide employment to a growing population. A decline in the employment-to-population ratio is often regarded as an indicator of economic slowdown and a decline in total employment is an indicator of a more severe economic downturn.

In 2019, the employment-to-population ratio of the Cook Islands was 69.5 percent. Compared to the 2016 Census results of 64.9 percent, it reflects its population's increasing engagement and jobs in economic activities. Figure 5.1 illustrates a significant increase of male employment-to-population ratio from 70.0 percent in 2016 to 76.6 percent in 2019. Female employment-to-population ratio has increased slightly from 60.2 percent in 2016 to 62.8 percent in 2019.



Figure 5.1. Employment-to-population ratio (%) by sex, Cook Islands, 2011, 2016, 2019



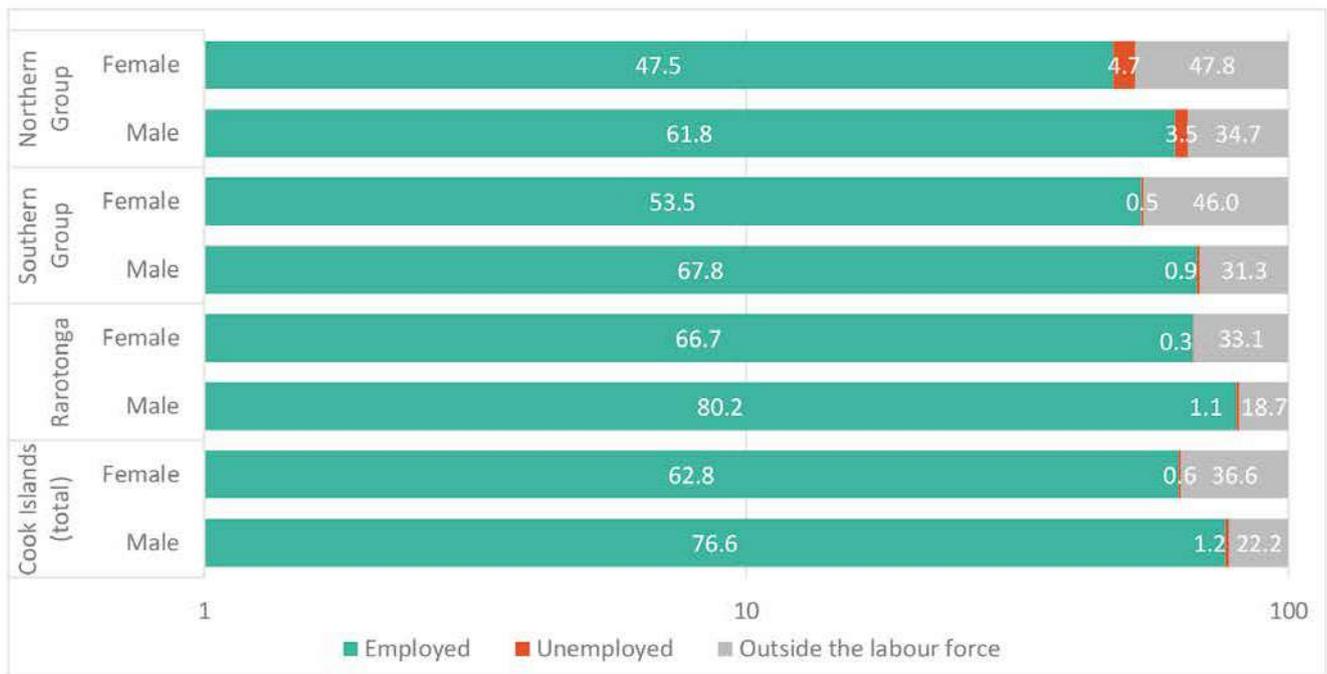
In all areas of the Cook Islands, except the Northern Group, the majority of adult men and women (age 15 and above) are employed (Figure 5.2). The proportion of unemployed population was highest for men in the Northern Group. The female unemployment rate (4.7 percent) was slightly higher than the male rate (3.5 percent). In all locations, women were more likely to be outside the labour force than men, most likely due to their tendency for being the primary carer for children and other responsibilities at home.

Table 5.3. Population in employment, unemployment or outside the labour force, by sex and region, Cook Islands, 2019

		Labour force status		
		Employed	Unemployed	Outside the labour force
Cook Islands (total)	Male	4,270	68	1,238
	Female	3,685	34	2,150
Rarotonga	Male	3,312	46	774
	Female	2,861	12	1,418
Southern Group	Male	740	10	342
	Female	666	7	573
Northern Group	Male	218	12	122
	Female	158	15	159



Figure 5.2. Percent of population in employment, unemployment or outside the labour force (%) as of working-age population, by sex and region, Cook Islands, 2019



5.2 EMPLOYMENT BY ECONOMIC SECTOR

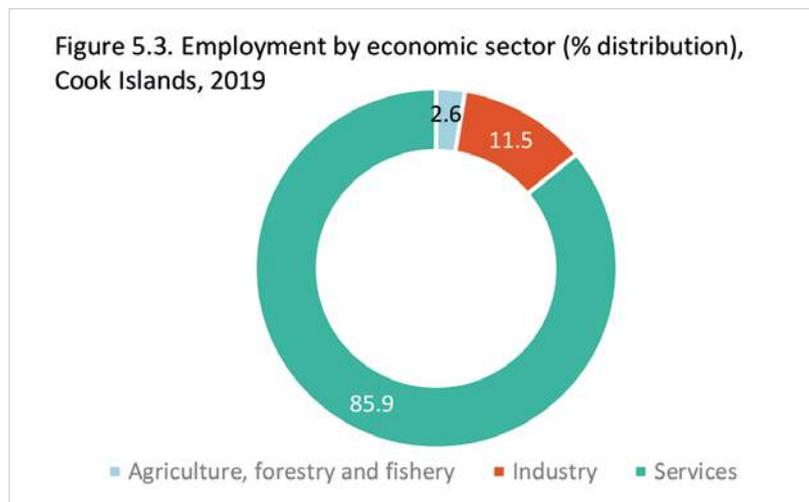
The economy is divided into three broad sectors: (a) agriculture, including farming, fishing, pearl farming, forestry and logging; (b) industry, including manufacturing, construction and mining; and (c) services, including tourism, retail sales, public administration, transportation, education and health.

In terms of the distribution of the employed population by broad economic sector, Figure 5.3 illustrates that the economic sector with the largest number of employment was the service sector (85.9 percent), followed by the industry sector (11.5 percent), and agriculture, forestry and fishing (2.6 percent).

According to Table 5.2, 21.6 percent of workers were employed in the accommodation and food service activities sector in Rarotonga, while only 14.2 percent were employed in the Outer Islands. Public administration, defence and compulsory social security sector is more prominent in the Outer Islands (34.3 percent) compared to 12.6 percent in Rarotonga. Other large sectors in terms of employment were administrative and support service activities (9.0 percent) and construction (8.6 percent).

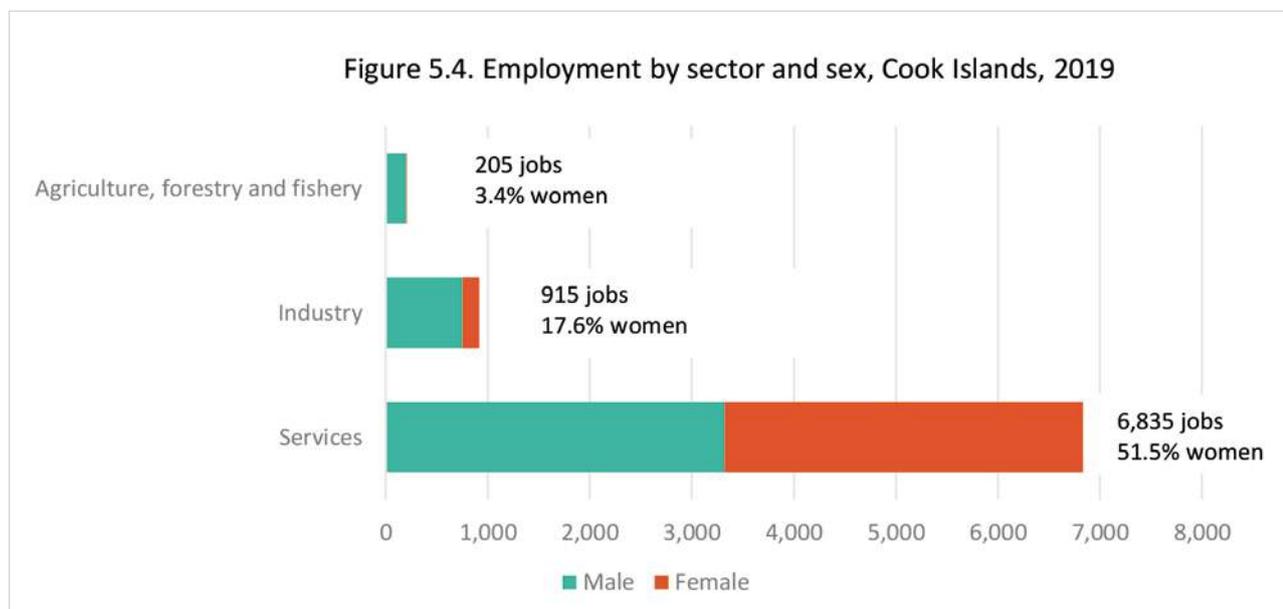


Figure 5.3. Employment by economic sector (% distribution), Cook Islands, 2019



Most jobs are in the services sector. The services sector employs the greatest number of people (6,835 jobs) and represents 85.9 percent of all employment in the Cook Islands, where women held 51.5 percent of the jobs in the services sector. By comparison, the industry sector provided 11.5 percent or 915 jobs and only 17.6 percent of jobs were held by women. The agriculture, forestry and fishery sector comprised only 2.6 percent (205 jobs), and men dominated the agriculture sector by holding 96.6 percent of jobs.

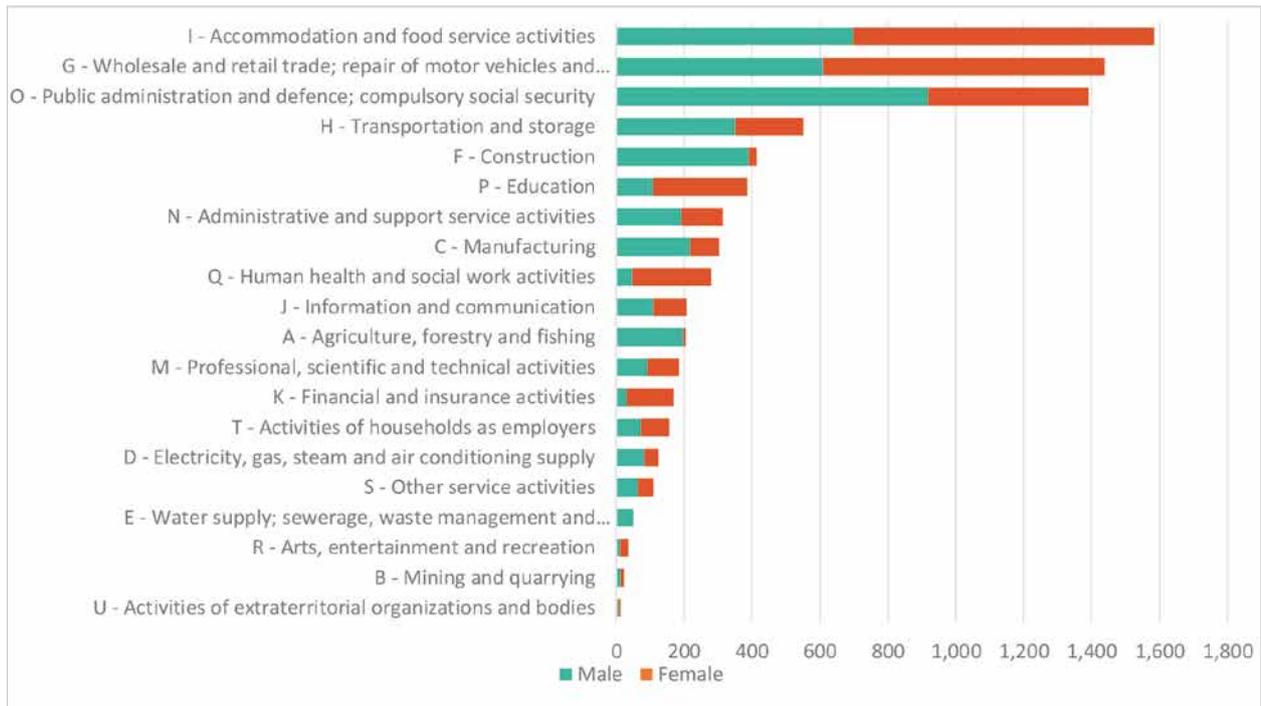
Figure 5.4. Employment by sector and sex, Cook Islands, 2019



Within these three sectors are a number of sub-sectors. Figure 5.5 reflects that accommodation and food service activities sub-sector was the biggest sector of employment (20.0 percent), followed by the wholesale and retail trade, repair of motor vehicles and motorcycles sub-sector (18.1 percent) and the public administration, defence and compulsory social security sub-sector (17.5 percent). More women were working in the accommodation and food service activities and wholesale and retail trade sub-sector than men, while more men were working in the public administration and defence than women.



Figure 5.5. Sectors of employment, by number and sex of those employed as main activity, Cook Islands, 2019



Public versus private sector

The private sector was the main sector in the Cook Islands with around 5,518 employed, providing almost two-thirds (69.4 percent) of the jobs. Around one-third (30.6 percent) of jobs are in the public sector. Women comprise 44.5 percent of the employed population in the public sector, which was lower than men (55.5 percent). In total, only 29.4 percent of women 31.7 percent of men worked in the public sector in 2019.

The private sector is most dominant in Rarotonga, where it employed 75.2 percent of the employed population, while in the Southern Group and Northern Group private sector employed 57.1 percent and 19.8 percent of the employed population, respectively. It is only in the Northern Group that the private sector plays a minor role, with over three quarters (80.2 percent) of jobs being in the public sector (Figure 5.6).

Figure 5.6. Employment by public-private sector of economic activities and region, Cook Islands, 2019

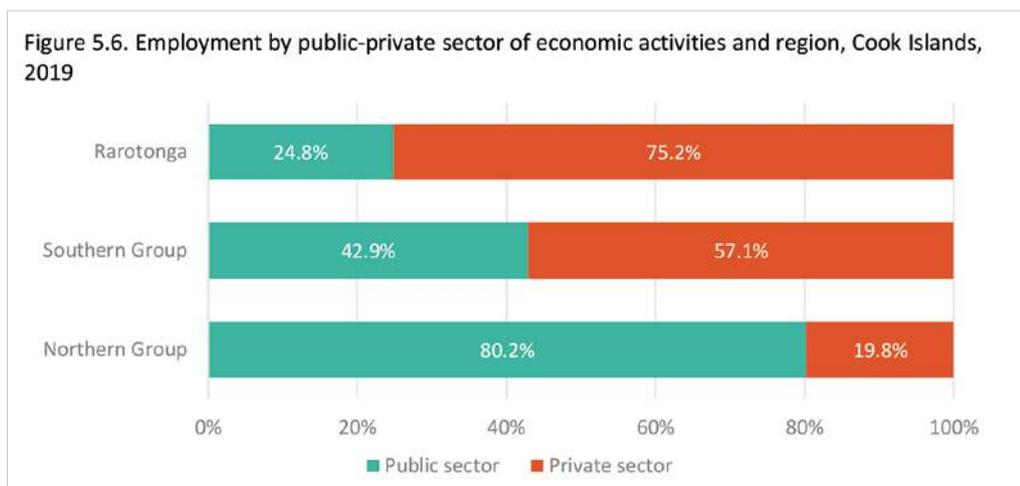




Table 5.3. Employment by public-private sector of economic activities, sex, and region, Cook Islands, 2019

Table 5.3. Employment by public-private sector of economic activities, sex, and region, Cook Islands, 2019					
Public-private sector of economic activities - main job		Male	Female	Total	
Total		4,270	3,684	7,954	
Public sector		1,353	1,083	2,436	
Private sector		2,917	2,601	5,518	
Share of employment (%)					
Public sector		31.7	29.4	30.6	
Private sector		68.3	70.6	69.4	
Public-private sector of economic activities - main job					
	Rarotonga	Southern Group	Northern Group	Total	
Total	6,173	1,405	375	7,954	
Public sector	1,533	602	301	2,436	
Private sector	4,640	803	74	5,518	
Share of employment (%)					
Public sector	24.8	42.9	80.2	30.6	
Private sector	75.2	57.1	19.8	69.4	

Note: Public sector includes state owned enterprises. Private sector includes partnerships, and self-employed/sole proprietor. Southern Group excludes Rarotonga.

5.3 EMPLOYMENT BY STATUS IN EMPLOYMENT

In the Cook Islands, the largest share of the employed population (82.4 percent) worked as employees, followed by own-account workers (7.2 percent), contributing family workers (5.3 percent), and employers (5.1 percent), as shown in Table 5.1. Both the majority of men and women were employees (83.9 and 80.7 percent, respectively) as shown in Figure 5.7.

Figure 5.7. Status in employment by sex, Cook Islands, 2019





In Rarotonga and the Outer Islands, the majority of workers were employees (85.6 and 75.0 percent, respectively). As shown in Figure 5.8, there was a relatively large share of own-account workers for both sexes in the Southern Group, compared to Rarotonga.

The job market in the Cook Islands differs vastly between Rarotonga and the Outer Islands. The majority of job opportunities exist in Rarotonga, the main island. Outside of there, the proportion of employees was highest in the Northern Group, with 90.4 percent of men and 69.4 percent of women in labour force were employees. As shown in Figure 5.6, public sector employment (80.2 percent) was dominant in the Northern Group, which would explain the high proportion of labour force working as employees. However, the size of the labour force in the Northern Group was small (403 persons), and this equated to 329 persons working as employees (209 men and 120 women). The Northern Group had a higher proportion of people who were unemployed, with male unemployment rate of 5.2 percent and female 8.7 percent. Opportunities for employee work were lower in the Southern Group, where only 76.7 percent of men and 64.2 percent of women in labour force were employees. In Rarotonga, 84.2 percent of women and 83.4 percent of men in labour force were employees.

Figure 5.8. Distribution of labour force (%) by main activity status, sex and region, 2019

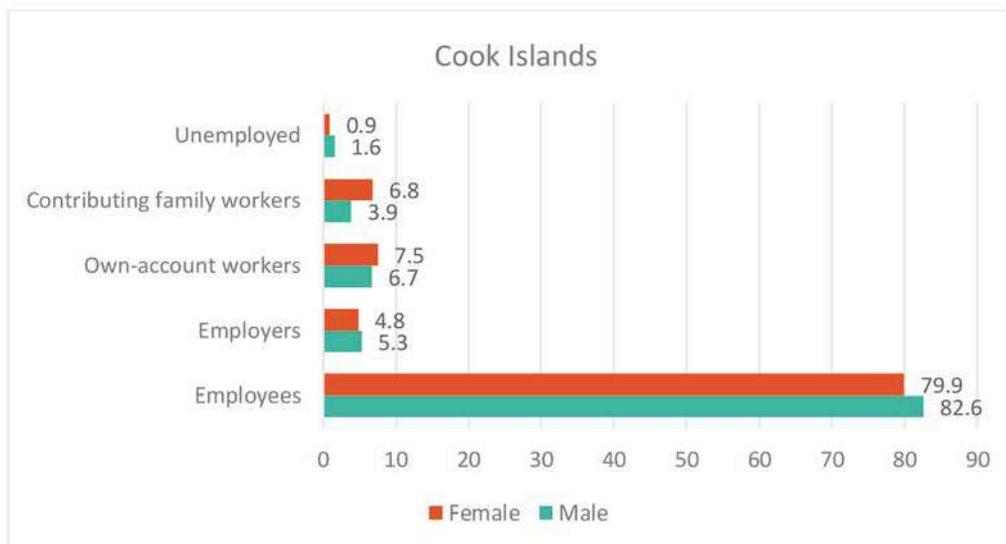




Figure 5.8. Distribution of labour force (%) by main activity status, sex and region, 2019





5.4 EMPLOYMENT BY OCCUPATION

The LFS 2019 provides data on the distribution of employed persons by major occupational groups in island divisions, for men and women and broad age groups, separately.

The 10 most common occupations for main activity are shown in Table 5.4 at the national level. Sales workers constituted the largest occupational group within the employed population (869 persons or 10.9 percent), followed by personal service workers (9.2 percent) and business and administration associate professionals (5.4 percent). Other well-represented occupations in the Cook Islands workforce were customer services clerks (4.4 percent), protective services workers (3.9 percent), and agricultural, forestry and fishery labourers (3.8 percent). The most common occupation among women was sales workers (17.9 percent) and among men was protective services workers (6.9 percent). Information on the types of occupations most common in the Cook Islands' labour market by sex are summarised in Appendix Table A.4.19 and A.4.20.

Table 5.4. Top 10 occupations at main job for total employed population, Cook Islands, 2019

Occupation (ISCO-08), 2-digit level - main job	Total	
	No.	%
Sales workers	869	10.9
Personal service workers	732	9.2
Business and administration associate professionals	426	5.4
Customer services clerks	351	4.4
Protective services workers	308	3.9
Agricultural, forestry and fishery labourers	296	3.7
Drivers and mobile plant operators	280	3.5
Teaching professionals	277	3.5
Chief executives, senior officials and legislators	266	3.3
Labourers in mining, construction, manufacturing and transport	258	3.2

In regards to the youth (15-24 years old), 16.7 percent of young people were employed in sales workers occupations against 10.9 percent of adults. 8.6 percent were employed as labourers in mining, construction, manufacturing and transport occupations, followed by agricultural, forestry and fishery labourers (7.1 percent) and protective services workers (6.4 percent).

Figure 5.10. Top 10 occupations at main job for youth employed population, Cook Islands, 2019

Occupation (ISCO-08), 2-digit level - main job	Youth total	
	No.	%
Sales workers	227	16.7
Labourers in mining, construction, manufacturing and transport	117	8.6
Agricultural, forestry and fishery labourers	96	7.1
Protective services workers	87	6.4
Personal service workers	71	5.2
Drivers and mobile plant operators	70	5.2
Building and related trades workers, excluding electricians	66	4.9
Legal, social, cultural and related associate professionals	51	3.8
Customer services clerks	47	3.5
Market-oriented skilled agricultural workers	44	3.2

6. UNEMPLOYMENT AND LABOUR UNDERUTILIZATION



This chapter presents the characteristics of the unemployed population, as well as other unmet needs for employment in the population. It further describes unemployment by age, sex and region. The chapter also discusses different measures of labour underutilization.

Unemployment refers to those persons within the working-age population who were not in employment, carried out activities to seek employment or starting a business during the reference period ('last week') prior to the actual date of the interview, and were currently available to take up employment or to start a business given a business opportunity 'in the last week' or 'within the next two weeks'.

Nevertheless, the criterion of seeking work, persons without work and currently available for work who had made arrangements to take up paid employment or undertake a self-employed activity at a date subsequent to the reference period, of less than three months (future job starters) should be considered as unemployed.

6.1 UNEMPLOYED POPULATION

The LFS results indicate that there were 102 people who classified themselves as unemployed in the Cook Islands in 2019, corresponding to a national unemployment rate of 1.3 percent, including 34 women (33.3 percent of total unemployed persons) and 68 men (66.7 percent of total unemployed persons) as shown in Table 6.1. In Rarotonga, 58 persons were unemployed (56.9 percent of total unemployment). Northern Group had the highest unemployment rate of 7.0 percent. The margin of error for the estimation of unemployment rate is expected to be 0.7% at the 95% confidence level for the Cook Islands as a whole, where male unemployment rate has a margin of 1.2% and female unemployment rate has a margin of 0.8%. A detailed list of sampling errors is presented in Annex A.3.

The unemployment rate was much higher among young people, about 48 youth aged 15-24 were unemployed with an unemployment rate of 3.4 percent, which was the highest in all age groups. Youth in the Outer Islands had an unemployment rate of 10.2 percent.

Table 6.1. Unemployment, Cook Islands, 2019

	Male	Female	Total
Unemployment, aged 15+	68	34	102
<i>By age group</i>			
15-24	39	9	48
25-64	29	24	54
65+	0	0	0
Unemployment rate, aged 15+ (%)	1.6	0.9	1.3
<i>By age group</i>			
15-24	4.6	1.6	3.4
25-64	0.9	0.8	0.9
65+	0.0	0.0	0.0
<i>By region</i>			
Rarotonga	46	12	58
Southern Group	10	7	16
Northern Group	12	15	28
<i>By region (%)</i>			
Rarotonga	1.4	0.4	0.9
Southern Group	1.3	1.0	1.1
Northern Group	5.2	8.7	7.0



Table 6.2. Unemployment by regions, Cook Islands, 2019

	Male	Female	Total
Unemployment, aged 15+	68	34	102
<i>By age group</i>			
15-24	39	9	48
25-64	29	24	54
65+	0	0	0
Unemployment rate, aged 15+ (%)	1.6	0.9	1.3
<i>By age group</i>			
15-24	4.6	1.6	3.4
25-64	0.9	0.8	0.9
65+	0.0	0.0	0.0
<i>By region</i>			
Rarotonga	46	12	58

To some extent, the unemployment rate signals the underutilization of the labour supply. The unemployment rate is defined as the percentage of unemployed persons in the labour force. It reflects the inability of an economy to generate employment for those persons who want to work but are not doing so, even though they are available for employment and actively seeking jobs. It is thus seen as an indicator of the efficiency and effectiveness of an economy to absorb its labour force and of the performance of the labour market.

Figure 6.1 presents the unemployment rate by sex and age group. Of those, youths aged 15-24 were more likely to be unemployed than adults in 2019. The male youth unemployment rate (4.6 percent) was more than twice the rate of female (1.6 percent). For adult age group 25-64, male unemployment rate (0.9 percent) was slightly higher than that of female (0.8 percent). All persons in the labour force aged above 65 were employed.

In terms of the educational attainment, Figure 6.2 shows that unemployment rate was highest among women with primary or less education level (7.7 percent) and men with secondary level (2.0 percent). For persons with Tertiary education level, the unemployment rates were 0 for all sex, age and region groups. Persons living in the Outer Islands with primary or less education level had the highest unemployment of 9.5 percent in the country.

Figure 6.1. Unemployed persons aged 15 years and above and unemployment rate (%), by age group and sex, Cook Islands, 2019

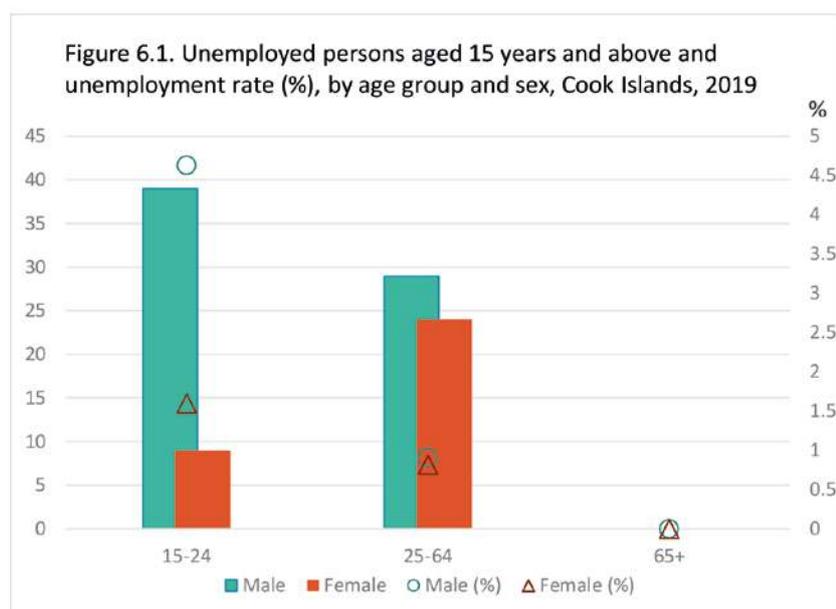
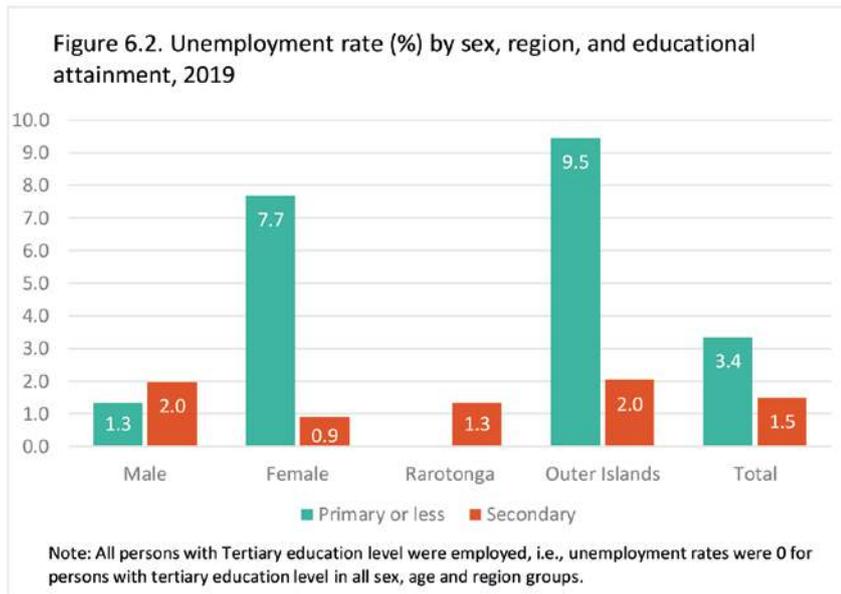




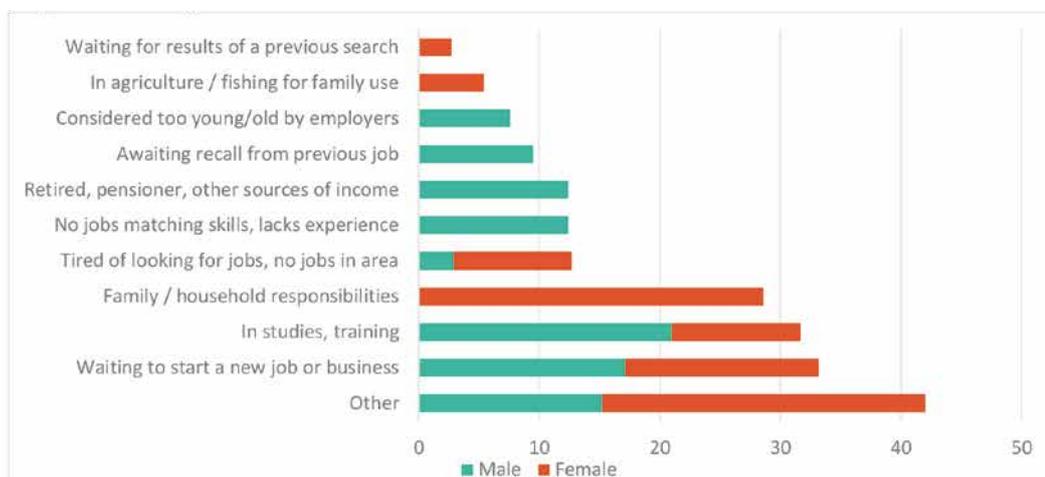
Figure 6.2. Unemployment rate (%) by sex, region and educational attainment, Cook Islands, 2019



Reasons for not looking for job

Figure 6.3 illustrates the reasons for not looking for a job among the persons not in the labour force aged 15 and above by sex. Family/household responsibility was the prime reason (28.6 percent) for women not looking for a job at the national level; among men, in study and training stood as the core reason (21.0 percent).

Figure 6.3. Persons aged 15 years and above as % of the unemployed, by sex and reasons for not looking for job, Cook Islands, 2019



6.2 LABOUR UNDERUTILIZATION

Potential labour force together with time-related underemployment and unemployment are the three main components of labour underutilization. Labour underutilization refers to mismatches between labour supply and demand, which translates into an unmet need for employment among the population.



The international standards recommend the use of more than one measure of labour underutilization for monitoring labour market performance. The unemployment rate (termed as LU1 in the international standards) is the most restrictive measure of labour underutilization. The most expansive among those proposed by the international standards is the composite measure of labour underutilization (LU4), defined as the sum of time-related underemployment, unemployment, and potential labour force expressed as a percentage of the extended labour force (labour force + potential labour force).

The calculation of the composite measure of labour underutilization and rate (LU4) on the basis of the results of LFS 2019 is presented in Table 6.3 and Table 6.4 for the working-age population by sex and region. The results show that about 350 persons experienced labour underutilization, which affected men (53.1 percent) and women (46.9 percent) equally.

Figure 6.4 reflects the numbers of labour underutilization in unemployment, time-related underemployment, and potential labour force by sex. It indicates that the main issue of labour underutilization in the Cook Islands in 2019 was a relatively large number of potential labour force instead of unemployment. It is therefore vital to support the potential labour force, who expresses an interest in work, but the existing conditions limit their active job search and/or their availability, to find jobs. Females are more likely to be in the potential labour force and males are more likely to be in time-related underemployment but wanting to work more hours. The composite measure of labour underutilization (LU4) is more than three times the unemployment rate (LU1) for the total working-age population. By region, the difference is particularly significant in the Outer Islands with 7.7 percent combined rate of labour underutilization LU4, against 3.2 percent LU4 in Rarotonga.

Table 6.3. Labour underutilization by sex, Cook Islands, 2019

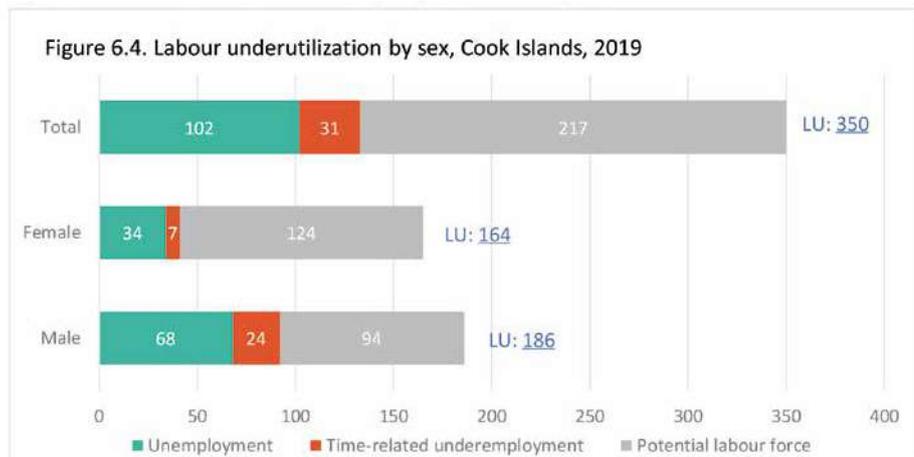
	Male	Female	Total
Labour underutilization	186	164	350
Unemployment	68	34	102
Time-related underemployment	24	7	31
Potential labour force	94	124	217
LU1: Unemployment rate (%)	1.6	0.9	1.3
LU2: Combined rate of time-related underemployment and unemployment (%)	2.1	1.1	1.7
LU3: Combined rate of unemployment and potential labour force (%)	3.7	4.1	3.9
LU4: Composite measure of labour underutilization (%)	4.2	4.3	4.2

Table 6.4. Labour underutilization by regions, Cook Islands, 2019

	Rarotonga	Outer Islands
Labour underutilization	202	148
Unemployment	58	44
Time-related underemployment	31	0
Potential labour force	113	104
LU1: Unemployment rate (%)	0.9	2.4
LU2: Combined rate of time-related underemployment and unemployment (%)	1.4	2.4
LU3: Combined rate of unemployment and potential labour force (%)	2.7	7.7
LU4: Composite measure of labour underutilization (%)	3.2	7.7



Figure 6.4. Labour underutilization by sex, Cook Islands, 2019



6.3 YOUTH NOT IN EMPLOYMENT, EDUCATION OR TRAINING (NEET)

As shown in Tables 6.5 and 6.6, around 300 youth aged 15-24 were “not in employment, education or training (NEET)”, which comprised 12.6 percent of the total youth population. There was a significant number of female NEET youth (195 persons) with a NEET rate of 16.9 percent, against the male youth NEET rate of 8.6 percent. By region, Youth NEET was much higher in the Outer Islands of 23.6 percent, than in Rarotonga at 9.0 percent.

Table 6.5. Youth not in employment, education or training (NEET) by sex, Cook Islands, 2019

	Male	Female	Total
Youth not in employment, education or training, aged 15-24	105	195	300
Youth not in employment, education or training, aged 15-24 (%)	8.6	16.9	12.6

Table 6.6. Youth not in employment, education or training (NEET) by regions, Cook Islands, 2019

	Rarotonga	Outer Islands
Youth not in employment, education or training, aged 15-24	161	139
Youth not in employment, education or training, aged 15-24 (%)	9.0	23.5

6.4 UNEMPLOYMENT BY DISABILITY STATUS

As shown in Table 6.7, there was about 121 persons with disability in employment, zero were unemployed, which indicates that for all persons in the labour force, they were all employed.

Table 6.7. Unemployment by disability status, Cook Islands, 2019

Disability status	Labour force Status		
	Employed	Unemployed	Outside labour force
Persons without disability	7,833	102	3,083
Persons with disability	121	0	305

7. INFORMAL SECTOR AND INFORMAL EMPLOYMENT

7. INFORMAL SECTOR AND INFORMAL EMPLOYMENT

Chapter 7 presents the data on the informal sector and informal employment by educational attainment, broad economic sector, status in employment and occupations.

Employment in the informal sector includes all jobs in the informal sector enterprises or all persons who, during a given reference period, were employed in at least one informal sector enterprise, irrespective of their status in employment and whether it was their main or a secondary job. In practice the report uses the informal sector enterprise for the main job.

Informal employment is a job-based concept, where an employee does not receive any annual leave or sick leave benefits or any pension contribution or for which labour regulations are not applied nor enforced. Informal employment may be found in the formal sector, informal sector or households. Informal employment is a broader concept including (a) employment in the informal sector (except those rare employees in that sector who may have formal employment), and (b) informal employment outside the informal sector. The informal employment rate is an important indicator to illustrate the quality of employment in an economy.

7.1 EMPLOYMENT IN THE INFORMAL SECTOR

In 2019, there were 1,265 workers employed in the informal sector in the Cook Islands, representing 15.9 percent of a total of 7,954 persons in employment. The corresponding shares of employment in the informal sector by sex, age group, educational attainment, economic sector and occupation are shown in Table 7.1 and Figure 7.1.

By sex, out of 4,270 men in employment, 716 were employed in the informal sector (16.8 percent); out of 3,685 women in employment, 549 were employed in the informal sector (14.9 percent). Accordingly, the share of workers in the informal sector was higher among men (men account for 56.6 percent) than among women (women constituted the remaining 43.4 percent). By location, the Outer Islands had a slightly higher share of employment in the informal sector (18.1 percent) than in Rarotonga (15.3 percent). The age pattern is U-shaped with relatively higher rates among young employed people aged 15-24 years (25.5 percent) and the old age 65+ years group (33.6 percent), than among the middle age group 25-64 (12.2 percent).

By educational attainment, the workers with the highest shares of employment in the informal sector were those with secondary education level (19.9 percent). In particular, men with a secondary education level had the highest rate of employment in the informal sector (20.5 percent). Workers with tertiary education had the lowest shares of employment in the informal sector (3.4 percent).

By economic sector, the agriculture, forestry and fishery sector had the highest share of employment in the informal sector (53.2 percent), compared with industry (25.9 percent) and services (13.5 percent). By occupation, the two largest occupation groups in the informal sector are skilled agricultural, forestry and fishery workers (42.3 percent), craft and related trades workers (31.3 percent); with mostly men working in skilled agricultural, forestry and fishery workers (43.3 percent) and women in craft and related trades workers (58.6 percent).

Table 7.1. Profile of employment in the informal sector, Cook Islands, 2019

	Persons			Share of total employment (%)		
	Male	Female	Total	Male	Female	Total
Employment in the informal sector, aged 15+	716	549	1,265	16.8	14.9	15.9
<i>By age group</i>						
15-24	228	118	346	28.4	21.4	25.5
25-64	392	344	736	12.4	11.9	12.2
65+	96	87	183	32.1	35.4	33.6
<i>By educational attainment</i>						
Primary or less	40	14	54	13.6	13.1	13.4
Secondary	648	505	1,152	20.5	19.2	19.9
Tertiary	29	30	59	3.6	3.2	3.4
Not classified						
<i>By economic sector</i>						
Agriculture, forestry and fishery	109	0	109	55.1	0.0	53.2
Industry	220	17	237	29.2	10.6	25.9
Services	387	533	919	11.7	15.2	13.4
<i>By occupation</i>						
Managers	25	17	43	9.3	4.3	6.4
Professionals	29	21	50	6.9	4.4	5.6
Technicians and associate professionals	18	50	69	2.9	11.4	6.5
Clerical support workers	11	40	51	8.2	7.1	7.3
Service and sales workers	121	299	420	16.4	22.3	20.2
Skilled agricultural, forestry & fishery workers	127	0	127	43.3	0.0	42.3
Craft and related trades workers	193	82	274	26.2	58.6	31.3
Plant and machine operators and assemblers	30	12	42	9.8	18.8	11.4
Elementary occupations	161	28	189	21.4	10.9	18.8
<i>By main location</i>						
Rarotonga	565	377	942	17.1	13.2	15.3
Outer Islands	151	172	323	15.8	20.9	18.1



Figure 7.1. Employment in the informal sector by sex, age group, educational attainment, economic sector and occupation, Cook Islands, 2019





7.2 INFORMAL EMPLOYMENT

Informal employment is a broader concept including (a) employment in the informal sector (except those rare employees in that sector who may have formal employment), and (b) informal employment outside the informal sector. Informal employment comprises all persons aged 15 years and above, who are employed as a contributing family worker; employer or own-account worker of an informal sector unit; employee with an employment relationship, in law or in practice, not subject to national labour legislation, or no social security, or no entitlement to certain employment benefits (paid sick leave or paid annual leave). The corresponding shares of informal employment by sex, age group, educational attainment, economic sector, and occupation are shown in Table 7.2 and Figure 7.2.

In 2019, 1,962 workers were informally employed in the Cook Islands, representing 24.7 percent of a total of 7,954 persons in employment. The size of informal employment was slightly lower than the Pacific Islands' average of 28.8 percent in 2016⁸. By sex, out of 4,270 men in employment, 1,028 were in informal employment (24.1 percent); out of 3,685 women in employment, 934 were in informal employment (25.4 percent). Overall, informal employment among females was slightly higher than among their male counterparts in the Cook Islands. Compared to the Pacific Islands' average informal employment rate by sex, which was 29.2 percent for the male informal employment and 28.4 percent for the female informal employment, both were higher than those of the Cook Islands.

Table 7.2 indicates that the informal employment in Rarotonga was 1,369 (22.2 percent), while in the Outer Islands, it was 594 (33.4 percent). In the Outer Islands, 309 females (37.5 percent) were in informal employment whereas it was 625 (21.9 percent) in the urban area.

Informal employment varies widely by broad age group. Informal employment rate was significantly higher among the old age 65+ years group (52.0 percent) and the young employed people aged 15-24 (32.3 percent) than among the middle age group 25-64 (20.5 percent).

By educational attainment, the workers with the highest shares of informal employment were those with primary or less education level (30.3 percent). In particular, women with a primary or less education level had the highest share of informal employment (44.9 percent). Workers with tertiary education had the lowest shares of employment in the informal sector (7.7 percent). There exists a clear positive correlation between higher education attainment and formal employment, i.e., highly educated persons are more likely to engage in formal employment, less educated are more likely to be employed in the informal employment.

Informal employment varies widely by economic sector. Informal employment incidence was highest in the agriculture, forestry and fishery sectors (60.0 percent), compared with the industry (29.2 percent) and the services sector (23.0 percent). By occupation, the two largest occupation groups in the informal employment were skilled agricultural, forestry and fishery workers (47.0 percent), and craft and related trades workers (37.6 percent). 1 out of 2 men working in skilled agricultural, forestry and fishery workers (48.1 percent) was informally employed, while 3 out of 4 women in craft and related trades workers (77.9 percent) were engaged in informal employment.

Figure 7.2 also shows that persons with primary or less education level (30.3 percent) had the highest incidence of involvement in the informal employment, while persons with tertiary education level only had 7.7 percent. By age group, 50.2 percent of the population aged 65+ engaged in the informal employment, 32.3 percent of youth aged 15-24 and 20.5 percent of adults aged 25-64 were in the informal employment.



Table 7.2. Profile of informal employment, Cook Islands, 2019

	Persons			Share of total employment (%)		
	Male	Female	Total	Male	Female	Total
Informal employment, aged 15+	1,028	934	1,962	24.1	25.3	24.7
<i>By age group</i>						
15-24	257	181	438	32.0	32.8	32.3
25-64	624	617	1,241	19.7	21.4	20.5
65+	147	136	283	49.2	55.3	52.0
<i>By educational attainment</i>						
Primary or less	73	48	122	24.7	44.9	30.3
Secondary	912	793	1,704	28.8	30.2	29.4
Tertiary	43	93	136	5.3	9.8	7.7
Not classified						
<i>By economic sector</i>						
Agriculture, forestry and fishery	123	0	123	62.1	0.0	60.0
Industry	238	29	267	31.6	18.0	29.2
Services	667	905	1,572	20.1	25.7	23.0
<i>By occupation</i>						
Managers	44	41	86	16.4	10.3	12.9
Professionals	77	33	110	18.2	6.9	12.2
Technicians and associate professionals	39	70	109	6.3	15.9	10.3
Clerical support workers	28	82	110	20.9	14.6	15.8
Service and sales workers	227	503	730	30.8	37.6	35.1
Skilled agricultural, forestry & fishery workers	141	0	141	48.1	0.0	47.0
Craft and related trades workers	219	109	329	29.8	77.9	37.6
Plant and machine operators and assemblers	42	12	54	13.7	18.8	14.6
Elementary occupations	210	84	294	27.9	32.8	29.2
<i>By main location</i>						
Rarotonga	743	625	1,369	22.4	21.8	22.2
Outer Islands	285	309	594	29.7	37.5	33.4



Figure 7.2. Informal employment by sex, age group, educational attainment, economic sector and occupation, Cook Islands, 2019

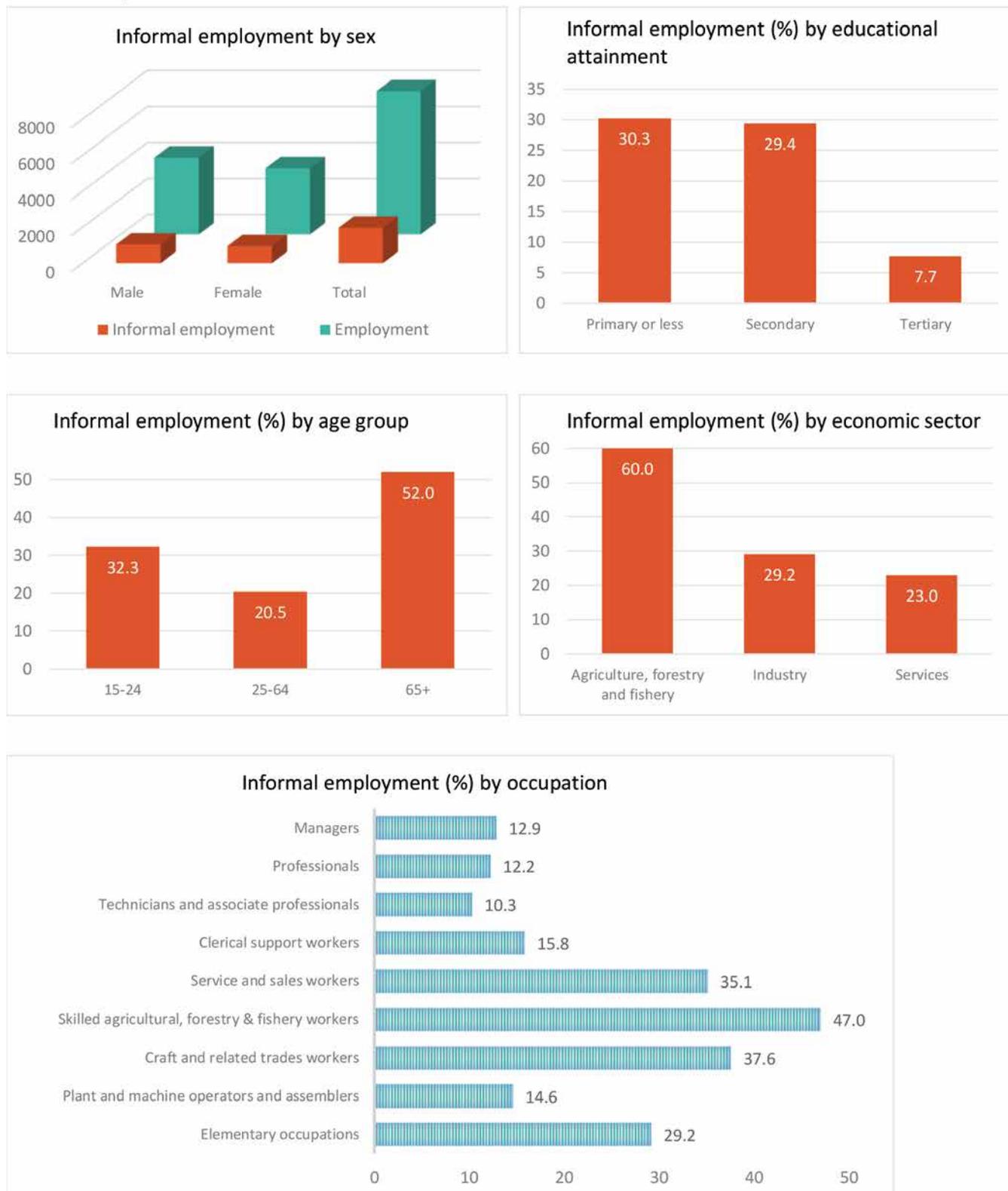




Table 7.3 presents the joint distribution of informal sector and informal employment based on the estimate results from LFS 2019. It can be observed that almost all persons in the informal sector had informal jobs, where only 5 employed persons in the informal sector had formal jobs. By contrast, 10.5 percent of workers employed outside the informal sector (formal sector or household) had informal jobs. These were essentially persons with paid employment jobs engaged in formal sector enterprises on an informal basis, such as, apprentice or temporary part-time employee, or as home-based producer working outside the enterprise.

Table 7.3. Joint distribution of informal sector and informal employment, Cook Islands, 2019

		Nature of job	
		Informal jobs	Formal jobs
Unit of production	Informal sector enterprises	1,260 (A)	5 (B)
	Other units of production (formal, household)	702 (C)	5,987 (D)

Employment in the informal sector:	A + B = 1,265
Informal employment:	A + C = 1,962
Informal employment outside the informal sector:	C = 702

8. HOURS OF WORK



Chapter 8 presents the findings on the working hours of employed persons. They include actual hours of work per week, the distribution of hours of work per week by sex, and excessive hours of work per week. The Cook Islands Labour Force Survey collected detailed information on hours of work among employed persons aged 15 years and above. Respondents were asked about the number of hours actually worked in the last week prior to the survey interview. 7,070 out of 7,954 employed persons reported actual hours worked, and 884 out of 7,954 employed persons reported usual hours worked. Only those who answered actual hour worked on the secondary job in the survey reported usual hours worked.

The international standard definition of employment is expansive covering even one hour during a week. Data on hours of work are also necessary to calculate time-related underemployment as well as average wages per hour so that the resulting wage data are comparable across different categories of workers.

8.1 USUAL HOURS AND ACTUAL HOURS

Hours actually worked are the time spent in a job for the performance of activities that contribute to the production of goods and services one week before the interview. Hours usually worked are the hours actually worked in a job during a typical week. In principle, it can be calculated as the most frequent number of hours that a person actually worked per week during the last month.

Table 8.1 presents the average hours actually worked of the employed population at main job and at all jobs, as well as the average hours usually worked of the employed population at all jobs⁹. Figure 8.1 illustrates that for all economic activities, employed persons worked on average 38.5 actual hours during the reference week, with men worked on average 39.7 hours and women 37.1 hours. At their main job, men (38.1 hours) on average work longer actual hours per week than women (35.7 hours). Their usual hours of work were significantly higher at 47.6 hours per week at all jobs, where men and women reported similar usual hours worked at all jobs. By location, the average hours actually worked at all jobs in the reference week was higher in Rarotonga (39.5 hours) than in the Outer Islands (35.1 hours).

Corresponding data by demographic characteristics, age group, and occupation are presented in the statistical annex Table A.4.22 and A.4.23. Young people aged 15-24 years worked on average 39.5 hours, which were slightly higher than all other adult age groups at all jobs. The highest average hours actually worked was in manager occupations (42 hours), followed by the occupation of plant and machine operators, and assemblers (41 hours), and technicians and associate professionals (40 hours).¹⁰

Table 8.1. Average usual and actual hours of work per week by sex and region, Cook Islands, 2019

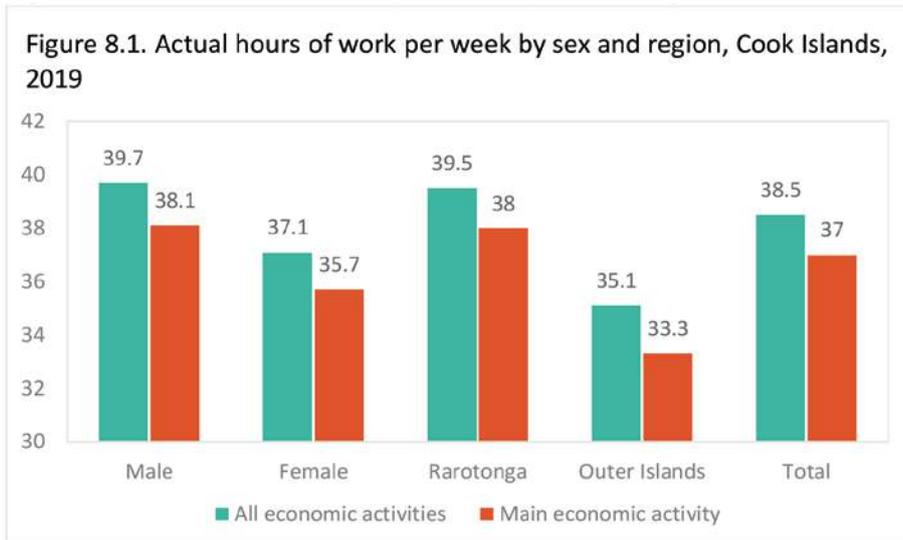
	Male	Female	Rarotonga	Outer Islands	Total
Usual hours					
All economic activities ¹⁰	47.6	47.5	49.4	41.9	47.6
Actual hours					
All economic activities	39.7	37.1	39.5	35.1	38.5
Main economic activity	38.1	35.7	38	33.3	37
Secondary economic activity	12.3	13.6	12.7	13.2	12.8

⁹ Survey respondents only reported usual hours worked if they reported actual hour worked on the secondary job, thus there was no separate data reported on usual hours worked at the main job and at the secondary job.

¹⁰ There was a potentially high error rate in average usual hours worked in all economic activities, given that a small number of respondents reported secondary jobs.



Figure 8.1. Actual hours of work per week by sex and region, Cook Islands, 2019



8.2 DISTRIBUTION OF HOURS OF WORK

The distribution of employed persons according to hours actually worked and usually worked per week at all jobs provides information on persons engaging in time-related underemployment and persons working long hours. Long or excessive hours of work as termed in the framework of decent work indicators is considered as a threat to physical and mental health, interfering with the balance between work and family life, reducing productivity and often signalling an inadequate hourly pay. Section 8.4 offers a detailed analysis of excessive work (more than 48 hours in the reference week) in the Cook Islands in 2019.

Out of 7,070 employed persons who reported actual work hours per week, 70.6 percent actually worked between 35 and 48 hours per week. Another 1,186 persons or 16.8 percent in employment actually worked less than 35 hours. 893 persons actually worked more than 48 hours (12.6 percent).

Table 8.2. Distribution of hours of work per week by sex and region, Cook Islands, 2019

	Male	Female	Rarotonga	Outer Islands	Total
Usual hours in all economic activities					
Less than 35 hours	48	35	55	28	83
35-48 hours	240	160	269	131	400
More than 48 hours	244	158	346	56	401
Actual hours in all economic activities					
Less than 35 hours	529	657	858	328	1,186
35-48 hours	2,742	2,249	3,919	1,072	4,991
More than 48 hours	608	285	806	87	893



Figure 8.2. Proportion of employed persons by actual hours group (%), Cook Islands, 2019



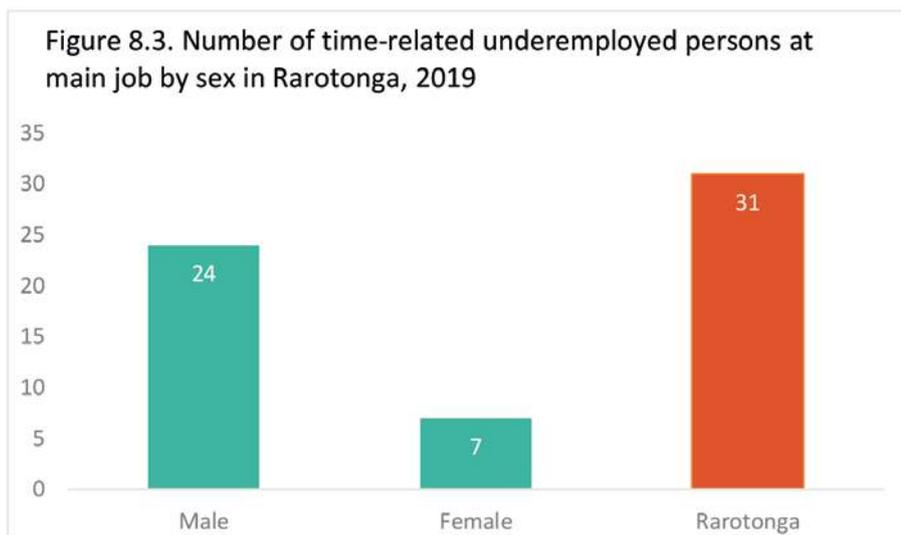
8.3 TIME-RELATED UNDEREMPLOYMENT

Short hours of work are a sign of labour underutilization. However, to the extent that short hours of work are voluntary or for non-economic reasons, it is not regarded as labour underutilization or time-related underemployment.

In the Cook Islands Labour Force Survey, time-related underemployment refers to persons in employment who, during the reference period of the survey: (a) who worked less than 35 actual hours at the main job, (b) who were willing to work additional hours than what they actually worked, and (c) who were available to work additional hours given an opportunity for more paid or profit work.

Of all employed persons who worked less than 35 hours in the reference week in the Cook Islands in 2019, there were very few employed persons in time-related underemployment, less than 0.39 percent (or 31 persons) of total employed persons. The incidence was higher among men (0.56 percent or 24 persons) than women (0.19 percent or 7 persons). All time-related underemployed persons were found in Rarotonga (Figure 8.3).

Figure 8.3. Number of time-related underemployed persons at main job by sex in Rarotonga, 2019





8.4 EXCESSIVE HOURS OF WORK

Excessive work defines as the number of hours worked exceeding eight hours per day or 48 hours per week. The indicator of employment in excessive working time provides information on the share of employed persons whose hours of work are more than 48 hours per week.

Figure 8.2 shows that overall 15.7 percent of the employed male population worked excessively long hours (more than 48 hours during the reference week) at all jobs in 2019, compared to 8.9 percent of the employed female population. The incidence of long hours of work was higher in Rarotonga (14.4 percent) than in the Outer Islands (5.9 percent).

As shown in Figure 8.4 and Appendix Table A.4.25, more workers with a work week longer than 48 hours were found in service and sales workers occupation (with a share of 21.8 percent), followed by managers (17.8 percent) and technicians and associate professionals (17.2 percent). The majority of workers with excessive hours in Rarotonga were service and sales workers, at a share of 20.3 percent, followed by managers (19.0 percent), and technicians and associate professionals (18.0 percent). In the Southern Group, more workers with a work week longer than 48 hours were in service and sales workers (36.1 percent) followed by skilled agricultural, forestry and fishery workers (32.8 percent). In the Northern Group, service and sales workers (34.6 percent), and craft and related trades workers (26.9 percent) had the highest incidence of excessive hours of work in the reference week.

Figure 8.4. Number of employed persons with excessive hours of work (48+ hours in reference week) at main job by occupation, sex and region, Cook Islands, 2019

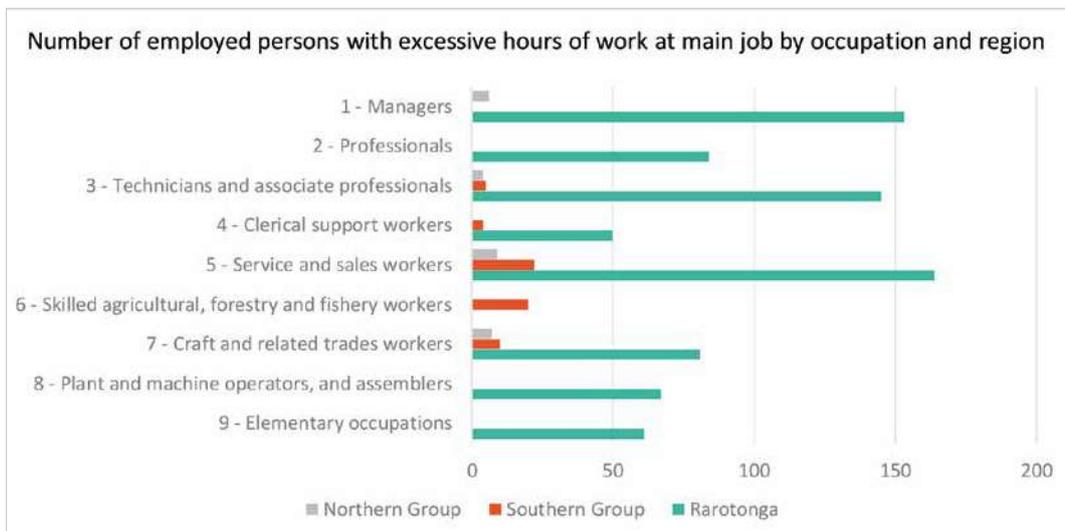
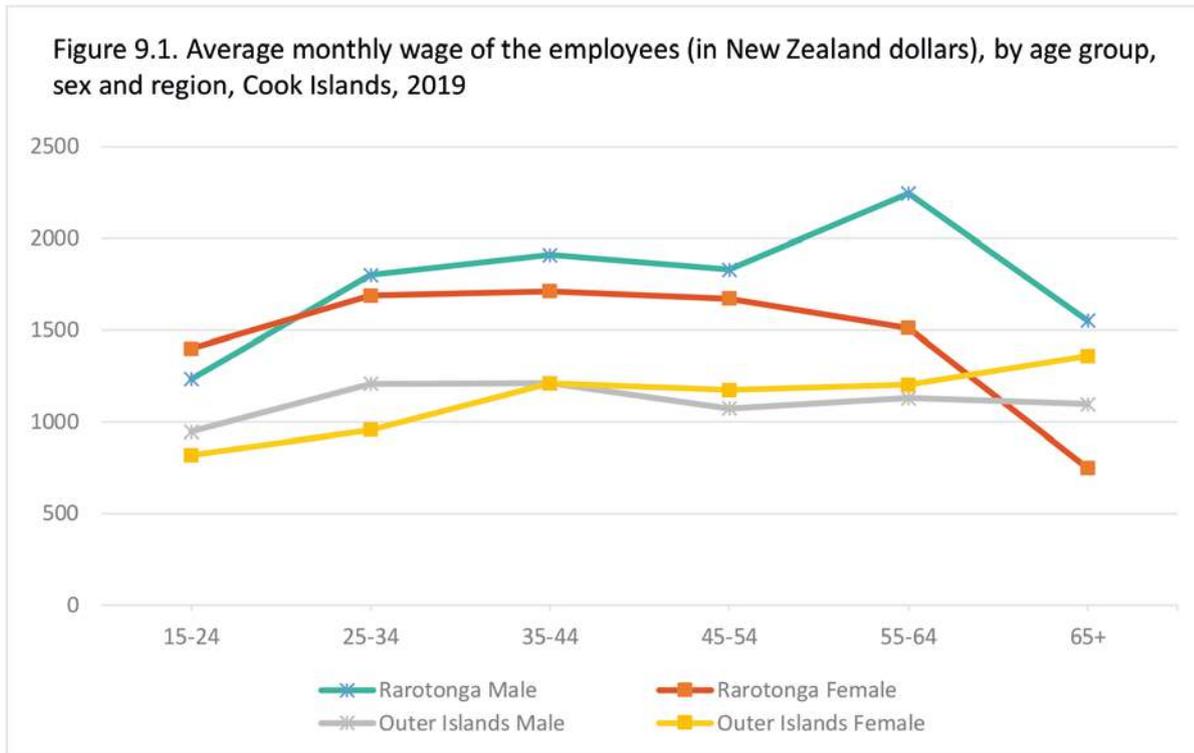




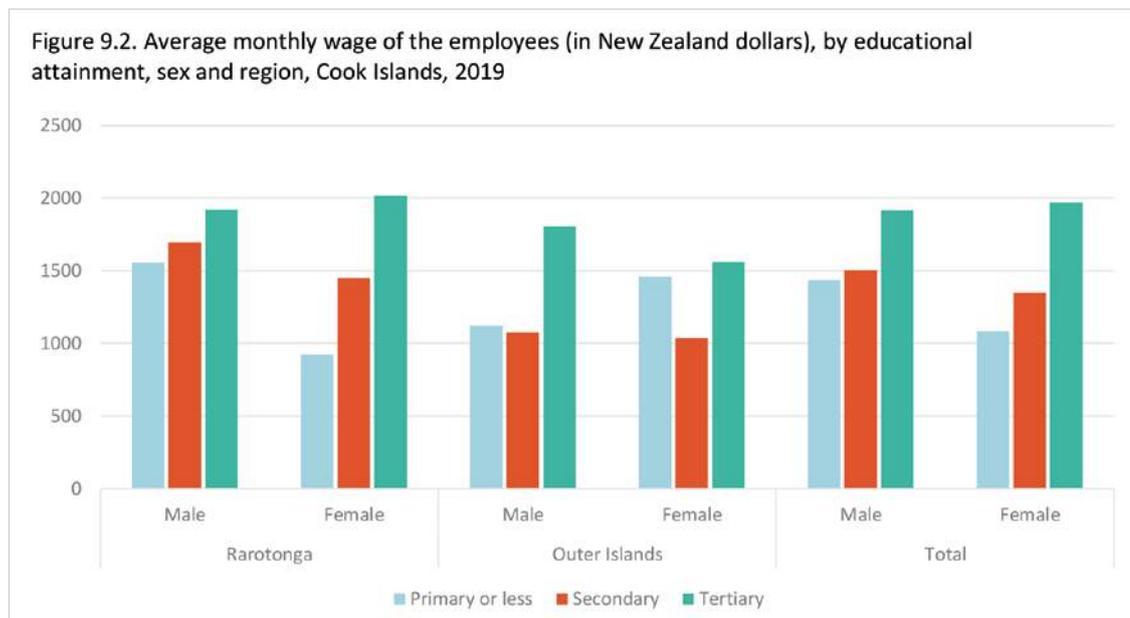
Figure 9.1. Average monthly wage of the employees (in New Zealand dollars), by age group, sex and region, Cook Islands, 2019



By educational attainment, Figure 9.2 reflects that overall higher levels of educational attainment are positively associated with higher wages. Employees with tertiary education level had the highest wage among all sex and location groups, where female employees in Rarotonga with tertiary education level earned the highest (NZ\$2,018). In Rarotonga, employees with primary or less education level earned the least. In particular, on average, in Rarotonga female employees with secondary education level earned 57.2 percent more than those with primary or less education level, while female employees with tertiary education level earned 37.1 percent more than secondary education level. In the Outer Islands, employees with secondary education level had slightly lower average wages than those with primary or less education level, where female employees with secondary education level had the lowest wage (NZ\$1,035).



Figure 9.2. Average monthly wage of the employees (in New Zealand dollars), by educational attainment, sex and region, Cook Islands, 2019



By economic sector, the average monthly wage was highest in the industry sector (NZ\$1,834) in the main job of employees, followed by agriculture, forestry and fishery sector (NZ\$1,701) and by the services sector (NZ\$1,495). Men had higher wages than women in all three economic sectors.

By occupation, managers had the highest monthly wage (NZ\$2,457). Figure 9.3 illustrates that on average, female employees had higher wages than male employees in occupations of manager, professionals, and skilled agricultural, forestry and fishery workers. In all other occupations, men had higher wages than women.

In some occupations, the difference in wages between male and female employees was wide. Figure 9.4 depicts the wage gap between men and women in main job of employees by occupation. The gender wage gap refers to the difference in wages between men and women. For example, in occupation of professionals, male employees earned 9.2% less wage than female employees. The largest wage gap between men and women was in the occupation of Plant and machine operators and assemblers, where on average men earned 55.6% more than women.



Figure 9.3. Average monthly wage in main job of employees (in New Zealand dollars), by sex and occupation, Cook Islands, 2019

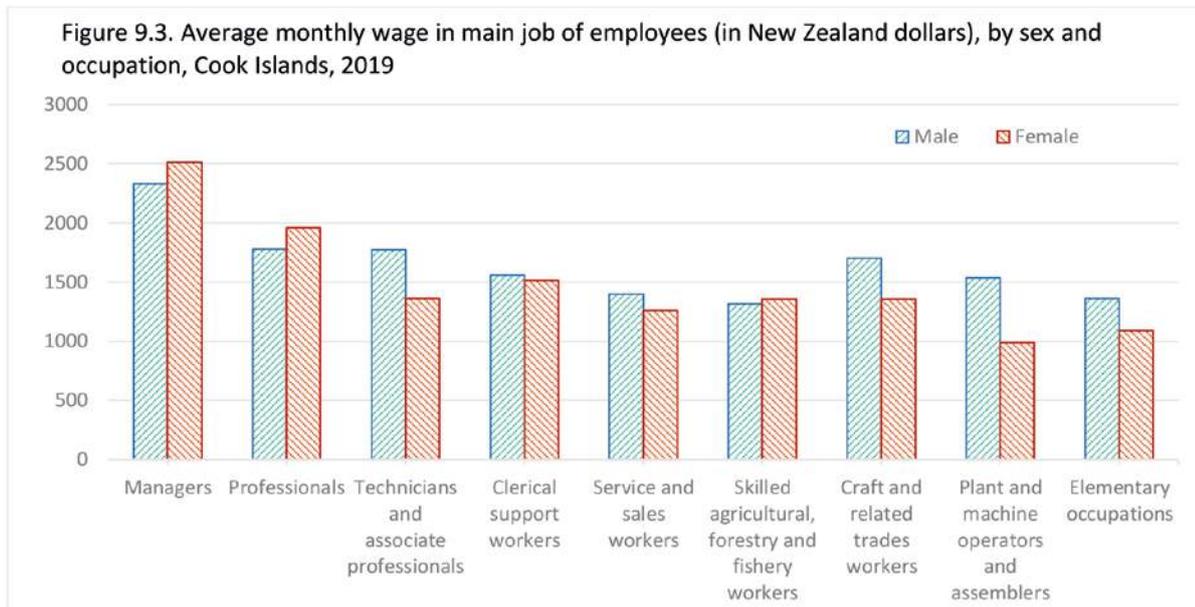
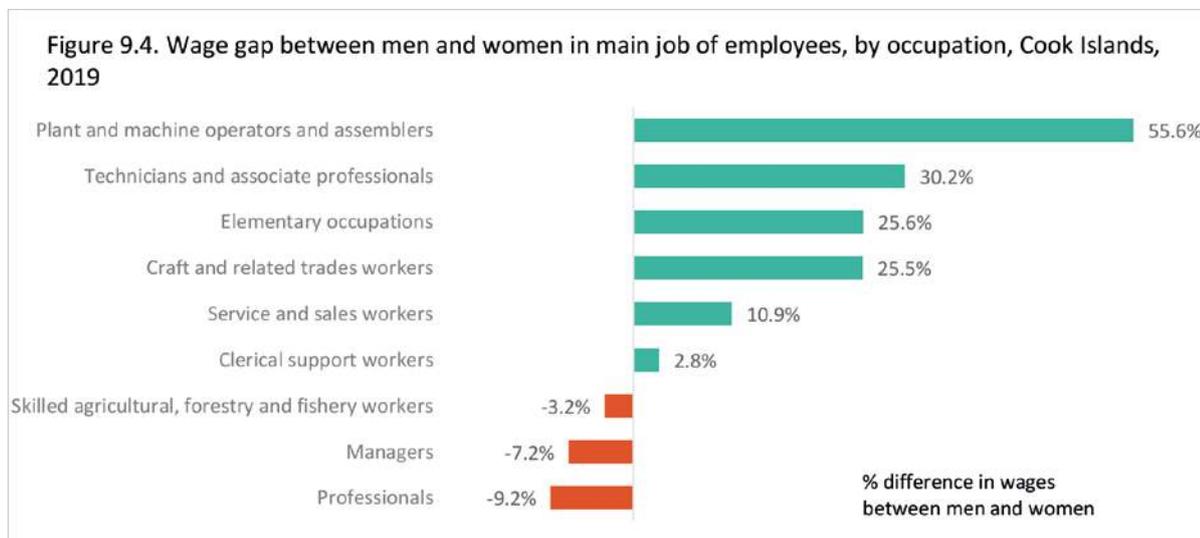


Figure 9.4. Wage gap between men and women in main job of employees, by occupation, Cook Islands, 2019



By location, in Rarotonga, the average monthly wage was highest in the industry sector (NZ\$1,975) in the main job of employees, followed by agriculture, forestry and fishery sector (NZ\$1,773) and services sector (NZ\$1,630). Employees in Rarotonga had much higher wages than employees in the Outer Islands in all three economic sectors (Figure 9.5).

In general, the average monthly wage of employees in Rarotonga (NZ\$1,667) was higher than in the Outer Islands (NZ\$1,105). In both Rarotonga and Outer Islands, managers earned the highest average monthly wages, at NZ\$2,611 and NZ\$1,658, respectively. The wage difference between employees in Rarotonga and in the Outer Islands was wide, particularly for the occupation of plant and machine operators and assemblers. Figure 9.6 depicts the wage gap between employees by region and occupation. In 2019, workers in the occupation of managers in Rarotonga out-earned their counterpart employees in the Outer Islands by 57.4%. The largest wage gap between employees in Rarotonga and in the Outer Islands was in the occupation of plant and machine operators and assemblers, where on average employees in Rarotonga earn 84.7% more than employees in the Outer Islands.



Figure 9.5. Average monthly wage in main job of employees (in New Zealand dollars), by region and occupation, Cook Islands, 2019

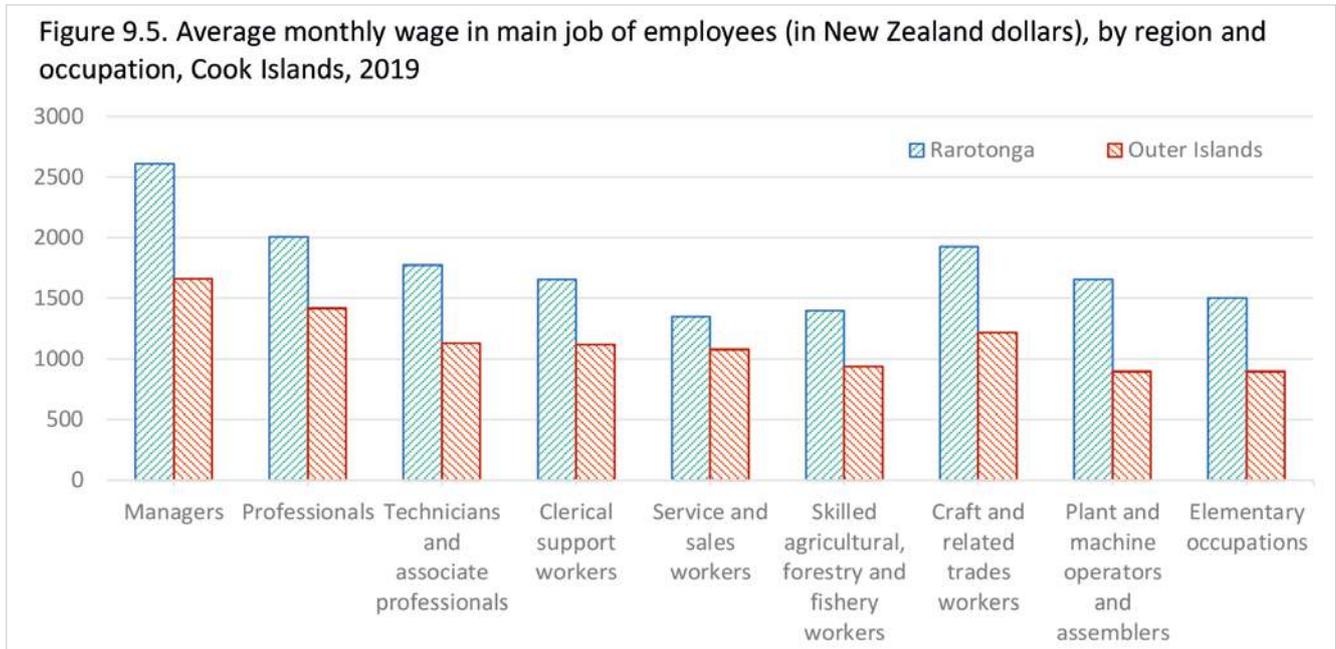
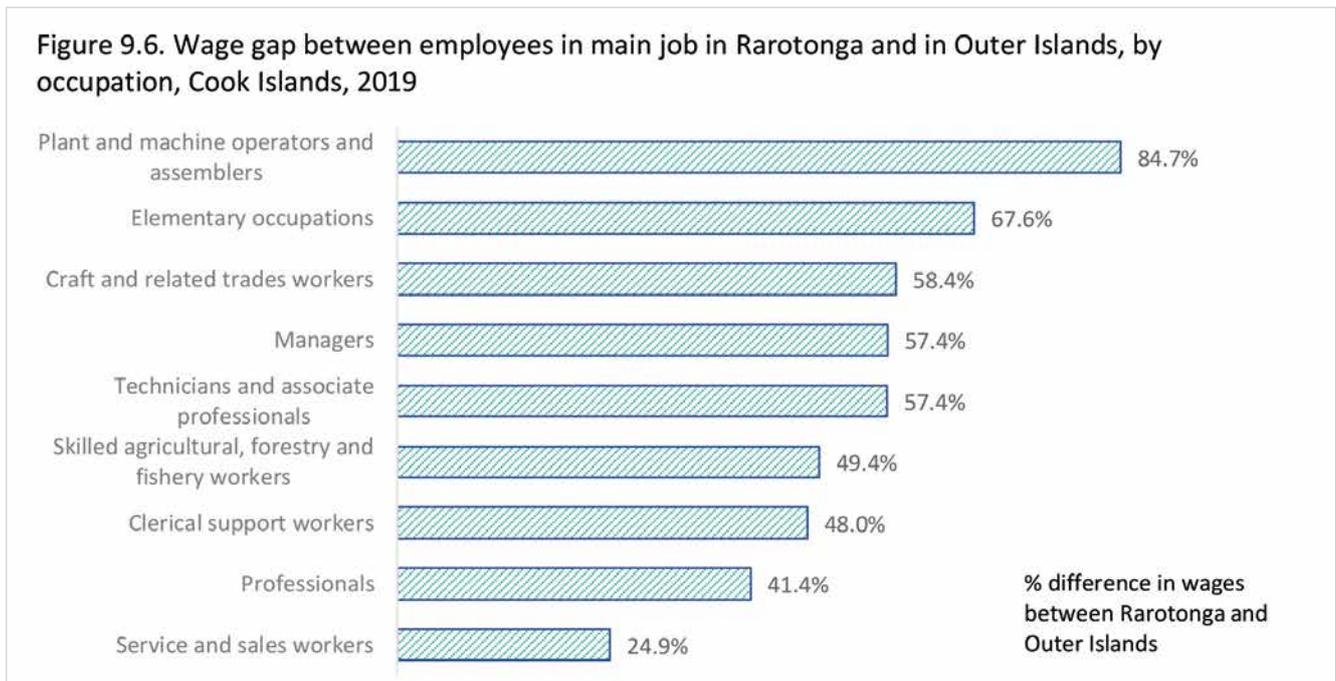


Figure 9.6. Wage gap between employees in main job in Rarotonga and in the Outer Islands, by occupation, Cook Islands, 2019





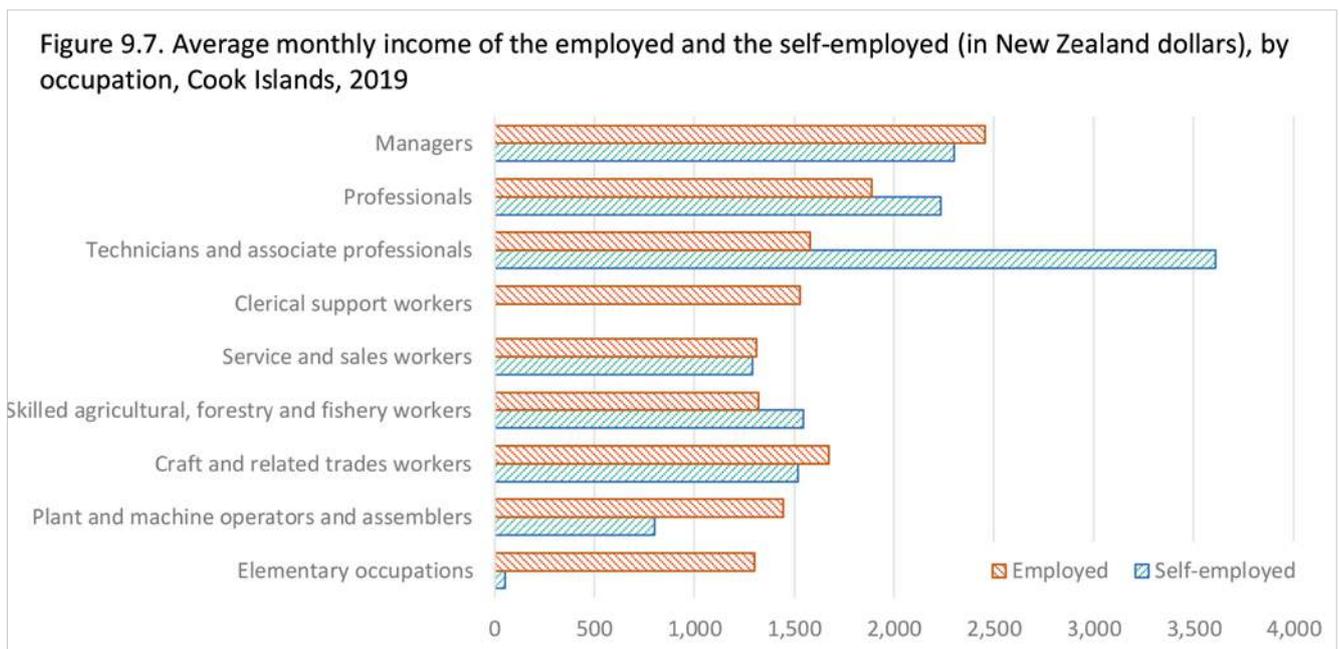
9.2 AVERAGE MONTHLY INCOME IN THE MAIN JOB OF SELF-EMPLOYED

Table 9.1 reflects that average monthly income for the self-employed (NZ\$1,713) was considerably larger than the employed (NZ\$1,531)¹².

On average, self-employed males earned NZ\$1,934, which was 37.1 percent more than what female self-employed earned (NZ\$1,411). By economic sector, the average monthly income was highest in the services sector (NZ\$2,663) in the main job of self-employed, followed by agriculture, forestry and fishery (NZ\$1,620) and industry (NZ\$1,505). By occupation, persons that were self-employed technicians and associate professionals had on average the highest income (NZ\$3,690). In particular, all self-employed technicians and associate professionals were male workers. Self-employed women had higher average monthly incomes than men in the occupations of professionals, service and sales workers, plant and machine operators and assemblers (Figure 9.8).

Table 9.2 and Figure 9.9 illustrate that, on average, self-employed persons had slightly higher income in Rarotonga (NZ\$1,731) than in the Outer Islands (NZ\$1,674). In Rarotonga, self-employed technicians and associate professionals had the highest average monthly income at NZ\$4,800, followed by craft and related trades workers at NZ\$3,254. In the Outer Islands, self-employed professionals earned the highest average monthly income at NZ\$9,200, followed by managers at NZ\$6,162. In some occupations, the difference of income between self-employed in Rarotonga and the Outer Islands was wide, particularly for the occupations of professionals and managers.

Figure 9.7. Average monthly income of the employed and the self-employed (in New Zealand dollars), by occupation, Cook Islands, 2019



¹² Survey data are subject to available data reports from respondents.



Figure 9.8. Average monthly income in main job of self-employed (in New Zealand dollars), by sex and occupation, Cook Islands, 2019

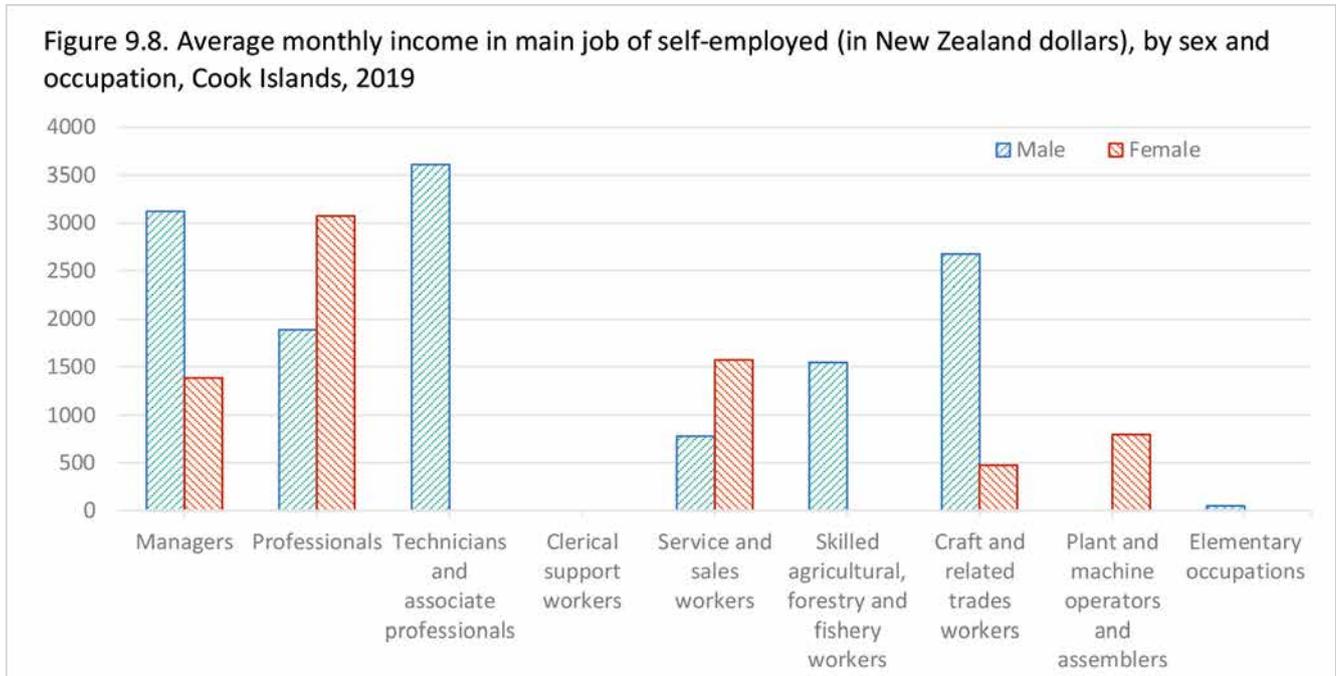


Figure 9.9. Average monthly income in main job of self-employed (in New Zealand dollars), by region and occupation, Cook Islands, 2019

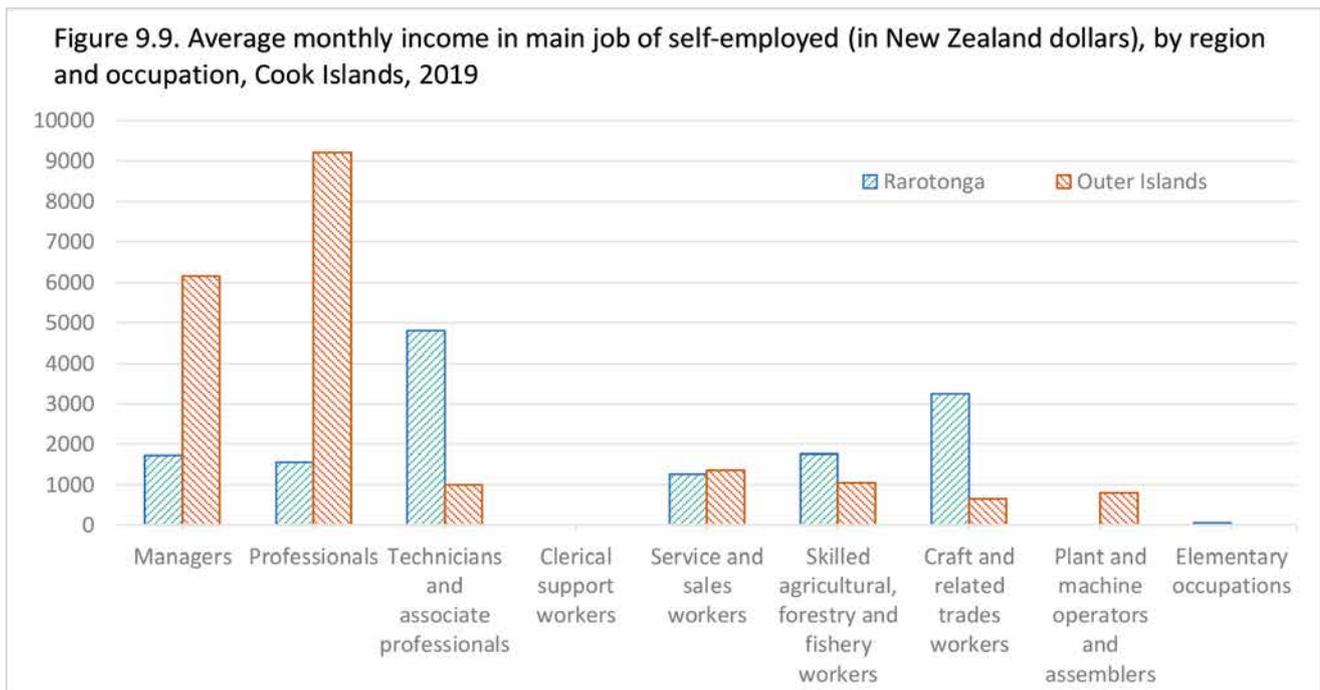




Table 9.1. Average monthly wages and earnings (in New Zealand dollars), main job, by sex

	Male	Female	Total
Average monthly wages in main job of employees	\$1,565	\$1,490	\$1,531
<i>By economic sector</i>			
Agriculture, forestry and fishery	\$1,773	\$1,360	\$1,701
Industry	\$1,851	\$1,745	\$1,834
Services	\$1,508	\$1,481	\$1,495
<i>By occupation</i>			
Managers	\$2,329	\$2,510	\$2,457
Professionals	\$1,777	\$1,958	\$1,888
Technicians and associate professionals	\$1,775	\$1,363	\$1,581
Clerical support workers	\$1,559	\$1,516	\$1,526
Service and sales workers	\$1,398	\$1,261	\$1,312
Skilled agricultural, forestry and fishery workers	\$1,317	\$1,360	\$1,319
Craft and related trades workers	\$1,702	\$1,357	\$1,675
Plant and machine operators and assemblers	\$1,533	\$986	\$1,445
Elementary occupations	\$1,365	\$1,087	\$1,299
Average monthly income in main job of self-employed	\$1,934	\$1,411	\$1,713
<i>By economic sector</i>			
Agriculture, forestry and fishery	\$1,620	\$0	\$1,620
Industry	\$3,091	\$1,542	\$2,663
Services	\$1,627	\$1,395	\$1,505
<i>By occupation</i>			
Managers	\$3,125	\$1,381	\$2,300
Professionals	\$1,889	\$3,074	\$2,236
Technicians and associate professionals	\$3,609	\$0	\$3,609
Clerical support workers	\$0	\$0	\$0
Service and sales workers	\$778	\$1,575	\$1,291
Skilled agricultural, forestry and fishery workers	\$1,546	\$0	\$1,546
Craft and related trades workers	\$2,677	\$473	\$1,517
Plant and machine operators and assemblers	\$0	\$800	\$800
Elementary occupations	\$50	\$0	\$50



Table 9.2. Average monthly wages and earnings (in New Zealand dollars), main job, by region

	Rarotonga	Outer Islands
Average monthly wages in main job of employees	\$1,667	\$1,105
<i>By economic sector</i>		
Agriculture, forestry and fishery	\$1,773	\$1,360
Industry	\$1,975	\$1,375
Services	\$1,630	\$1,074
<i>By occupation</i>		
Managers	\$2,611	\$1,658
Professionals	\$2,007	\$1,419
Technicians and associate professionals	\$1,774	\$1,127
Clerical support workers	\$1,656	\$1,119
Service and sales workers	\$1,347	\$1,078
Skilled agricultural, forestry and fishery workers	\$1,401	\$938
Craft and related trades workers	\$1,927	\$1,216
Plant and machine operators and assemblers	\$1,656	\$896
Elementary occupations	\$1,504	\$898
Average monthly income in main job of self-employed	\$1,731	\$1,674
<i>By economic sector</i>		
Agriculture, forestry and fishery	\$1,762	\$1,212
Industry	\$2,917	\$1,297
Services	\$1,357	\$1,768
<i>By occupation</i>		
Managers	\$1,718	\$6,162
Professionals	\$1,557	\$9,200
Technicians and associate professionals	\$4,800	\$1,000
Clerical support workers	\$0	\$0
Service and sales workers	\$1,258	\$1,363
Skilled agricultural, forestry and fishery workers	\$1,762	\$1,042
Craft and related trades workers	\$3,254	\$646
Plant and machine operators and assemblers	\$0	\$800
Elementary occupations	\$50	\$0

10. OWN-USE PRODUCTION AND SUBSISTENCE WORK

Chapter 10 presents information on own-use production work and subsistence work by demographic characteristics, including sex, age group, and educational attainment, as well as the national distribution of persons involved in own-use production work and subsistence work.

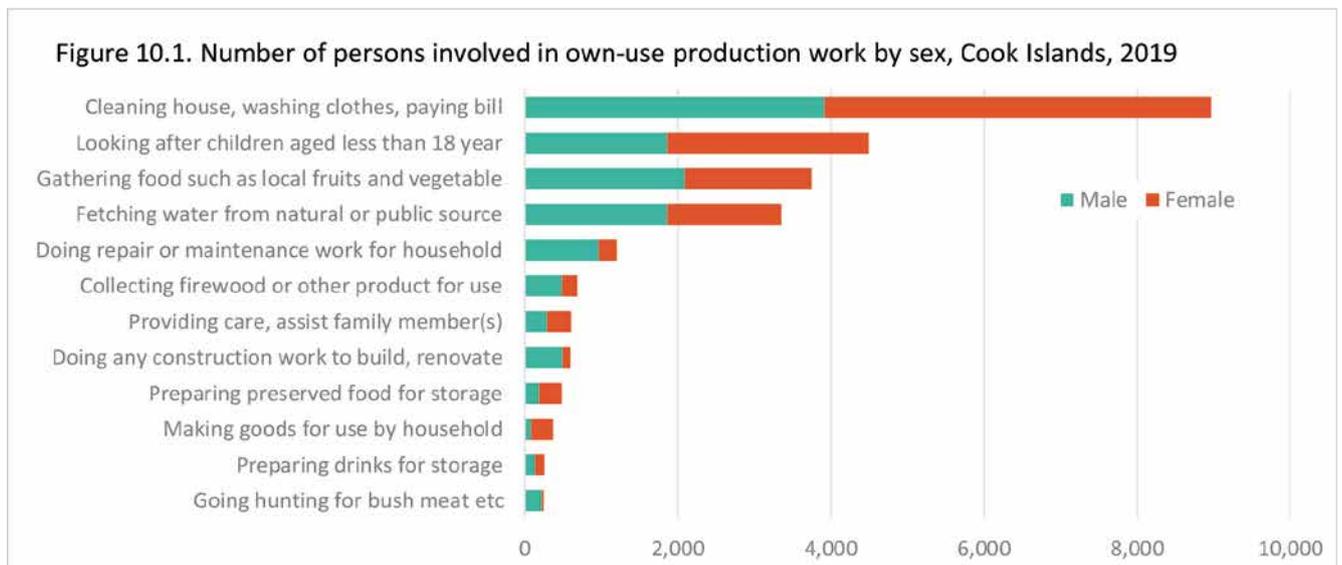
According to the international definition, own-use producers are all persons of working age (15 years old and above) who were engaged in own-use production work for at least one hour during the reference period. Own-use production comprises any activity to produce goods or provide services for own final use, interpreted to mean production where the intended destination of the output as self-declared is mainly for final use by the producer in the form of capital formation, or final consumption by household members, or by family members living in other households. In the case of agricultural, fishing, hunting or gathering goods intended mainly for own consumption, a part or surplus may nevertheless be sold or bartered.

10.1 OWN-USE PRODUCTION WORK

Among the 11,445 working-age population, about 10,056 persons (87.7 percent) in the Cook Islands reported being engaged in some form of own-use production work, with women accounting for 51.9 percent and men for 48.1 percent (Table 10.1). Around three quarters of all those who engaged in own-use production work (73.6 percent) were based in Rarotonga.

Figure 10.1 shows the number of persons involved in own-use production work in the LFS 2019. The bulk of own-use producers, mostly women, had engaged in cleaning house, washing clothes, paying bills, which made up of 56.3 percent among all producers. A large number of men were also engaged in cleaning the house, looking after children, gathering food and fetching water.

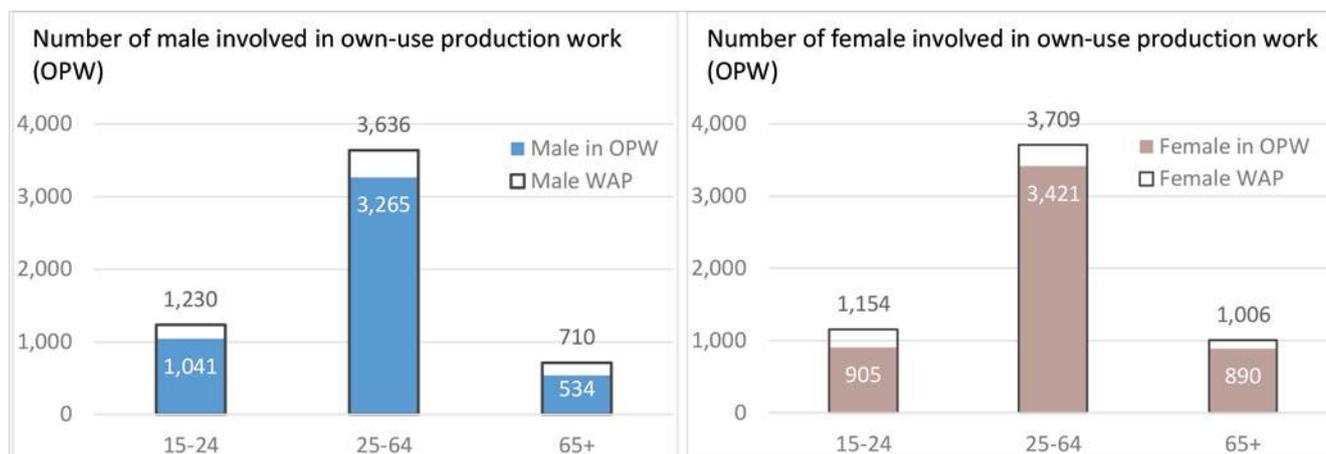
Figure 10.1. Number of persons involved in own-use production work by sex, Cook Islands, 2019





According to the distribution of the working-age population engaged in own-use production by age group shown in Figure 10.2, the proportion was higher for females in age group 25-64 (92.2 percent) than for their male counterparts (89.8 percent). In youth age group 15-24, the proportion was lower among females (78.4 percent), compared to 84.6 percent of male youth who were engaged in own-use production work.

Figure 10.2. Number of male and female involved in own-use production work, Cook Islands, 2019



10.2 SUBSISTENCE FOOD PRODUCERS

Subsistence food producers are a subgroup of persons in own-use production work. They are those who are engaged in own-use production of agriculture goods including fishing, hunting or gathering that contribute to the livelihood of the household or family. Among the 10,056 own-use producers, some 1,229 may be classified as subsistence food producers, corresponding to around 10.7 percent of the working-age population. Most of the subsistence food producers were men (60.9 percent), and women made up 39.1 percent of the total subsistence food producers. Most of the subsistence food producers were located in the Outer Islands with a subsistence food producer rate of 24.2 percent (Figure 10.3).

Figure 10.3. Own-use production rate (%) and subsistence food producer rate (%), by sex and region, Cook Islands, 2019

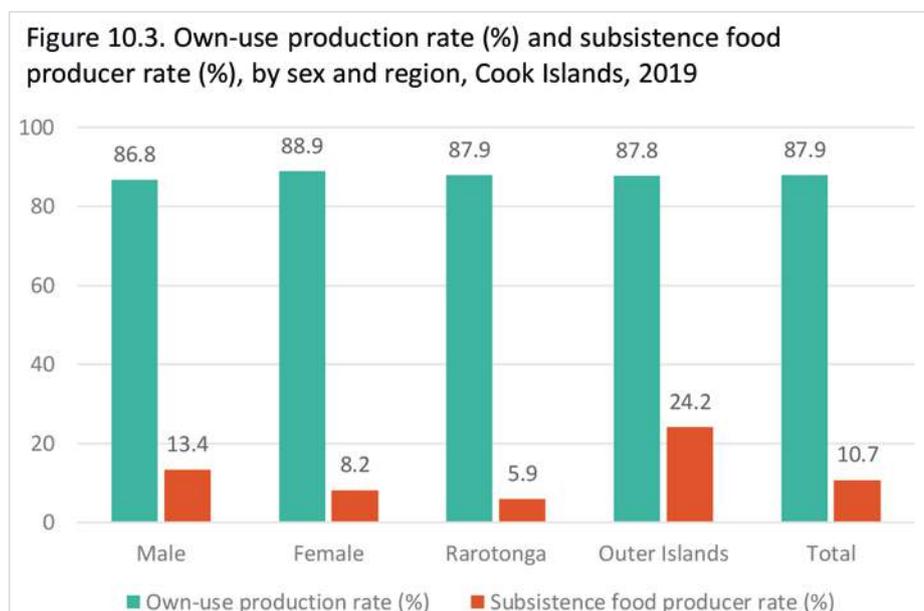




Table 10.1. Own-use production and subsistence work by sex, Cook Islands, 2019

	Male	Female	Total
Total own-use production work	4,840	5,215	10,056
<i>By age group</i>			
15-24	1,041	905	1,946
25-64	3,265	3,421	6,686
65+	534	890	1,423
<i>By educational attainment</i>			
Primary or less	433	398	832
Secondary	3,493	3,709	7,202
Tertiary	914	1,108	2,022
Own-use production rate (%)	86.8%	88.9%	87.9%
Subsistence food producers (total)	748	481	1,229
<i>By age group</i>			
15-24	221	99	321
25-64	361	273	635
65+	165	108	274
<i>By educational attainment</i>			
Primary or less	109	50	160
Secondary	556	384	941
Tertiary	83	46	129
Subsistence food producer rate (%)	13.4	8.2	10.7



Table 10.2. Own-use production and subsistence work by region, Cook Islands, 2019

	Rarotonga	Outer Islands
Total own-use production work	7,403	2,653
<i>By age group</i>		
15-24	1,443	503
25-64	4,998	1,688
65+	962	461
<i>By educational attainment</i>		
Primary or less	548	284
Secondary	5,027	2,174
Tertiary	1,828	195
Own-use production rate (%)	87.9%	87.8%
Subsistence food producers (total)	499	730
<i>By age group</i>		
15-24	106	215
25-64	253	382
65+	140	134
<i>By educational attainment</i>		
Primary or less	48	112
Secondary	345	596
Tertiary	106	23
Subsistence food producer rate (%)	5.9	24.2

11. WORKPLACE HEALTH AND SAFETY

This chapter presents the data on the occupational safety and health (OSH). The occupational safety and health at work are vital components of decent work. Statistics on occupational injuries are essential to assess the extent to which workers are protected from work-related hazards and risks. In the LFS, data on work-related injuries and illness that workers had experienced in the last 12 months prior to the survey were collected, including type of injury or illness, working days lost as well as causes of injuries or illness.

11.1 OCCUPATIONAL INJURIES AND ILLNESSES

Occupational injury and illness are defined as any personal injury resulting from a work-related accident. As shown in table 11.1, an estimated 218 persons aged 15 or above experienced an occupational injury and illness sometime during the last 12 months prior to the survey. Around 167 men (account for 76.6 percent) and 51 women (23.4 percent) reported occupational injury and illness.

Table 11.1. Persons aged 15 or above reporting an occupational injury or illness in the last 12 months, by sex, location and age group, Cook Islands, 2019

	Male	Female	Total
Total	167	51	218
<i>by location</i>			
Rarotonga	135	27	162
Outer Islands	32	24	56
<i>by age</i>			
15-24	59	4	63
25-64	81	47	129
65+	27	0	27

Time lost in days is an indicator that measures the consequences of occupational injuries. It gives a quantifiable measure of the impact of the injuries that is useful for designing targeted prevention mechanisms and for estimating the cost of occupational injuries. Table 11.2 indicates that the majority of persons reporting any occupational injury or illness in the last 12 months also reported that they had lost one working week, followed by a loss of one month.

Table 11.2. Number of reported occupational injuries and illnesses in the last 12 months, by number of working days lost, location and sex, Cook Islands, 2019

Days lost due to cases of occupational injury	Location and sex					
	Rarotonga		Outer Islands		Total	
	Male	Female	Male	Female	Male	Female
1 to 5 days (1 week) absent	62	.	.	11	62	11
6 to 10 days (2 weeks) absent	.	.	9	.	.	.
15 to 20 days (1 month) absent	.	.	10	7	10	7
21+ days (more than 1 month) absent	11	.	.	2	11	2
Not stated	11	.	.	.	11	.



Table 11.3 indicates that the largest proportion of occupational injuries occurred to those who engaged in services sector, followed by industry sector. There was no occupational injury or illness in the agriculture sector in the last 12 months.

Table 11.3. Number of reported occupational injuries and illnesses in the last 12 months, by sector, location and sex, Cook Islands, 2019

Economic sector	Location and sex				Total
	Rarotonga		Outer Islands		
	Male	Female	Male	Female	
Agriculture, forestry and fishery	0	0	0	0	0
Industry	5	0	0	0	5
Services	130	27	23	24	204

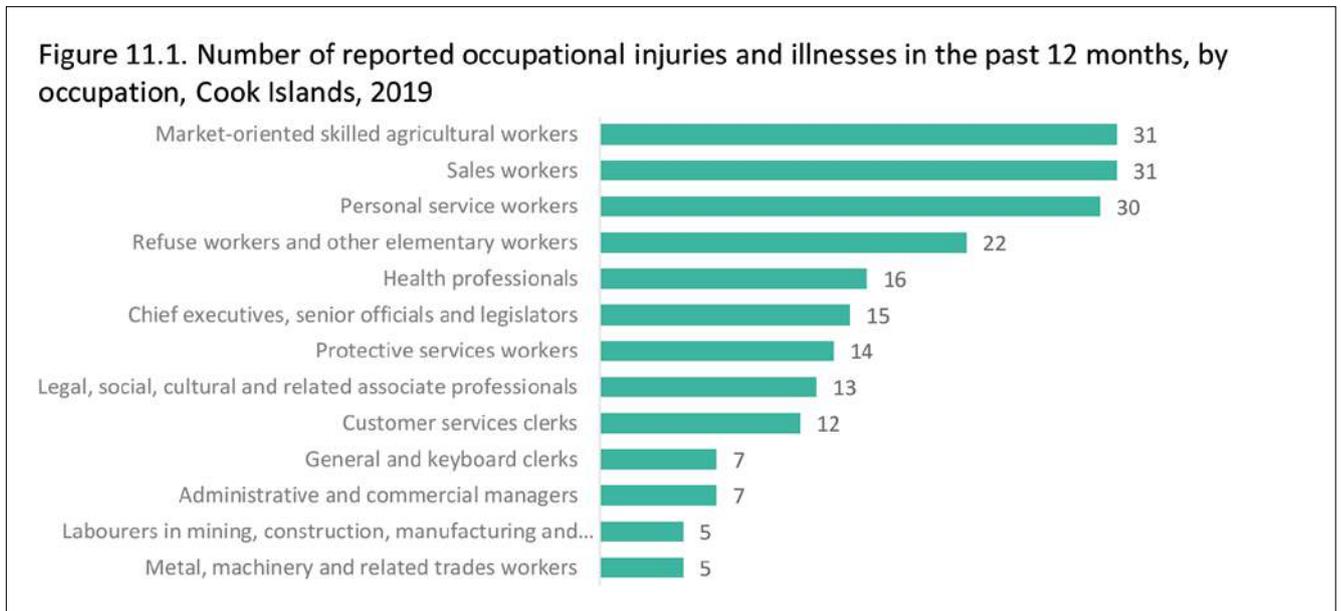
Table 11.4 and Figure 11.1 indicate that the largest number of occupational injuries incidence occurred to those who engaged as market-oriented skilled agricultural workers and sales workers. In Rarotonga, male employed persons experienced higher incidence of occupational injury or illness than female counterparts.

Table 11.4. Number of reported occupational injuries and illnesses in the last 12 months, by occupation, location and sex, Cook Islands, 2019

Occupation, 2-digit level - main job	Location and sex				Total
	Rarotonga		Outer Islands		
	Male	Female	Male	Female	
Sales workers	0	27	0	5	31
Market-oriented skilled agricultural workers	22	0	9	0	31
Personal service workers	18	0	8	4	30
Refuse workers and other elementary workers	22	0	0	0	22
Health professionals	16	0	0	0	16
Chief executives, senior officials and legislators	15	0	0	0	15
Protective services workers	14	0	0	0	14
Legal, social, cultural and related associate professionals	11	0	0	2	13
Customer services clerks	12	0	0	0	12
Administrative and commercial managers	0	0	0	7	7
General and keyboard clerks	0	0	0	7	7
Metal, machinery and related trades workers	0	0	5	0	5
Labourers in mining, construction, manufacturing and transport	5	0	0	0	5



Figure 11.1. Number of reported occupational injuries and illnesses in the last 12 months, by occupation, Cook Islands, 2019



12. SOCIAL PROTECTION: COVERAGE AND BENEFITS



Chapter 12 presents information on population covered by social protection schemes as well as population not covered by and not receiving any social protection by sex, age, region and educational attainment. The notion of social security covers all measures providing benefits, whether in cash or in kind, to secure protection from (a) lack of work-related income (or insufficient income) caused by sickness, disability, maternity, employment injury, unemployment, old age, or death of a family member; (b) lack of access or unaffordable access to health care; (c) insufficient family support, particularly for children and adult dependants; (d) general poverty and social exclusion¹³. In this analysis, persons receive at least one of the above social benefits are recorded as population with social protection coverage.

12.1 SOCIAL PROTECTION SCHEMES AND CURRENT POPULATION COVERAGE

In the Cook Islands Labour Force Survey 2019, survey respondents were asked if they currently get paid benefits from any form of social protection coverage or health scheme. As shown in Table 12.1, of the total population, 23.8 percent were covered by social protection, including 19.8 percent of men and 27.9 percent of women. The proportion of population covered by social protection was highest in the Southern Group (31.6 percent), followed by the Northern Group (26.7 percent) and Rarotonga (21.2 percent). Cook Islands' total social protection coverage rate was well below the world average of 45.2 percent and Asia-Pacific region's average of 38.9 percent¹⁴.

Table 12.1 and Figure 12.1 illustrate that by age group, 95.3 percent of old-age population aged 65 and above were covered by social protection. In particular, female elderly population had a high coverage rate of 97.4 percent, compared to the male counterpart of 92.4 percent. Age group 0-14 had the lowest coverage rate of 8.6 percent, of which 5.2 percent of female and 11.2 percent of male were covered by social protection. It indicates that social protection for children was low compared to older persons. For the core labour force aged 25-64, their social protection coverage rates were relatively low, where only 23.5 percent of female and 12.6 percent of male were receiving benefits.

Figure 12.1. Share of population (%) covered by social protection by sex and age group, Cook Islands, 2019

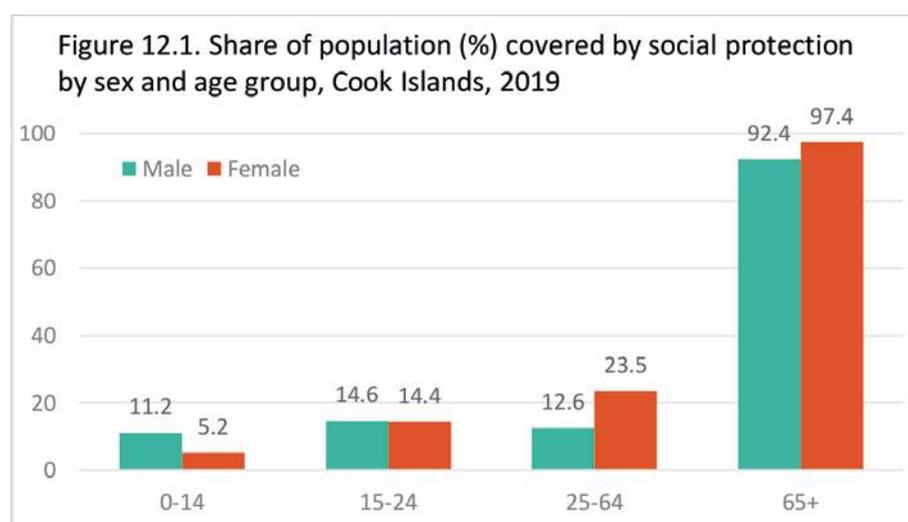




Table 12.1. Total population covered by social protection, by sex, age, education and main location, Cook Islands, 2019

Population covered by social protection	Male		Female		Total	
	No	%	No	%	No	%
<i>By age group</i>						
0-14	241	11.2	87	5.2	328	8.6
15-24	180	14.6	166	14.4	345	14.5
25-64	457	12.6	872	23.5	1,329	18.1
65+	656	92.4	980	97.4	1,635	95.3
<i>By educational attainment</i>						
Primary or less	469	23.6	437	27.5	906	25.3
Secondary	873	21.2	1,390	32.4	2,263	26.9
Tertiary	192	19.0	277	23.4	468	21.4
<i>By main location</i>						
Rarotonga	946	17.3	1,351	25.0	2,297	21.2
Southern Group	468	27.9	568	35.6	1,036	31.6
Northern Group	120	20.4	185	33.5	305	26.7
Total population covered by social protection	1,533		2,104		3,638	
Proportion in the total population (%)	19.8%		27.9%		23.8%	

The Cook Islands has two main social protection schemes, including sickness benefits and old age/retirement benefits, as well as eight categorical social protection programmes of caregiver allowance, child benefit, destitute benefit, infirm benefits, new-born allowance, funeral allowance, power subsidy, and special assistance¹⁵.

Caregiver's Allowance: A payment provided to people who are required to provide substantial day to day care to elderly Cook Islanders or people with permanent disabilities who have high care needs and do not have the capacity to access such care.

- Child Benefit: the eligible age for the Child Benefit will be extended to children under the age of 16 years as of 1 July 2019.
- New-Born Allowance: A lump sum payment to mothers on the birth of a child in the Cook Islands.
- Old Age Pension: A taxable payment provided to eligible Cook Islanders from the age of 60.
- Destitute and Infirm Payment: A working age payment provided to Cook Islanders that are unable to permanently support themselves by their own means or labour and includes persons with dependents where such dependents are unable, through infirmity or age, to support themselves by their own means and labour.
- Government Funded Paid Maternity Leave payment: A payment to assist private sector employers in meeting paid maternity leave obligations for working women who give birth.

15 Cook Islands Government, 2019. Budget Estimates 2019/2020 - Book 1. Appropriation Bill. Appropriations and Commentary. https://2ea1d92bczhh11rmgm1rcot6-wpengine.netdna-ssl.com/wp-content/uploads/2019/06/2019-2023_Budget_Book_1_FINAL-1.pdf



Based on the LFS 2019 estimates, 0.9 percent of total population were covered by sickness benefits and 14.2 percent were covered by old age/retirement benefits. Figure 11.2 reflects that of the 2,165 persons were receiving old age/retirement benefits, 56.8 percent was female and 43.2 percent was male. By location, 74.6 percent of sickness benefits receivers were living in Rarotonga, with only 18.1 percent in the Southern Group and 8.0 percent In the Northern Group. The distribution was similar for those who receive old age/retirement benefits, where 62.9 percent of old age pension receivers were living in Rarotonga, with 31.3 percent in the Southern Group and 5.8 percent In the Northern Group.

According to the LFS estimates, about 1,330 persons were covered by other social protection schemes, where the coverage of child benefits had the highest ratio of 8.1 percent in the total population, followed by disability benefits (0.2 percent) and caregiver's allowance (0.2 percent).

Figure 12.2. Share of main social protection schemes coverage (%) by sex, age group and region, Cook Islands, 2019

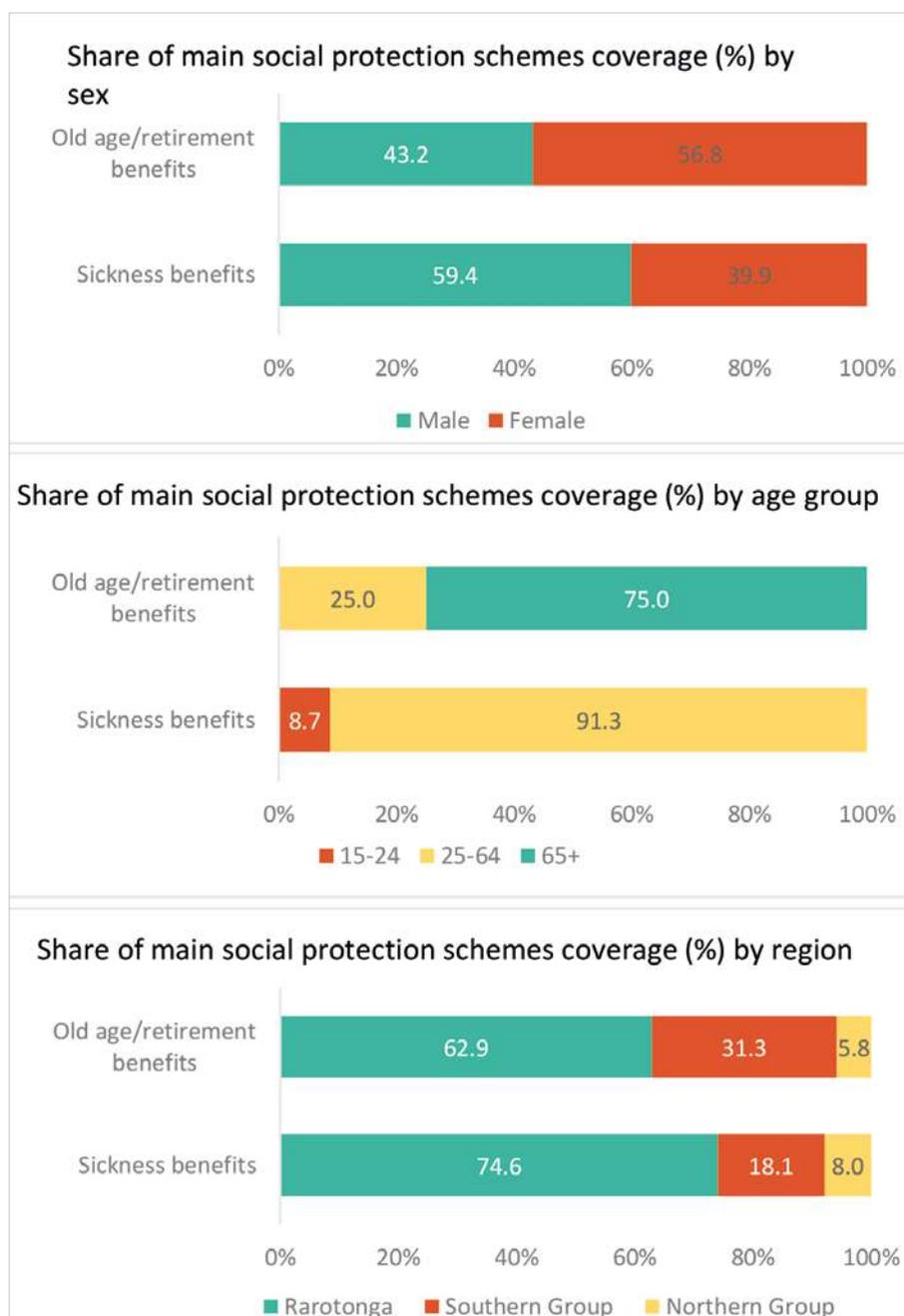




Table 12.2. Total population covered by social protection, by main social protection schemes, sex, age, education and region, Cook Islands, 2019

Main social protection schemes	Sickness benefits	Old age/retirement benefits	Total
Total population covered by social protection	138	2,165	2,302
<i>By sex</i>			
Male	82	936	1,018
Female	55	1,229	1,284
<i>By age group</i>			
0-14	0	0	0
15-24	12	0	12
25-64	126	541	667
65+	0	1,624	1,624
<i>By educational attainment</i>			
Primary or less	57	412	470
Secondary	68	1,396	1,464
Tertiary	13	356	369
<i>By main location (regions/ provinces/ islands)</i>			
Rarotonga	103	1,361	1,464
Southern Group*	25	678	703
Northern Group	11	125	136
Proportion in the total population (%)	0.9%	14.2%	15.1%

Table 12.2. Total population covered by social protection, by main social protection schemes, sex, age, education and region, Cook Islands, 2019

Other social protection schemes	Caregiver allowance	Child benefit	Destitute benefit	Disability benefits	Infirm benefits	NZ Old Age Pension	Total
Total population covered by social protection	24	1,233	10	27	22	14	1,330
<i>By sex</i>							
Male	0	475	0	20	8	12	516
Female	24	757	10	7	14	2	815
<i>By age group</i>							
0-14	0	328	0	0	0	0	328
15-24	0	319	0	7	8	0	334
25-64	24	586	10	20	14	2	657
65+	0	0	0	0	0	12	12
<i>By educational attainment</i>							
Primary or less	0	408	0	15	14	0	437
Secondary	24	728	10	12	8	12	794
Tertiary	0	97	0	0	0	2	99
<i>By main location</i>							
Rarotonga	0	802	0	11	6	14	833
Southern Group*	6	289	10	7	16	0	328
Northern Group	18	142	0	9	0	0	169
Proportion in the total population (%)	0.2%	8.1%	0.1%	0.2%	0.1%	0.1%	8.7%

12.2 POPULATION NOT COVERED BY AND NOT BENEFITING FROM SOCIAL PROTECTION

Table 12.4 indicates that of the total 15,277 population, 54.8 percent were not covered by and not receiving any social protection, with 57.0 percent of male and 52.6 percent of female were outside the social protection schemes. Figure 12.3 illustrates that by age group, more than 80 percent of youth (15-24) and adult population (25-64) were not covered by and benefiting from social protection, compared to a relatively low non-coverage ratio of less than 7 percent among young children (0-14) and elderly population (65+). It indicates that a large number of “missing middle” were likely not benefiting from social protection programmes, nor do their earnings allow them to contribute to social insurance schemes.

Figure 12.4 illustrates that by region, the population in Rarotonga had the highest non-coverage ratio of 59.4 percent, where 62 percent of Rarotonga male and 56.8 percent of Rarotonga female were not covered by and not benefiting from social protection. The lowest non-coverage ratio was recorded in the Northern Group (36.5 percent), with 43.2 percent of male and 29.1 percent of female not covered by and not benefiting from social protection.



Figure 12.3. Population not covered by and not receiving any social protection (%) by sex and age group, Cook Islands, 2019

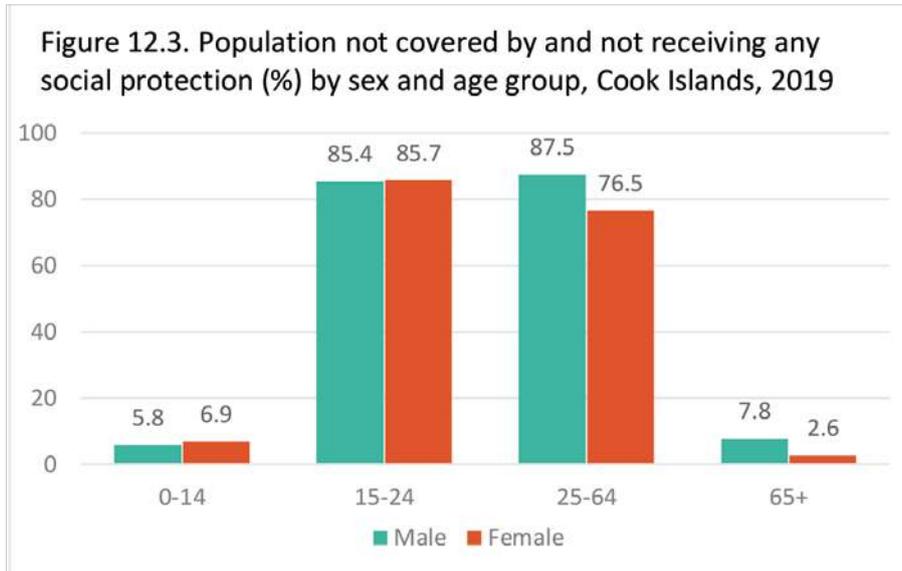


Figure 12.4. Population not covered by and not receiving any social protection (%) by sex and region, Cook Islands, 2019

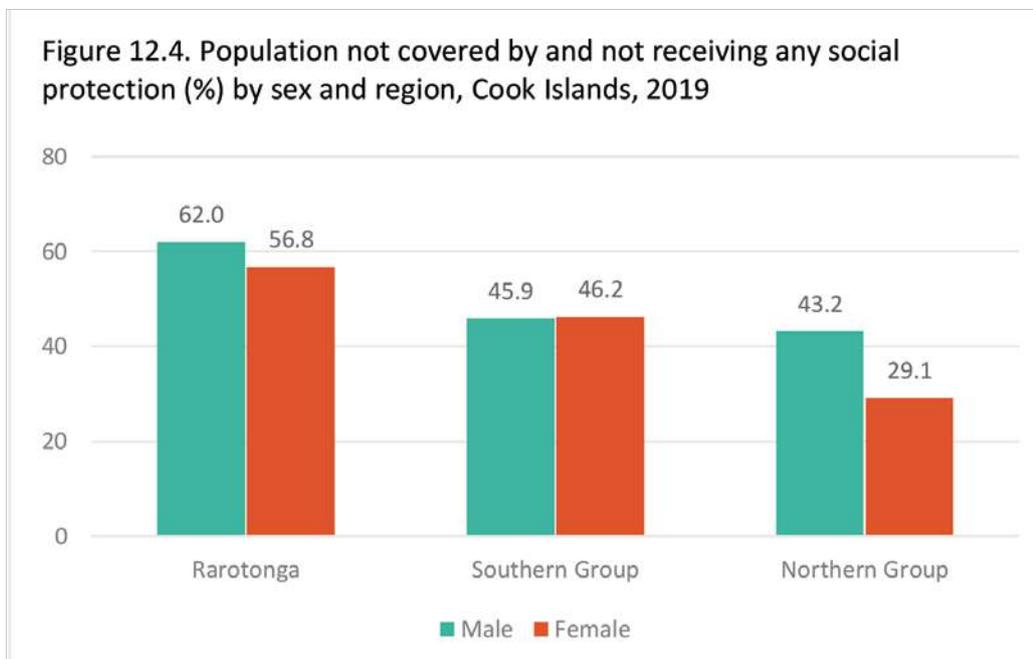




Table 12.4. Total population not covered by, and not receiving any social protection, by sex, age, education and main location, Cook Islands, 2019

Population not covered by and not receiving any social protection	Male		Female		Total	
	No	%	No	%	No	%
<i>By age group</i>						
0-14	124	5.8	116	6.9	240	6.3
15-24	1,050	85.4	989	85.7	2,039	85.5
25-64	3,180	87.5	2,837	76.5	6,016	81.9
65+	55	7.8	26	2.6	81	4.7
<i>By educational attainment</i>						
Primary or less	353	17.8	183	11.5	536	15.0
Secondary	3,238	78.6	2,879	67.2	6,117	72.8
Tertiary	817	81.0	905	76.6	1,722	78.6
<i>By main location (regions/ provinces/ islands)</i>						
Rarotonga	3,383	62.0	3,068	56.8	6,451	59.4
Southern Group	770	45.9	738	46.2	1,509	46.1
Northern Group	254	43.2	161	29.1	416	36.5
Total population not covered by social protection	4,408		3,967		8,375	
Proportion not covered by social protection (%)	57.0%		52.6%		54.8%	

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A.1 MAIN CONCEPTS AND DEFINITIONS

The main concepts and definitions of the Cook Islands Labour Force Survey 2019 were designed in line with the international standards on statistics of work, employment, and labour underutilization adopted by the 19th International Conference of Labour Statisticians (Geneva, 2013)¹⁶.

Household

A “household” is defined as a person or group of persons who live together in the same house or compound who share the same housekeeping arrangements and who are catered for as one unit. Members of a household are not necessarily related to each other, either by blood or marriage. Conversely, members who live together in the same house or compound and are related by blood or marriage do not necessarily belong to the same household. To be considered a household member, an individual must reside with the other household members in the dwelling for a substantial part of the year (e.g., six-month criterion) and must not be a member of any other household.

Work

The starting point for the international standards on statistics of work, employment and labour underutilization is the concept of work, which is defined as:

- “Any activity performed by persons of any sex and age to produce goods or to provide services for use by others or for own use” in line with the General production boundary defined in the System of National Accounts 2008.
- Work is defined “irrespective of its formal or informal character or the legality of the activity.”
- It excludes “activities not involving production of goods or services (begging, stealing), self-care (personal grooming, hygiene) and activities that cannot be performed by another person on one’s own behalf (sleeping, learning, own recreation).”

Employment

Persons in employment are defined as all of those above a specified age who, during a specific reference period, were engaged in any activity to produce goods or provide services for pay or profit. It excludes persons engaged wholly in activities to produce goods or services for own final use such as producing agricultural, fishing and gathering products for own-consumption or cleaning, decorating, gardening and maintaining one’s own dwelling or premises, durables and other goods.

Persons in employment comprise:

- a) employed persons at work, i.e., who worked in a job for at least one hour;
- b) employed persons not at work due to temporary absence from a job, or due to working-time arrangements, such as shift work, flexi-time and compensatory leave for overtime.

Unemployment (U)

The international standard definition of unemployment is based on the following three criteria, which should be satisfied simultaneously: “without work”, “currently available for work” and “seeking work”. The “unemployed” comprise all persons older than a specified age who during the reference period were:

- a) without work – not in paid employment nor self-employed;
- b) currently available for work – available for paid employment or self-employment during the reference period;
- c) seeking work – had taken specific steps in a specified reference period to seek paid employment or self-employment.

The definition of unemployment provides an exception in the case of future starters. They are considered as unemployed even if they did not carry out activities to seek employment during the specified period.



Youth

The term “youth” covers persons aged 15 to 24 years and “adult” refers to persons aged 25 years and above.

Time-related underemployment (TRU)

Persons in time-related underemployment are defined as all persons in employment who, during a specified reference period:

- a) wanted to work additional hours;
- b) whose working time in all jobs was less than a specified hours threshold;
- c) who were available to work additional hours given an opportunity for more work;

In the Cook Islands LFS, the underemployment threshold was set at 35 hours usually worked per week.

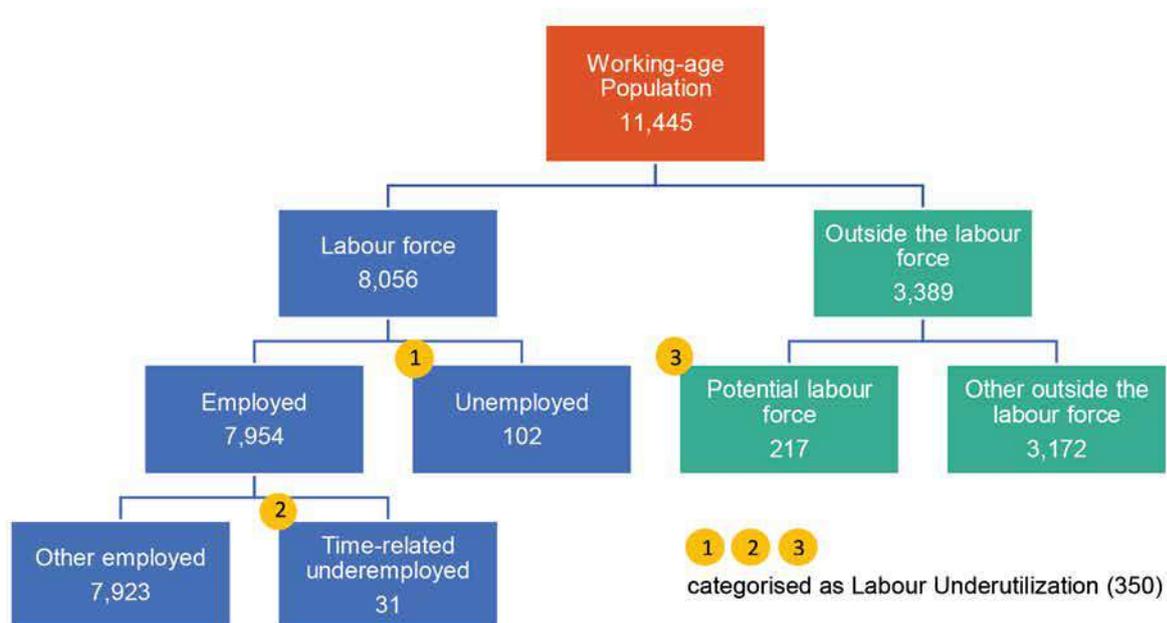
Potential labour force (PLF)

Potential labour force is defined as all persons above a specified age who, during the reference period, were neither in employment nor in unemployment but who were considered as:

- a) unavailable jobseekers – who were seeking employment but not currently available; or
- b) available potential jobseekers – who were currently available for employment but did not carry out activities to seek employment.

The relationship of the various concepts is shown in Figure A.1 below.

Figure A.1.1. Labour force and labour underutilization framework





Own-use producers

Persons in own-use production work are defined as all those of working age (aged 15 and above) who, during the reference period, performed any activity to produce goods or provide services for own final use and for a cumulative total of at least one hour.

“For own final use” is interpreted as production where the intended destination of the output is mainly for final use (in the form of capital formation, or final consumption by household members, or by family members living in other households).

Subsistence food producers

Subsistence food producers constitute an important subgroup of persons in own-use production work. They are defined as all those who performed any of the specified activities to produce foodstuff from agriculture, fishing, hunting or gathering that contribute to the livelihood of the household or family. Excluded are persons who engaged in such production as recreational or leisure activities.

Own-use producers and in particular subsistence food producers may be engaged in other activities, including employment or search for employment in the same reference period. On the basis of their other activity, certain own-use producers may also be in the labour force and classified as employed, unemployed or other labour underutilization category.

Informal sector

The informal sector consists of unregistered and/or small unincorporated private enterprises engaged in the production of goods or services for profits. It is comprised of economic units (business enterprises) that are not covered or not fully covered by formal requirements by law; or informal arrangements in practice.

Employment in the informal sector refers to those jobs that generally lack basic social or legal protections or employment benefits.

Informal employment

Informal employment is defined as the type of employment where the diversified set of economic activities, enterprises, jobs, and workers are not regulated or protected by the government, have no explicit or written contracts of employment, no certain employment benefits (such as social protection coverage, severance pay, paid sick and annual leave) or for which labour regulations are not applied nor enforced.

Informal employment comprises all persons with informal jobs, whether carried out in formal or informal sector enterprises, or in households, during a given reference period, which includes:

- Own-account workers (self-employed with no employees) in their own informal sector enterprises;
- Employers (self-employed with employees) in their own informal sector enterprises;
- Contributing family workers, irrespective of type of enterprise;
- Members of informal producers' cooperatives (not established as legal entities);
- Employees holding informal jobs as defined according to the employment relationship (in law or in practice, jobs not subject to national labour legislation, income taxation, social protection or entitlement to certain employment benefits (paid annual or sick leave, etc.);
- Own-account workers engaged in production of goods exclusively for own final use by their household.

Status in employment

The position of the employed person at his/her place of work with regard to its employment relation with the employing economic unit or business, as classified according to the International Classification of Status in Employment of 1993 (ICSE-93), namely:

- Wage and salaried employee – a person who works in any economic unit such as the government department, private business enterprises or organisations, including family businesses, and receives regular pay;
- Employer – a person who runs a business on his/her own or in partnership and engages at least one paid employee on a continuous basis in operating the business;



- Own account worker – a person who runs a business on his/her own or in partnership but does not engage any paid employee on regular basis (self-employed and not employing others);
- Contributing family worker – a person who works in his/her family business without receiving any regular pay.

Employment by industry

The kind of economic unit or kind of goods produced by the unit in which the employed person worked during the reference period, classified according to the International Standard Industrial Classification of All Economic Activities (ISIC).

Employment by occupation

The kind of work or group of tasks done during the reference period by the person employed, classified according to the International Standard Classification of Occupations (ISCO-08).

Reference period

For the employment section, the reference period is a week prior to the interview.

Working Age Population (WAP)

Refers to all those persons aged 15 years old and above.

$$WAP \text{ (AGED 15+)} = LF \text{ (LABOUR FORCE)} + NLF \text{ (NOT IN LABOUR FORCE)}$$

Labour Force (LF)

Refers to the total of employed and unemployed population of the working age population.

$$LF = E \text{ (EMPLOYED)} + U \text{ (UNEMPLOYED)}$$

Not in Labour Force (NLF) or Population outside of the labour force

Refers to the population of the working age who are not part of the labour force. It also refers to the working age population who are neither employed nor unemployed.

Labour Force Participation Rate (LFPR)

The labour force participation rate is a measure of the proportion of working-age population that engages actively in the labour market, either by working or looking for work. It provides an indication of the size of the supply of labour available to engage in the production of goods and services, relative to the working-age population. Labour force participation rate is defined as the ratio of the labour force to the working-age population (aged 15 and above).

$$LFPR = \frac{LF}{WAP}$$



Employment to Population Ratio (EPR)

The employment-to-population ratio is defined as the proportion of employed population to the working-age population. A high ratio means that a large proportion of a country's population is employed, while a low ratio means that a large share of the population is not involved directly in market-related activities, because they are either unemployed or (more likely) out of the labour force altogether.

$$EPR = \frac{(PERSONS EMPLOYED)}{WAP}$$

Labour Underutilization (LU)

The composite measure of all those who are in unemployment (U), in time-related underemployment (TRU) or in the potential labour force (PLF).

$$LU = U + TRU + PLF$$

Extended labour force (Extended LF)

Extended labour force refers to the total population in the labour force and potential labour force.

$$EXTENDED LF = LF + PLF$$

Unemployment Rate (UR or LU1)

Unemployment rate is the proportion of unemployed population to the total population in labour force. This rate measures the percentage of unemployed population in labour force.

$$UR = \frac{(PERSONS UNEMPLOYED)}{LF}$$

Combined rate of time-related underemployment and unemployment (LU2)

The combined rate of time-related underemployment and unemployment (LU2) represents the share of the labour force that are either in unemployment or time-related underemployment.

$$LU2 = \frac{(U + TRU)}{LF}$$

Combined rate of unemployment and potential labour force (LU3)

The combined rate of unemployment and potential labour force (LU3) represents the share of the extended labour force that are in unemployment or the potential labour force.

$$LU3 = \frac{(U + PLF)}{(EXTENDED LF)}$$

Composite measure of labour underutilization (LU4)

The composite measure of labour underutilization (LU4) represents the share of the extended labour force that are in unemployment, time-related underemployment or the potential labour force.

$$LU4 = \frac{(U + TRU + PLF)}{(EXTENDED LF)}$$



A.2 DETAILED SURVEY METHODOLOGY

The sample frame used for the selection of sample for the Cook Islands Labour Force Survey 2019 was based on the 2016 Census of Population and Dwellings. The population and housing census gather detailed information on every person residing in the Cook Islands. It enables data on work and the characteristics of workers to be extracted.

The sample design of the Cook Islands Labour Force Survey 2019 was developed as a two-stage stratified design: in the first stage, a stratified sample of Enumeration Areas was randomly selected from the 2016 Census sampling frame, followed by listing all private households in the sample Enumeration Areas; at the second stage, sample private households were drawn in each sample EAs for interviewing. Private households exclude population living in military barracks, penal institutions, dormitories of schools and universities, religious institutions, hospitals and so forth.

A.2.1 SAMPLE DESIGN AND SIZE DEFINITION

The computation of sample size required the use of:

- Cook Islands 2015/16 Household Income and Expenditure Survey (HIES) dataset (labour force section)
- Cook Islands 2016 population census (distribution of households across the strata)

The resource variable used to compute the sample size is the labour force participation rate from the 2015/16 HIES. The use of the labour force section of the HIES allows the computation of the design effect of the labour force participation rate within each stratum. The design effect and sampling errors of the labour force participation rate estimated from the 2015/16 HIES in combination with the 2016 household population distribution allow to predict the minimum sample size required per stratum to get a robust estimate from the 2019 LFS.

The allocation of 531 households using the optimal allocation provides the following sampling errors (labour force participation rate) in table A.2.1.

Table A.2.1. Sampling errors for the 2019 Labour force survey

	Labour Force Participation Rate % (from HIES 2015/16)	Std Error	RSE	Number of HHs	Number of clusters
1. Rarotonga urban	66%	1.9%	2.9%	315	35
2. Outer Islands rural	57%	2.1%	3.8%	216	24
National Islands	Cook 64%	1.5%	2.4%	531	59

By using those indicators derived from the 2015/16 HIES and the updated population count from the 2016 Census, an ideal sample size was calculated with a predicted relative sampling error (RSE) lower than 2.4% (2.9% in Rarotonga urban and 3.8% in the Outer Islands rural). Lastly, the sample sizes were corrected using the finite population correction (fpc) adjustment factor that applies in the context of the Small Islands Territories.

The final sample size calculated for Rarotonga were 788 working-age adults and using the household size derived from the Census in this stratum, it represents 315 households with a household size of 2.5 adult population. In the Outer Islands rural, the sample size reached 518 working-age adults, representing 216 households with an average household size of 2.4 adult population. The cluster size in all EAs was 9 households per EA.



2.4.2 SAMPLING PROCEDURE

Final sample size:	531 households
Geographical stratification:	2 Islands groups: Rarotonga (Urban), Outer Islands (Rural)
Selection process:	Two-stage stratified design (two-stage sample selection), i.e., random selection of Enumeration Areas (EAs) and random selection of households within each EA. During the first stage, EAs are selected using Probability Proportional to Size. During the second stage, households are randomly selected within each (9 households per cluster).
Non-response:	A 10% increase of the sample happened in all strata to account for non-response.
Sampling frame:	The sampling frame was based on the household listing from 2016 Census of Population and Dwellings. The labour force section of the 2015/16 HIES was used to compute the sample size (using labour force participation rate).

2.4.3 WEIGHTING PROCEDURES

The weighting process started with the computation of the sampling weight at the household level. For the calculation of the probability of selection, the number of households listed is obtained from the listing form and the number of sample households selected is the sample-take, the fixed number of sample households selected in each sample Enumeration Area. The number of sample households with completed and partially completed interviews is obtained from the cover page of the filled-in household questionnaire. The probability of selection of the sample Enumeration Area is proportional to size to the number of households in the sample Enumeration Area according to the sampling frame.

The household weights were computed using:

- the inverse of the factor of the probability of selection of the EA, and
- the probability of selection of the household within the selected EA.

$$PROB\ 1 = \frac{TOTAL\ HOUSEHOLD\ NUMBER\ IN\ EA\ N}{TOTAL\ HOUSEHOLD\ NUMBER\ IN\ STRATUM\ K} \times NUMBER\ OF\ EA\ TO\ SELECT\ IN\ STRATUM\ K$$

$$PROB\ 2 = \frac{TOTAL\ NUMBER\ OF\ HOUSEHOLD\ INTERVIEWED}{UPDATED\ HOUSEHOLD\ LISTING}$$

Prob 1 is the probability of selecting one EA within each stratum. Prob 2 is the probability of selecting one household within each stratum.

$$WEIGHT = \frac{1}{PROB\ 1 \times PROB\ 2}$$



Based on the total number of persons interviewed in each EA, 2019 LFS estimated population was calculated as

$$2019 \text{ LFS ESTIMATED POPULATION} = \sum \text{WEIGHT} \times \text{TOTAL NUMBER OF PERSONS INTERVIEWED}$$

Finally, the extrapolation weights were adjusted to conform to known 2020 population projections. This process of adjustment is called calibration. Calibration means using calibrated weights such that the application of these weights to the auxiliary variables will give estimates exactly equal to the known population totals on those auxiliary variables.

2019 LFS estimated population equals 17,280. Based on the 2020 population projections of 15,200, the adjusted first set of weights were calculated as

$$\text{ADJUSTED WEIGHT 1} = \text{WEIGHT} \times \frac{2020 \text{ POPULATION PROJECTIONS}}{2019 \text{ LFS ESTIMATED POPULATION}}$$



Figure A.2.1 is the population structure comparison when the Labour Force Survey data are extrapolated using this first set of weights. It illustrates that the constructed population does not match the population projection at the youngest age groups. To adjust the structure to match the population age projection, a second set of household weights was used (by the Stata command reweight). The adjusted population structure for LFS 2019 is displayed in Figure A.2.2, which reflects a matched distribution of population by sex and age group between the 2020 population project and the 2019 LFS population structure.

Figure A.2.1. Comparison of 2020 population projections and 2019 LFS age group and sex distribution (first set of weights)

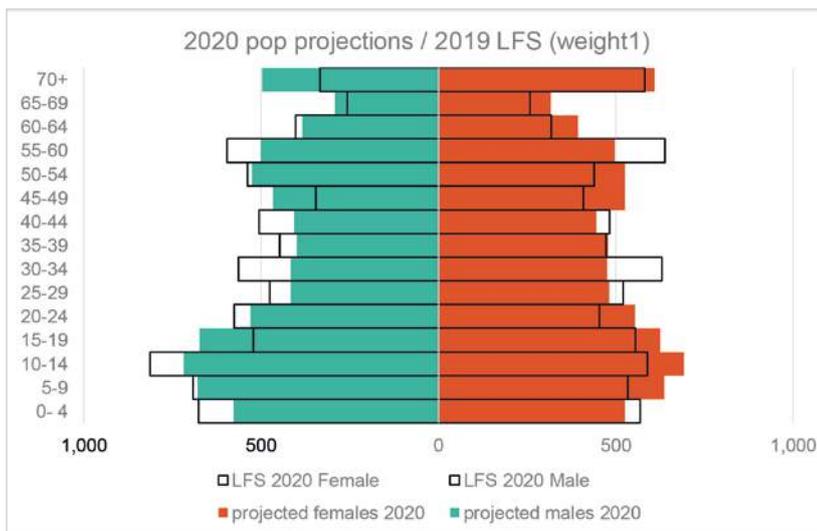
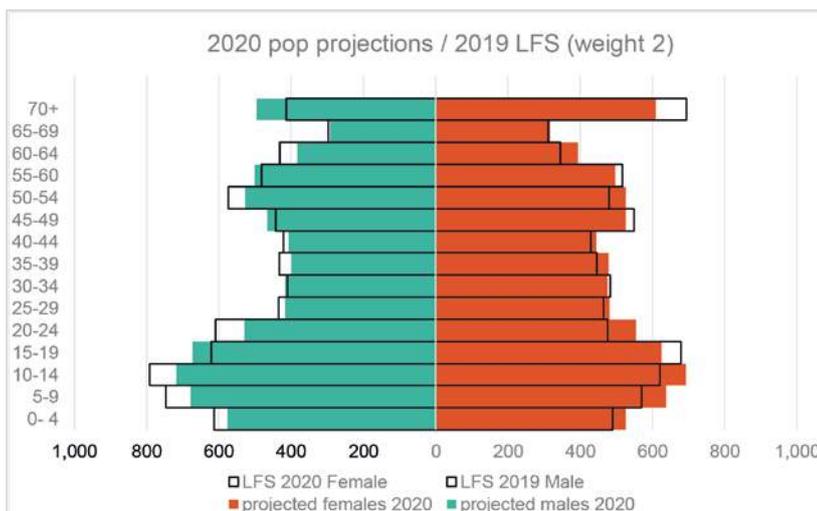


Figure A.2.2. Comparison of 2020 population projections and 2019 LFS age group and sex distribution (second set of weights)





A.3 SAMPLING ERRORS FOR SELECTED STATISTICS

Reliability of data

The precision of estimates derived from the sample survey are affected by sampling errors since the estimates are based on information obtained from a fraction of the population instead of the whole population. Sampling errors refer to the difference between the estimate based on a sample and its true population value that would result if the whole population has been surveyed. Survey estimates are subjected to sampling and non-sampling errors.

Sampling error

Sampling error is a result of estimating data based on a probability sampling. The extent of sampling error of an estimate under a particular sample design is assessed by the variability of the estimate across all possible samples under the design. One common measure of this variability is given by the standard error (SE), which is the standard deviation of the sampling distribution of the estimate. Another measure is the relative standard error (RSE), which is obtained by expressing the standard error as a percentage to the estimate. The smaller the RSE, the more precise is the estimate. For example, the labour force participation rate at the national level was 70.4 percent with standard error (std error) of 2.0 percent. At 95% confidence interval ($\alpha = 0.05$), the labour force participation rate was in the range of 66.5-74.3 percent.

The sampling error was computed using the survey package in Stata. The Finite Population Correction (fpc) was included in the sample design as follows:

- fpc 1: total number of EAs in both strata
- fpc 2: total population aged 15+ who lives in all selected EAs.

The following tables present sampling errors for selected statistics by sex and by location:

Table A.3.1. Sampling errors for selected statistics by sex and by location in 2019 LFS

Population aged 15 years and over	Cook Islands			
	Estimate	Standard error	95% Confidence Interval	
			Lower bound	Upper bound
Working Age Population	11,445	253	10,937	11,953
Labour Force Population	8,056	254	7,548	8,565
Employment Population	7,954	250	7,453	8,455
Labour Force Participation Rate	70.4%	2.0%	66.5%	74.3%
Unemployment Rate	1.3%	0.4%	0.5%	2.0%
Composite rate of labour underutilization (LU4)	4.2%	0.6%	2.9%	5.5%
Youth Unemployment Rate	3.5%	1.5%	0.5%	6.4%
Informal employment rate	15.9%	1.5%	12.9%	18.9%
Average monthly wages, employees	\$1,531	\$42	\$1,446	\$1,616
Share of informal employment (%)	24.7%	1.7%	21.2%	28.1%
Time-related underemployment rate	0.4%	0.2%	0.0%	0.8%
Unemployment rate	1.3%	0.4%	0.5%	2.0%
Potential labour force rate	6.4%	1.3%	3.9%	9.0%
Average actual hours of work per week				
All economic activities	39	0.46	38	39
Main economic activity	37	0.46	36	38



Secondary economic activity	13	1.14	11	15
Working-age population and own-use production work				
Own-use production rates (%)	87.9%	1.4%	85.1%	90.6%
Subsistence food producer rates (%)	10.7%	0.8%	9.0%	12.4%
Labour underutilization				
LU1: Unemployment rate (%)	1.3%	0.4%	0.5%	2.0%
LU2: Combined rate of time-related underemployment and unemployment (%)	1.6%	0.4%	0.8%	2.5%
LU3: Combined rate of unemployment and potential labour force (%)	3.9%	0.6%	2.6%	5.1%
LU4: Composite measure of labour underutilization (%)	4.2%	0.6%	2.9%	5.5%
Youth not in employment, education or training (NEET)				
Youth not in employment, education or training (%)	12.6%	2.2%	8.2%	17.0%
Male				
Population aged 15 years and over	Estimate	Standard error	95% Confidence Interval	
			Lower bound	Upper bound
Working Age Population	5,576	177	5,221	5,931
Labour Force Population	4,338	182	3,973	4,703
Employment Population	4,270	179	3,911	4,628
Labour Force Participation Rate	77.8%	2.2%	73.5%	82.1%
Unemployment Rate	1.6%	0.6%	0.4%	2.8%
Composite rate of labour underutilization (LU4)	4.2%	0.9%	2.3%	6.1%
Youth Unemployment Rate	4.7%	2.2%	0.2%	9.1%
Informal employment rate	16.8%	2.0%	12.9%	20.7%
Average monthly wages, employees	\$1,565	\$59	\$1,447	\$1,682
Share of informal employment (%)	24.1%	2.1%	19.9%	28.3%
Time-related underemployment rate	0.6%	0.4%	0.0%	1.3%
Unemployment rate	1.6%	0.6%	0.4%	2.8%
Potential labour force rate	7.6%	2.5%	2.6%	12.6%
Average actual hours of work per week				
All economic activities	40	0.56	39	41
Main economic activity	38	0.53	37	39
Secondary economic activity	12	1.39	10	15
Working-age population and own-use production work				
Own-use production rates (%)	86.8%	1.9%	83.1%	90.5%
Subsistence food producer rates (%)	13.4%	1.3%	10.7%	16.1%
Labour underutilization				
LU1: Unemployment rate (%)	1.6%	0.6%	0.4%	2.8%
LU2: Combined rate of time-related underemployment and unemployment (%)	2.1%	0.7%	0.8%	3.5%
LU3: Combined rate of unemployment and potential labour force (%)	3.7%	0.9%	1.9%	5.5%
LU4: Composite measure of labour underutilization (%)	4.2%	0.9%	2.3%	6.1%



Youth not in employment, education or training (NEET)				
Youth not in employment, education or training (%)	8.6%	2.4%	3.8%	13.3%
Female				
Population aged 15 years and over	Estimate	Standard error	95% Confidence Interval	
			Lower bound	Upper bound
Working Age Population	5,869	197	5,475	6,263
Labour Force Population	3,718	165	3,387	4,050
Employment Population	3,685	165	3,355	4,014
Labour Force Participation Rate	63.4%	2.4%	58.5%	68.2%
Unemployment Rate	0.9%	0.4%	0.1%	1.7%
Composite rate of labour underutilization (LU4)	4.3%	0.9%	2.4%	6.1%
Youth Unemployment Rate	1.7%	1.6%	0.0%	4.9%
Informal employment rate	14.9%	1.8%	11.3%	18.5%
Average monthly wages, employees	\$1,490	\$57	\$1,376	\$1,604
Share of informal employment (%)	25.4%	2.2%	20.9%	29.8%
Time-related underemployment rate	0.2%	0.2%	0.0%	0.6%
Unemployment rate	0.9%	0.4%	0.1%	1.7%
Potential labour force rate	5.7%	1.5%	2.8%	8.7%
Average actual hours of work per week				
All economic activities	37	0.65	36	38
Main economic activity	36	0.59	34	37
Secondary economic activity	14	1.80	10	17
Working-age population and own-use production work				
Own-use production rates (%)	88.9%	1.5%	85.8%	91.9%
Subsistence food producer rates (%)	8.2%	1.1%	5.9%	10.5%
Labour underutilization				
LU1: Unemployment rate (%)	0.9%	0.4%	0.1%	1.7%
LU2: Combined rate of time-related underemployment and unemployment (%)	1.1%	0.5%	0.2%	2.0%
LU3: Combined rate of unemployment and potential labour force (%)	4.1%	0.9%	2.3%	5.9%
LU4: Composite measure of labour underutilization (%)	4.3%	0.9%	2.4%	6.1%
Youth not in employment, education or training (NEET)				
Youth not in employment, education or training (%)	16.9%	3.8%	9.3%	24.5%
Rarotonga				
Population aged 15 years and over	Estimate	Standard error	95% Confidence Interval	
			Lower bound	Upper bound
Working Age Population	8,423	232	7,959	8,888
Labour Force Population	6,231	233	5,765	6,697
Employment Population	6,173	228	5,716	6,630
Labour Force Participation Rate	74.0%	2.5%	69.0%	78.9%



Unemployment Rate	0.9%	0.4%	0.1%	1.7%
Composite rate of labour underutilization (LU4)	3.2%	0.7%	1.8%	4.5%
Youth Unemployment Rate	1.9%	1.3%	0.0%	4.6%
Informal employment rate	15.3%	1.8%	11.6%	18.9%
Average monthly wages, employees	\$1,667	\$51	\$1,565	\$1,769
Share of informal employment (%)	22.2%	2.0%	18.1%	26.2%
Time-related underemployment rate	0.5%	0.3%	0.0%	1.1%
Unemployment rate	0.9%	0.4%	0.1%	1.7%
Potential labour force rate	5.2%	1.6%	1.9%	8.4%
Average actual hours of work per week				
All economic activities	39	0.56	38	41
Main economic activity	38	0.56	37	39
Secondary economic activity	13	1.39	10	16
Working-age population and own-use production work				
Own-use production rates (%)	87.9%	1.8%	84.3%	91.5%
Subsistence food producer rates (%)	5.9%	0.8%	4.4%	7.5%
Labour underutilization				
LU1: Unemployment rate (%)	0.9%	0.4%	0.1%	1.7%
LU2: Combined rate of time-related underemployment and unemployment (%)	1.4%	0.5%	0.5%	2.4%
LU3: Combined rate of unemployment and potential labour force (%)	2.7%	0.7%	1.4%	4.0%
LU4: Composite measure of labour underutilization (%)	3.2%	0.7%	1.8%	4.5%
Youth not in employment, education or training (NEET)				
Youth not in employment, education or training (%)	9.0%	2.5%	4.0%	13.9%
Outer Islands				
Population aged 15 years and over	Estimate	Standard error	95% Confidence Interval	
			Lower bound	Upper bound
Working Age Population	3,022	102	2,817	3,226
Labour Force Population	1,826	102	1,622	2,029
Employment Population	1,781	103	1,575	1,988
Labour Force Participation Rate	60.4%	2.8%	54.8%	66.1%
Unemployment Rate	2.4%	1.0%	0.4%	4.5%
Composite rate of labour underutilization (LU4)	7.7%	1.7%	4.3%	11.0%
Youth Unemployment Rate	10.3%	5.5%	0.0%	21.4%
Informal employment rate	18.1%	1.9%	14.3%	22.0%
Average monthly wages, employees	\$1,105	\$38	\$1,028	\$1,182
Share of informal employment (%)	33.3%	2.7%	27.8%	38.8%
Time-related underemployment rate	0.0%			
Unemployment rate	2.4%	1.0%	0.4%	4.5%
Potential labour force rate	8.7%	1.9%	4.8%	12.6%
Average actual hours of work per week				



A.4 ADDITIONAL STATISTICAL TABLES

KILM Indicators

Table A.4.1. Key indicators of the labour market (KILM) by sex and age group, Cook Islands, 2019

	Male	Female	Aged 15-24	Aged 25-64	Aged 65+	Total
Labour force participation rate (%)	77.8	63.4	17.4	75.8	6.8	70.4
Employment-to-population ratio (%)	76.6	62.8	56.9	82.4	31.7	69.5
Employment	4,270	3,685	1,356	6,054	544	7,954
<i>By education (% distribution)</i>						
Completed primary	43.2	34.9	39.9	38.1	52.3	39.4
Completed secondary	37.9	39.3	52.4	36.7	24.2	38.5
Tertiary (first stage or completed)	18.9	25.8	7.8	25.2	23.5	22.1
<i>By employment status (% distribution)</i>						
Employees	83.9	80.7	91.6	84.3	38.7	82.4
Employers	5.4	4.9	1.0	4.8	19.5	5.1
Own-account workers	6.8	7.6	5.1	5.8	27.5	7.2
Contributing family workers	3.9	6.9	2.4	5.1	14.4	5.3
<i>By economic sector (% distribution)</i>						
Agriculture, forestry and fishery	4.6	0.2	1.7	2.1	9.6	2.6
Industry	17.7	4.4	17.8	10.3	9.3	11.5
Services	77.7	95.4	80.5	87.6	81.1	85.9
<i>By occupation (% distribution)</i>						
Managers	6.3	10.9	2.0	9.5	12.6	8.4
Professionals	9.9	12.9	7.0	11.8	16.9	11.3
Technicians and associate professionals	14.5	11.9	6.1	15.8	3.7	13.3
Clerical support workers	3.1	15.2	7.9	9.1	6.8	8.7
Service and sales workers	17.3	36.4	31.6	25.0	25.4	26.1
Skilled agricultural, forestry & fishery workers	6.9	0.2	4.3	3.1	9.6	3.8
Craft and related trades workers	17.2	3.8	13.4	10.0	16.9	11.0
Plant and machine operators and assemblers	7.2	1.7	5.8	4.7	1.3	4.7
Elementary occupations	17.6	6.9	21.9	11.1	6.8	12.7
Average actual hours of work per week	39.7	37.1	39.5	38.6	34.3	38.5
Informal employment rate (%)	16.8	14.9	25.5	12.2	33.6	15.9
Unemployment rate (%)	1.6	0.9	3.5	0.9	-	1.3
Youth unemployment rate, aged 15-24 (%)	4.7	1.7	3.5	-	-	3.5
Composite rate of labour underutilization (LU4) (%)	4.2	4.3	5.1	1.0	-	4.2
Youth NEET rate, aged 15-24 (%)	8.6	16.9	12.6	-	-	12.6
Time-related underemployment rate (%)	0.6	0.2	1.7	0.1	-	0.4
Average monthly wages, employees	\$ 1,565	\$ 1,490	\$ 1,236	\$ 1,617	\$ 1,251	\$ 1,531.00

Note: Time-related underemployment rate is based on less than 35 actual hours of work per week.



Table A.4.2. Key indicators of the labour market (KILM) by region, Cook Islands, 2019

	Rarotonga	Outer Islands
Labour force participation rate (%)	74.0	60.4
Employment-to-population ratio (%)	73.3	59.0
Employment	6,173	1,781
<i>By education (% distribution)</i>		
Completed primary	34.1	57.5
Completed secondary	40.0	33.7
Tertiary (first stage or completed)	25.9	8.8
<i>By employment status (% distribution)</i>		
Employees	84.6	75.0
Employers	5.2	5.0
Own-account workers	5.3	13.8
Contributing family workers	5.0	6.3
<i>By economic sector (% distribution)</i>		
Agriculture, forestry and fishery	2.3	3.7
Industry	12.1	9.4
Services	85.7	86.8
<i>By occupation (% distribution)</i>		
Managers	9.7	4.0
Professionals	12.2	8.4
Technicians and associate professionals	13.2	13.6
Clerical support workers	9.1	7.5
Service and sales workers	27.5	21.4
Skilled agricultural, forestry & fishery workers	3.5	4.6
Craft and related trades workers	9.4	16.8
Plant and machine operators and assemblers	4.2	6.2
Elementary occupations	11.3	17.4
Average actual hours of work per week	39.5	35.1
Informal employment rate (%)	15.3	18.1
Unemployment rate (%)	0.9	2.4
Youth unemployment rate, aged 15-24 (%)	1.9	10.3
Composite rate of labour underutilization (%)	3.2	7.7
Youth NEET rate, aged 15-24 (%)	9.0	23.5
Time-related underemployment rate (%)	0.5	0.0
Average monthly wages, employees	\$ 1,667	\$ 1,105

Note: Time-related underemployment rate is based on less than 35 actual hours of work per week.

POPULATION

Table A.4.3. Population by sex, region and age group, Cook Islands, 2019

	Male	Female	Rarotonga	Outer Islands	Total
Total population					
<i>By 5-year age groups</i>					
0-4	612	491	733	370	1,103
5-9	747	570	824	493	1,317
10-14	792	620	881	531	1,412
15-19	621	678	929	370	1,299
20-24	609	476	863	222	1,085
25-29	434	465	742	157	899
30-34	411	482	721	172	893
35-39	432	446	734	144	878
40-44	422	430	705	147	852
45-49	444	549	667	326	993
50-54	580	474	786	268	1,054
55-59	482	517	665	334	999
60-64	431	346	487	290	777
65+	710	1,006	1,124	592	1,716
Total	7,728	7,549	10,861	4,416	15,277
Population distribution (%)					
<i>By 5-year age groups</i>					
0-4	7.9	6.4	9.5	4.8	14.3
5-9	9.7	7.4	10.7	6.4	17.0
10-14	10.2	8.0	11.4	6.9	18.3
15-19	8.0	8.8	12.0	4.8	16.8
20-24	7.9	6.2	11.2	2.9	14.0
25-29	5.6	6.0	9.6	2.0	11.6
30-34	5.3	6.2	9.3	2.2	11.6
35-39	5.6	5.8	9.5	1.9	11.4
40-44	5.5	5.6	9.1	1.9	11.0
45-49	5.7	7.1	8.6	4.2	12.8
50-54	7.5	6.1	10.2	3.5	13.6
55-59	6.2	6.7	8.6	4.3	12.9
60-64	5.6	4.5	6.3	3.8	10.1
65+	9.2	13.0	14.5	7.7	22.2
Total	100.0	100.0	100.0	100.0	100.0



Table A.4.4. Population by sex and region, Cook Islands, 2019

	Male	Female	Total
Total population			
Rarotonga	5,460	5,401	10,861
Southern Group	1,679	1,596	3,275
Aitutaki	933	899	1,833
Mangaia	241	228	469
Atiu	196	205	401
Mauke	190	152	342
Mitiaro	120	111	230
Northern Group	588	553	1,141
Pukapuka	246	235	481
Manihiki	221	205	426
Penhryn	122	113	234
Total	7,728	7,549	15,277
Population distribution (%)			
Rarotonga	70.7	71.5	71.1
Southern Group	21.7	21.1	21.4
Aitutaki	12.1	11.9	12.0
Mangaia	3.1	3.0	3.1
Atiu	2.5	2.7	2.6
Mauke	2.5	2.0	2.2
Mitiaro	1.6	1.5	1.5
Northern Group	7.6	7.3	7.5
Pukapuka	3.2	3.1	3.2
Manihiki	2.9	2.7	2.8
Penhryn	1.6	1.5	1.5
Total	100.0	100.0	100.0



Table A.4.5. Working age population by sex, region, age and educational attainment, Cook Islands, 2019

	Male	Female	Rarotonga	Outer Islands	Total
Working-age population, aged 15+	5,576	5,869	8,423	3,022	11,445
<i>By age group</i>					
15-24	1,230	1,154	1,791	593	2,384
25-34	844	948	1,463	329	1,792
35-44	854	876	1,438	292	1,730
45-54	1,024	1,023	1,453	594	2,047
55-64	914	862	1,152	624	1,776
65+	710	1,006	1,124	592	1,716
<i>By education attainment</i>					
Primary or less	300	117	269	148	417
Secondary	3,230	2,653	4,362	1,521	5,883
Tertiary	808	949	1,600	157	1,757
Working-age population distribution (%)					
<i>By age group</i>					
15-24	22.1	19.7	21.3	19.6	20.8
25-34	15.1	16.2	17.4	10.9	15.7
35-44	15.3	14.9	17.1	9.7	15.1
45-54	18.4	17.4	17.3	19.7	17.9
55-64	16.4	14.7	13.7	20.7	15.5
65+	12.7	17.1	13.3	19.6	15.0
<i>By education attainment</i>					
Primary or less	6.9	3.1	4.3	8.1	5.2
Secondary	74.5	71.3	70.0	83.3	73.0
Tertiary	18.6	25.5	25.7	8.6	21.8



LABOUR FORCE

Table A.4.6. Labour force and labour force participation rate, by sex, region and age group, Cook Islands, 2019

	Male	Female	Rarotonga	Outer Islands	Total
Labour force	4,338	3,718	6,231	1,826	8,056
<i>By age group</i>					
15-24	842	562	1,150	254	1,404
25-34	802	828	1,373	257	1,630
35-44	769	700	1,230	238	1,469
45-54	928	859	1,288	499	1,787
55-64	698	524	819	404	1,223
65+	299	246	371	173	544
Labour force participation rate (%)					
<i>By age group</i>					
15-24	68.5	48.7	64.2	42.8	58.9
25-34	95.0	87.3	93.9	78.1	91.0
35-44	90.1	79.9	85.5	81.5	84.9
45-54	90.6	84.0	88.6	84.0	87.3
55-64	76.4	60.8	71.1	64.7	68.9
65+	42.1	24.5	33.0	29.2	31.7

Table A.4.7. Labour force and labour force distribution rate (%) by sex, region, educational attainment, Cook Islands, 2019

	Male	Female	Rarotonga	Outer Islands	Total
Labour force					
<i>By education attainment</i>					
Primary or less	300	117	269	148	417
Secondary	3,230	2,653	4,362	1,521	5,883
Tertiary	808	949	1,600	157	1,757
Labour force distribution (%)					
<i>By education attainment</i>					
Primary or less	6.9	3.1	4.3	8.1	5.2
Secondary	74.5	71.3	70.0	83.3	73.0
Tertiary	18.6	25.5	25.7	8.6	21.8
<hr/>					
Labour force	Male	Female			
<i>By education attainment</i>					
Less than primary	0	0			
Completed primary	1,880	1,317			
Completed secondary	1,650	1,452			
Tertiary (first stage or completed)	808	949			



Table A.4.8. Labour force and labour force participation rate (%), by sex and region, Cook Islands, 2019

	Male	Female	Total
Labour force			
Rarotonga	3,358	2,873	6,231
Southern Group	750	673	1,422
Aitutaki	373	391	765
Mangaia	142	109	251
Atiu	78	72	150
Mauke	56	45	101
Mitiaro	100	55	156
Northern Group	231	173	403
Pukapuka	85	56	140
Manihiki	107	78	185
Penhryn	39	39	78
Total	4,338	3,718	8,056
Labour force participation rate (%)			
Rarotonga	81.3	67.0	74.0
Southern Group	68.7	54.0	60.9
Aitutaki	69.0	55.9	61.6
Mangaia	75.9	61.2	69.0
Atiu	53.8	46.2	49.8
Mauke	47.1	35.4	41.1
Mitiaro	100.0	64.7	84.3
Northern Group	65.4	52.1	58.9
Pukapuka	65.9	38.6	51.1
Manihiki	77.5	62.4	70.3
Penhryn	45.9	62.9	52.7
Total	77.8	63.4	70.4



EMPLOYMENT

Table A.4.9. Employment and employment-to-population ratio (%) by sex, region and age group, Cook Islands, 2019

	Male	Female	Rarotonga	Outer Islands	Total
Employment	4,270	3,685	6,173	1,781	7,954
<i>By age group</i>					
15-24	803	552	1,128	228	1,356
25-34	802	822	1,373	250	1,623
35-44	769	693	1,230	232	1,462
45-54	905	847	1,258	494	1,752
55-64	693	524	813	404	1,217
65+	299	246	371	173	544
Employment-to-population ratio (%)	76.6	62.8	73.3	58.9	69.5
<i>By age group</i>					
15-24	65.3	47.8	63.0	38.5	56.9
25-34	95.0	86.7	93.9	76.0	90.6
35-44	90.1	79.1	85.5	79.5	84.5
45-54	88.4	82.8	86.6	83.2	85.6
55-64	75.8	60.8	70.6	64.7	68.5
65+	42.1	24.5	33.0	29.2	31.7

Table A.4.10.1. Employment and Employment-to-Population ratio (%) by age and region, male

Male	Region						Total
	Rarotonga		Southern Group		Northern Group		
Age group	No.	%	No.	%	No.	%	
15-24	666	70.7	101	49.8	36	42.4	803
25-34	679	95.9	89	93.7	34	81.0	802
35-44	656	89.5	92	100.0	21	72.4	769
45-54	654	87.3	179	88.2	72	100.0	905
55-64	438	81.0	199	68.6	55	66.3	693
65+	220	47.8	79	37.8	0	0.0	299
Total	3,312	80.2	740	67.8	218	61.8	4,270



Table A.4.10.2. Employment and Employment-to-Population ratio (%) by age and region, female

Female Age group	Region						Total
	Rarotonga		Southern Group		Northern Group		
	No.	%	No.	%	No.	%	
15-24	462	54.4	77	34.2	13	16.5	552
25-34	694	91.8	95	67.9	32	61.5	822
35-44	574	81.4	92	76.0	27	55.1	693
45-54	604	85.8	199	80.9	44	60.3	847
55-64	375	61.3	126	59.2	24	64.9	524
65+	152	22.9	76	25.3	18	42.9	246
Total	2,861	66.7	666	53.5	158	47.6	3,685

Table A.4.10.3. Employment and Employment-to-Population ratio (%) by age and region, total

Total population Age group	Region						Total
	Rarotonga		Southern Group		Northern Group		
	No.	%	No.	%	No.	%	
15-24	1,128	63.0	179	41.8	49	29.9	1,356
25-34	1,373	93.9	184	78.3	66	70.2	1,623
35-44	1,230	85.5	184	86.4	48	61.5	1,462
45-54	1,258	86.6	378	84.2	116	80.6	1,752
55-64	813	70.6	325	64.6	79	65.8	1,217
65+	371	33.0	155	30.5	18	21.7	544
Total	6,173	73.3	1,406	60.2	375	54.8	7,954



Table A.4.11. Employment by sex, region, status in employment and occupation, Cook Islands, 2019

	Male	Female	Rarotonga	Outer Islands	Total
Employment, aged 15+	4,270	3,685	6,173	1,781	7,954
<i>By status of employment (% distribution)</i>					
Employees	83.9	80.7	84.6	75.0	82.4
Employers	5.4	4.9	5.2	5.0	5.1
Own-account workers	6.8	7.6	5.3	13.8	7.2
Contributing family workers	3.9	6.9	5.0	6.3	5.3
<i>By occupation (% distribution)</i>					
Managers	6.3	10.9	9.7	4.0	8.4
Professionals	9.9	12.9	12.2	8.4	11.3
Technicians and associate professionals	14.5	11.9	13.2	13.6	13.3
Clerical support workers	3.1	15.2	9.1	7.5	8.7
Service and sales workers	17.3	36.4	27.5	21.4	26.1
Skilled agricultural, forestry & fishery workers	6.9	0.2	3.5	4.6	3.8
Craft and related trades workers	17.2	3.8	9.4	16.8	11.0
Plant and machine operators and assemblers	7.2	1.7	4.2	6.2	4.7
Elementary occupations	17.6	6.9	11.3	17.4	12.7

Table A.4.12. Status in employment by sex and age, Cook Islands, 2019

Age	Status in employment - main job and sex									
	Employees		Employers		Own-account worker		Contributing family workers		Total	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
15-24	731	511	13		59	10		32	803	552
25-34	751	763	14	11	22	13	14	34	802	822
35-44	692	604	41	42	23	18	13	29	769	693
45-54	803	681	39	55	28	86	35	25	905	847
55-64	473	336	58	28	101	60	60	101	693	524
65+	133	77	63	43	57	93	45	33	299	246

Table A.4.13. Status in employment by sex and region, Cook Islands, 2019

Status in employment - main job	Rarotonga		Southern Group		Northern Group		Total	
	Male	Female	Male	Female	Male	Female	Male	Female
1 - Employees	2,800	2,420	575	432	208	120	3,583	2,972
2 - Employers	187	132	42	47			229	179
3 - Own-account workers	184	140	106	110		29	290	280
5 - Contributing family workers	141	168	17	77	9	8	168	253

Table A.4.14. Employment by sex, region and economic sector, Cook Islands, 2019

	Male	Female	Rarotonga	Outer Islands	Total
Employment, aged 15+	4,270	3,685	6,173	1,781	7,954
<i>By economic sector (% distribution)</i>					
Agriculture, forestry and fishery					
A - Agriculture, forestry and fishing	4.6	0.2	2.3	3.7	2.6
Industry					
B - Mining and quarrying	0.3	0.3	0.4	0.0	0.3
C - Manufacturing	5.1	2.3	4.3	2.1	3.8
D - Electricity, gas, steam and air conditioning supply	1.9	1.1	1.3	2.6	1.6
E - Water supply; sewerage, waste management and remediation activities	1.2	0.0	0.6	0.7	0.6
F - Construction	9.1	0.6	5.5	4.1	5.2
Services					
G - Wholesale and retail trade; repair of motor vehicles and motorcycles	14.3	22.5	18.7	16.0	18.1
H - Transportation and storage	8.2	5.5	7.0	6.6	6.9
I - Accommodation and food service activities	16.3	24.1	21.6	14.2	19.9
J - Information and communication	2.6	2.7	2.8	2.1	2.6
K - Financial and insurance activities	0.7	3.8	2.5	1.0	2.1
M - Professional, scientific and technical activities	2.1	2.6	3.0	0.0	2.3
N - Administrative and support service activities	4.5	3.3	4.8	1.0	3.9
O - Public administration and defence; compulsory social security	21.5	12.8	12.6	34.3	17.5
P - Education	2.5	7.6	4.2	7.2	4.9
Q - Human health and social work activities	1.1	6.3	3.8	2.5	3.5
R - Arts, entertainment and recreation	0.3	0.7	0.5	0.2	0.5
S - Other service activities	1.5	1.2	1.7	0.4	1.4
T - Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use	1.7	2.3	2.3	0.8	2.0
U - Activities of extraterritorial organisations and bodies	0.2	0.2	0.2	0.0	0.2
X - Not elsewhere classified	0.3	0.0	0.0	0.7	0.2



Table A.4.15. Employment by occupation, by sex and region, Cook Islands, 2019

Occupation - main job	Rarotonga		Southern Group		Northern Group		Total	
	Male	Female	Male	Female	Male	Female	Male	Female
1 - Managers	215	383	44	12	10	6	269	400
2 - Professionals	385	364	30	101	7	12	423	477
3 - Technicians and associate profession	472	344	110	64	37	32	618	440
4 - Clerical support workers	123	438	11	95	0	27	134	561
5 - Service and sales workers	617	1,079	99	250	22	10	738	1,339
6 - Skilled agricultural, forestry	218	0	57	7	17	0	293	7
7 - Craft and related trades workers	520	58	198	45	18	38	736	140
8 - Plant and machine operators	216	43	74	21	16	0	306	64
9 - Elementary occupations	546	152	116	71	91	33	753	256

Table A.4.16. Employment by educational attainment and occupation, Cook Islands, 2019

Occupation (ISCO-08) - main job	Educational attainment							
	Primary or less		Secondary		Tertiary		Total	
	No.	%	No.	%	No.	%	No.	%
1 - Managers	0	0	321	5.5	348	19.8	669	8.4
2 - Professionals	11	2.9	318	5.5	570	32.4	899	11.3
3 - Technicians and associate professionals	27	6.7	727	13	305	17.3	1,058	13.3
4 - Clerical support workers	7	1.7	532	9.2	156	8.9	695	8.7
5 - Service and sales workers	80	20	1,756	30	241	13.7	2,078	26.1
6 - Skilled agricultural, forestry and fishery workers	38	9.3	232	4	30	1.7	300	3.8
7 - Craft and related trades workers	35	8.6	764	13	78	4.4	876	11
8 - Plant and machine operators, and assemblers	39	9.7	331	5.7	0	0	370	4.7
9 - Elementary occupations	166	41	813	14	29	1.7	1,008	12.7
Total	403	100	5,795	100	1,757	100	7,954	100

Table A.4.17. Employment by status and economic sector, Cook Islands, 2019

Economic activity (ISIC Rev. 4) - main job <i>Agriculture, forestry and fishery</i>	Status in employment													
	Employees			Employers			Own-account workers			Contributing family workers			Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
<i>Industry</i>														
A - Agriculture, forestry and fishing	62	1.0	13	3.1	88	15.4	42	10.0	205	2.6				
B - Mining and quarrying	23	0.4	0	0.0	0	0.0	0	0.0	23	0.3				
C - Manufacturing	228	3.5	47	11.5	15	2.7	13	3.1	304	3.8				
D - Electricity, gas, steam and air conditioning supply	104	1.6	21	5.1	0	0.0	0	0.0	124	1.6				
E - Water supply; sewerage, waste management and remediation activities	50	0.8	0	0.0	0	0.0	0	0.0	50	0.6				
F - Construction	349	5.3	56	13.7	9	1.6	0	0.0	413	5.2				
<i>Services</i>														
G - Wholesale and retail trade; repair of motor vehicles and motorcycles	939	14.3	66	16.1	191	33.6	241	57.2	1,437	18.1				
H - Transportation and storage	512	7.8	21	5.2	18	3.1	0	0.0	551	6.9				
I - Accommodation and food service activities	1,326	20.2	91	22.3	98	17.3	70	16.5	1,585	19.9				
J - Information and communication	178	2.7	6	1.4	12	2.0	12	2.8	207	2.6				
K - Financial and insurance activities	154	2.4	15	3.6	0	0.0	0	0.0	169	2.1				
M - Professional, scientific and technical activities	69	1.1	63	15.4	53	9.4	0	0.0	185	2.3				
N - Administrative and support service activities	210	3.2	10	2.6	62	10.9	31	7.3	314	3.9				
O - Public administration and defence; compulsory social security	1,391	21.2	0	0.0	0	0.0	0	0.0	1,391	17.5				
P - Education	387	5.9	0	0.0	0	0.0	0	0.0	387	4.9				
Q - Human health and social work activities	262	4.0	0	0.0	19	3.3	0	0.0	281	3.5				
R - Arts, entertainment and recreation	23	0.4	0	0.0	0	0.0	13	3.1	36	0.5				
S - Other service activities	110	1.7	0	0.0	0	0.0	0	0.0	110	1.4				
T - Activities of households as employers	157	2.4	0	0.0	0	0.0	0	0.0	157	2.0				
U - Activities of extraterritorial organisations and bodies	12	0.2	0	0.0	0	0.0	0	0.0	12	0.2				
X - Not elsewhere classified	9	0.1	0	0.0	4	0.7	0	0.0	13	0.2				
Total	6,556	100	408	100	569	100	421	100	7,954	100				

Table A.4.18. Employment by status and occupation, Cook Islands, 2019

Economic activity (ISIC Rev. 4) - main job	Occupation										Total
	Managers	Professionals	Technicians and associate professionals	Clerical support workers	Service and sales workers	Skilled agricultural, forestry and fishery workers	Craft and related trades workers	Plant and machine operators, and assemblers	Elementary occupations	Total	
A - Agriculture, forestry and fishing	13	0	0	0	0	167	0	0	25	205	
B - Mining and quarrying	0	0	0	0	10	0	0	13	0	23	
C - Manufacturing	29	19	22	0	21	0	152	45	15	304	
D - Electricity, gas, steam and air conditioning supply	33	0	23	19	0	0	50	0	0	124	
E - Water supply; sewerage, waste management and remediation activities	0	0	12	0	0	0	0	39	0	50	
F - Construction	28	12	0	8	0	0	214	51	100	413	
G - Wholesale and retail trade; repair of motor vehicles and motorcycles	123	41	14	49	757	56	272	24	102	1,437	
H - Transportation and storage	16	44	81	52	151	0	28	76	105	551	
I - Accommodation and food service activities	144	66	228	171	613	14	6	35	307	1,585	
J - Information and communication	29	34	75	18	20	0	32	0	0	207	
K - Financial and insurance activities	32	23	38	76	0	0	0	0	0	169	
M - Professional, scientific and technical activities	0	124	27	26	0	0	8	0	0	185	
N - Administrative and support service activities	38	0	30	22	95	0	39	0	90	314	
O - Public administration and defence; compulsory social security	158	170	375	194	155	20	76	87	155	1,391	
P - Education	7	261	0	20	93	0	0	0	5	387	
Q - Human health and social work activities	0	83	98	16	64	0	0	0	19	281	
R - Arts, entertainment and recreation	0	4	0	13	0	0	0	0	20	36	
S - Other service activities	5	19	35	12	28	0	0	0	9	110	
T - Activities of households as employers; undifferentiated goods- and services-producing activities of households for own use	0	0	0	0	72	38	0	0	47	157	
U - Activities of extraterritorial organisations and bodies	12	0	0	0	0	0	0	0	0	12	
X - Not elsewhere classified	0	0	0	0	0	4	0	0	9	13	
Total	669	899	1,058	695	2,078	300	876	370	1,008	7,954	



Table A.4.19. Male employment in top 15 occupations for main activity, Cook Islands, 2019

Occupation (ISCO-08), 2-digit level - main job	Male	
	No.	%
54 - Protective services workers	296	6.9
92 - Agricultural, forestry and fishery labourers	258	6.0
83 - Drivers and mobile plant operators	254	5.9
71 - Building and related trades workers, excluding electricians	238	5.6
33 - Business and administration associate professionals	237	5.6
93 - Labourers in mining, construction, manufacturing and transport	222	5.2
51 - Personal service workers	217	5.1
52 - Sales workers	211	4.9
61 - Market-oriented skilled agricultural workers	206	4.8
96 - Refuse workers and other elementary workers	189	4.4
72 - Metal, machinery and related trades workers	176	4.1
11 - Chief executives, senior officials and legislators	157	3.7
34 - Legal, social, cultural and related associate professionals	153	3.6
74 - Electrical and electronic trades workers	145	3.4
75 - Food processing, wood working, garment and other craft and related trades workers	139	3.3

Table A.4.20. Female employment in top 15 occupations for main activity, Cook Islands, 2019

Occupation (ISCO-08), 2-digit level - main job	Female	
	No.	%
52 - Sales workers	658	17.9
51 - Personal service workers	515	14.0
42 - Customer services clerks	280	7.6
12 - Administrative and commercial managers	193	5.2
33 - Business and administration associate professionals	189	5.1
23 - Teaching professionals	180	4.9
24 - Business and administration professionals	175	4.7
53 - Personal care workers	154	4.2
41 - General and keyboard clerks	151	4.1
32 - Health associate professionals	139	3.8
43 - Numerical and material recording clerks	122	3.3
11 - Chief executives, senior officials and legislators	108	2.9
34 - Legal, social, cultural and related associate professionals	104	2.8
91 - Cleaners and helpers	104	2.8
14 - Hospitality, retail and other services managers	80	2.2



Table A.4.21. Youth employment in top 15 occupations for main activity

Occupation (ISCO-08), 2-digit level - main job	Youth total	
	No.	%
52 - Sales workers	227	16.7
93 - Labourers in mining, construction, manufacturing and transport	117	8.6
92 - Agricultural, forestry and fishery labourers	96	7.1
54 - Protective services workers	87	6.4
51 - Personal service workers	71	5.2
83 - Drivers and mobile plant operators	70	5.2
71 - Building and related trades workers, excluding electricians	66	4.9
34 - Legal, social, cultural and related associate professionals	51	3.8
42 - Customer services clerks	47	3.5
61 - Market-oriented skilled agricultural workers	44	3.2
53 - Personal care workers	43	3.2
24 - Business and administration professionals	37	2.7
41 - General and keyboard clerks	36	2.7
75 - Food processing, wood working, garment and other craft and related trades workers	36	2.7
91 - Cleaners and helpers	34	2.5

Table A.4.22. Employed population with a secondary job, by sex and status in employment, Cook Islands, 2019

Status in employment of secondary job	Region and Sex							
	Rarotonga		Southern Group		Northern Group		Total	
	Male	Female	Male	Female	Male	Female	Male	Female
Employer	19	7	11				30	7
Employee	285	166	53	34	13	6	350	206
Self-employed (without any employees)	116	117	103	20	9	7	229	143
Other	21	22	4	25		4	25	52



Table A.4.23. Employed population with a secondary job, by sex, age and status in employment, Cook Islands, 2019

Status in employment of secondary job	Age and Sex							
	15-24		25-34		35-44		45-54	
	Male	Female	Male	Female	Male	Female	Male	Female
Employer	.	.	.	.	.	.	26	.
Employee	157	33	59	26	42	63	43	58
Self-employed (without any employees)	17	13	7	10	39	27	107	30
Other	21	11	.	8	.	22	.	11

Status in employment of secondary job	Age and Sex					
	55-64		65+		Total	
	Male	Female	Male	Female	Male	Female
Employer	.	.	.	.	.	.
Employee	4	7	.	.	30	7
Self-employed (without any employees)	50	10	.	15	350	206
Other	59	63	.	.	229	143

WORKING HOURS

Table A.4.24. Average hours actually worked, by sex, region and age, Cook Islands, 2019

	Male	Female	Rarotonga	Outer Islands	Total
Average actual hours in all economic activities	39.7	37.1	39.5	35.1	38.5
- At main job	38.1	35.7	38	33.3	37
- At secondary jobs	12.3	13.6	12.7	13.2	12.8
	15-24	25-54	55-64	65+	Total
Average actual hours in all economic activities	39.5	39.1	36.2	34.3	38.5
- At main job	37.4	37.7	34.3	34.1	37
- At secondary jobs	11.6	13.4	13	10	12.8

Table A.4.25. Average hours actually worked at main job, by sex, region and occupation, Cook Islands, 2019

Occupation (ISCO-08) - main job	Male	Female	Rarotonga	Southern Group	Northern Group	Total
1 - Managers	44.3	40.5	42.4	37.3	40.3	42
2 - Professionals	37.4	38.6	38.5	36.1	35.4	38.1
3 - Technicians and associate professionals	42.4	36.7	41.3	36.1	34.8	40
4 - Clerical support workers	40.7	37.1	38.5	35.1	34.1	37.8
5 - Service and sales workers	40	36.5	38.7	31.8	43	37.8
6 - Skilled agricultural, forestry and fishery workers	36.9	40	36.5	38.7	36.9	37
7 - Craft and related trades workers	39.9	33.3	40	37.1	38.2	39.1
8 - Plant and machine operators, and assemblers	41.1	39.9	42.8	36.5	35	41
9 - Elementary occupations	36.4	32.8	37	32.4	31.7	35.6
Total	39.7	37.1	39.5	35	35.4	38.5

Table A.4.26. Employed persons with excessive hours of work, by sex, region and occupation, Cook Islands, 2019

Occupation (ISCO-08) - main job	Male	Female	Rarotonga	Southern Group	Northern Group	Total
1 - Managers	91	68	153	0	6	159
2 - Professionals	41	43	84	0	0	84
3 - Technicians and associate professionals	125	29	145	5	4	154
4 - Clerical support workers	31	22	50	4	0	53
5 - Service and sales workers	122	73	164	22	9	195
6 - Skilled agricultural, forestry and fishery workers	20	0	0	20	0	20
7 - Craft and related trades workers	92	7	81	10	7	99
8 - Plant and machine operators, and assemblers	53	14	67	0	0	67
9 - Elementary occupations	32	29	61	0	0	61
Total	608	285	806	61	26	893

Note: Excessive hours of work is based more than 48 actual hours of work per week.



INCOME FROM EMPLOYMENT

Table A.4.27. Average monthly income of the employees in main job (in New Zealand dollars) by sex, region and educational attainment, Cook Islands, 2019

Educational attainment	Rarotonga		Outer Islands		Total	
	Male	Female	Male	Female	Male	Female
Primary or less	\$1,558	\$923	\$1,122	\$1,462	\$1,436	\$1,082
Secondary	\$1,694	\$1,451	\$1,077	\$1,035	\$1,504	\$1,347
Tertiary	\$1,921	\$2,018	\$1,809	\$1,563	\$1,916	\$1,969
Total	\$1,731	\$1,594	\$1,099	\$1,114	\$1,565	\$1,490

Educational attainment	Male	Female	Rarotonga	Southern Group	Northern Group	Total
Secondary	\$1,504	\$1,347	\$1,582	\$1,084	\$995	\$1,435
Tertiary	\$1,916	\$1,969	\$1,973	\$1,571	\$1,751	\$1,946
Total	\$1,565	\$1,490	\$1,667	\$1,128	\$1,045	\$1,531

Table A.4.28. Average monthly income of the employees in main job (in New Zealand dollars) by sex, region and age group, Cook Islands, 2019

	Rarotonga		Outer Islands		Total	
	Male	Female	Male	Female	Male	Female
15-24	\$1,233	\$1,400	\$947	\$819	\$1,181	\$1,318
25-34	\$1,801	\$1,687	\$1,208	\$956	\$1,717	\$1,567
35-44	\$1,910	\$1,711	\$1,211	\$1,210	\$1,779	\$1,609
45-54	\$1,831	\$1,672	\$1,072	\$1,173	\$1,534	\$1,540
55-64	\$2,245	\$1,511	\$1,129	\$1,203	\$1,757	\$1,410
65+	\$1,551	\$747	\$1,096	\$1,360	\$1,441	\$952
Total	\$1,731	\$1,594	\$1,099	\$1,114	\$1,565	\$1,490



Table A.4.29. Average monthly income (in New Zealand dollars) from employment in secondary job, Cook Islands, 2019

	Male	Female	Rarotonga	Outer Islands	Total
Average monthly wages in secondary job of employees	\$1,670	\$2,212	\$2,085	\$936	\$1,890
<i>By economic sector</i>					
Agriculture, forestry and fishery					
Industry	\$1,546		\$1,994	\$780	\$1,546
Services	\$1,691	\$2,212	\$2,088	\$969	\$1,913
<i>By occupation</i>					
Managers		\$2,626	\$2,626		\$2,626
Professionals	\$1,831	\$607	\$1,414	\$100	\$1,246
Technicians and associate professionals	\$2,843	\$1,958	\$2,698	\$1,281	\$2,521
Clerical support workers	\$489	\$3,655	\$2,951	\$250	\$2,699
Service and sales workers	\$1,920	\$3,130	\$2,269	\$1,953	\$2,224
Skilled agricultural, forestry and fishery workers					
Craft and related trades workers	\$608		\$549	\$780	\$608
Plant and machine operators and assemblers	\$1,143	\$721	\$1,101	\$551	\$881
Elementary occupations	\$514	\$2,018	\$1,528	\$352	\$1,258
<i>By education attainment</i>					
Primary or less	\$200	\$900	\$200	\$900	\$432
Secondary	\$1,778	\$1,987	\$2,084	\$939	\$1,848
Tertiary	\$1,354	\$2,737	\$2,315		\$2,315
<i>By status of employment</i>					
Employees	\$1,688	\$2,307	\$2,137	\$799	\$1,946
Employers	\$1,440	\$800	\$1,440	\$800	\$1,216
Own-account workers	\$3,988	\$900		\$2,090	\$2,090
Contributing family workers	\$1,032		\$1,032		\$1,032



Table A.4.30. Average monthly income (in New Zealand dollars) from employment in main job by sex, region and age, Cook Islands, 2019

Working population group	age	Rarotonga		Outer Islands		Total	
		Male	Female	Male	Female	Male	Female
15-24		\$1,233	\$1,400	\$947	\$819	\$1,181	\$1,318
25-34		\$1,801	\$1,687	\$1,208	\$956	\$1,717	\$1,567
35-44		\$1,910	\$1,711	\$1,211	\$1,210	\$1,779	\$1,609
45-54		\$1,831	\$1,672	\$1,072	\$1,173	\$1,534	\$1,540
55-64		\$2,245	\$1,511	\$1,129	\$1,203	\$1,757	\$1,410
65+		\$1,551	\$747	\$1,096	\$1,360	\$1,441	\$952
Total		\$1,731	\$1,594	\$1,099	\$1,114	\$1,565	\$1,490

UNEMPLOYMENT

Table A.4.31. Unemployment and unemployment rate (%) (LU1) by sex, region and age, Cook Islands, 2019

	Region and Sex							
	Rarotonga		Southern Group		Northern Group		Total	
	Male	Female	Male	Female	Male	Female	Male	Female
Unemployment								
15-24	22	.	4	.	12	9	39	9
25-64	24	12	5	7	.	6	29	24
Unemployment Rate (%)								
15-24	3.3	.	4.2	.	25.7	41.2	4.7	1.7
25-64	1.0	0.5	1.0	1.3	.	4.7	0.9	0.8

Table A.4.32. Unemployment and unemployment rate (%) (LU1) by sex, region and educational attainment, Cook Islands, 2019

Unemployment	Male	Female	Rarotonga	Outer Islands	Total
Primary or less	4	9	0	14	14
Secondary	64	24	58	31	88
Tertiary	0	0	0	0	0
Unemployment rate (%)					
Primary or less	1.3	7.8	0	9.5	3.4
Secondary	2.0	0.9	1.3	2.0	1.5
Tertiary	0	0	0	0	0

Table A.4.33.1. Unemployment and unemployment rate (%) (LU1) by educational attainment and age, Cook Islands, 2019

Unemployment	15-24	25-64	Total
Primary or less	14	0	14
Secondary	35	54	88
Tertiary	0	0	0
Unemployment rate (%)			
Primary or less	31.8	0	17.3
Secondary	2.8	1.3	26.3
Tertiary	0	0	0



Table A.4.33.2. Unemployment by educational attainment, age group and sex, Cook Islands, 2019

	Age and Sex					
	15-24		25-64		Total	
	Male	Female	Male	Female	Male	Female
Primary or less	4	9	.	.	4	9
Secondary	35	.	29	24	64	24

Table A.4.34. Unemployment by sex, age, region and duration of job search

	Male	Female	Rarotonga	Southern Group	Northern Group	Total
Less than 6 months	53	6	41	0	19	59
12 months or more	0	4	0	4	0	4
Not elsewhere classified	15	23	17	12	9	39

PERSONS OUTSIDE THE LABOUR FORCE AND POTENTIAL LABOUR FORCE

Table A.4.35. Persons outside the labour force: reason for not finding a job, by sex, age and region, Cook Islands, 2019

Reason for not finding a job	Male	Female	Rarotonga	Outer Islands	Total
In studies, training	22	12	13	20	33
Family / household responsibilities	0	32	27	5	32
Tired of looking for jobs, no jobs in area	3	11	0	14	14
No jobs matching skills, lacks experience	13	0	9	4	13
Retired, pensioner, other sources of income	13	0	13	0	13
Awaiting recall from previous job	10	0	10	0	10
Considered too young/old by employers	8	0	0	8	8
In agriculture / fishing for family use	0	6	0	6	6
Waiting for results of a previous search	0	3	0	3	3
Own disability, injury, illness	2	0	0	2	2
Other	16	30	30	16	46

Table A.4.36. Persons outside the labour force by sex and region, Cook Islands, 2019

Labour Force Status	Regions and Sex			
	Rarotonga		Southern Group	
	Male	Female	Male	Female
Employed	3,312	2,861	740	666
Unemployed	46	12	10	7
Outside Labour Force	774	1,418	342	573
Total	4,132	4,291	1,091	1,246
Outside Labour Force (%)	18.7	33.1	31.3	46.0

Labour Force Status	Regions and Sex			
	Northern Group		Total	
	Male	Female	Male	Female
Employed	218	158	4,270	3,685
Unemployed	12	15	68	34
Outside Labour Force	122	159	1,238	2,150
Total	353	332	5,576	5,869
Outside Labour Force (%)	34.7	47.8	22.2	36.6



Table A.4.37. Potential labour force and extended labour force by sex and region, Cook Islands, 2019

	Male	Female	Rarotonga	Outer Islands	Total
Extended labour force	4,431	3,843	6,344	1,929	8,273
Labour force	4,338	3,719	6,231	1,825	8,056
Potential labour force	93	124	113	104	217
Available potential jobseekers	18	48	45	21	66
Unavailable jobseekers	75	76	68	83	151

Table A.4.38. Labour force and Combined rate of time-related underemployment and unemployment (LU2) by sex and region, Cook Islands, 2019

	Male	Female	Rarotonga	Outer Islands	Total
Labour force	4,338	3,719	6,231	1,825	8,056
Time-related underemployment	24	7	31	0	31
Unemployment	68	34	58	44	102
LU2: Combined rate of time-related underemployment and unemployment (%)	2.1	1.1	1.4	2.4	1.7

Table A.4.39. Potential labour force and combined rate of unemployment and potential labour force (LU3) by sex and region, Cook Islands, 2019

	Male	Female	Rarotonga	Outer Islands	Total
Extended labour force	4,431	3,843	6,344	1,929	8,273
Potential labour force	94	124	113	104	217
Unemployment	68	34	58	44	102
LU3: Combined rate of unemployment and potential labour force (%)	3.7	4.1	2.7	7.7	3.9

Table A.4.40. Potential labour force and Composite measure of labour underutilization (LU4) by sex and region, Cook Islands, 2019

	Male	Female	Rarotonga	Outer Islands	Total
Extended labour force	4,431	3,843	6,344	1,929	8,273
Potential labour force	94	124	113	104	217
Unemployment	68	34	58	44	102
Time-related underemployment	24	7	31	0	31
LU4: Composite measure of labour underutilization (%)	4.2	4.3	3.2	7.7	4.2

Table A.4.41. Youth not in education, employment or training (NEET), by sex and region, Cook Islands, 2019

	Rarotonga		Southern Group		Northern Group		Total	
	Male	Female	Male	Female	Male	Female	Male	Female
Youth NEET	52	109	17	62	36	24	105	195
Youth NEET %	5.5	12.8	8.2	27.6	42.7	30.6	8.6	16.9



OWN-USE PRODUCTION AND SUBSISTENCE WORK

Table A.4.42. Own-use producers by sex, region and kind of production, Cook Islands, 2019

	Male	Female	Rarotonga	Outer Islands	Total
Gathering food such as local fruits and vegetable	2,095	1,659	2,338	1,416	3,755
Going hunting for [bush meat etc]	223	31	52	202	255
Preparing preserved food for storage	191	296	103	384	488
Preparing drinks for storage	143	113	42	214	256
Doing any construction work to build, renovate	499	104	290	312	602
Making goods for use by household	81	289	93	277	370
Doing repair or maintenance work for household	965	242	777	430	1,207
Fetching water from natural or public source	1,870	1,479	2,666	683	3,348
Collecting firewood or other product for use	493	198	247	444	691
Cleaning house, washing clothes, paying bill	3,916	5,048	6,837	2,127	8,964
Providing care, assist family member(s)	297	310	399	208	607
Looking after children aged less than 18 year	1,863	2,637	3,140	1,361	4,501

Table A.4.43. Own-use producers by age and kind of production, Cook Islands, 2019

	15-24	25-34	35-44	45-54	55-64	65+	Total
Gathering food such as local fruits and vegetable	614	410	645	856	715	515	3,755
Going hunting for [bush meat etc]	72	52	53	33	45	0	255
Preparing preserved food for storage	52	91	61	83	107	94	488
Preparing drinks for storage	39	70	33	28	49	38	256
Doing any construction work to build, renovate	73	83	101	131	117	96	602
Making goods for use by household	43	25	53	69	82	97	370
Doing repair or maintenance work for household	126	152	245	288	277	119	1,207
Fetching water from natural or public source	751	541	616	668	447	324	3,348
Collecting firewood or other product for use	159	46	132	157	135	63	691
Cleaning house, washing clothes, paying bill	1,729	1,429	1,513	1,677	1,338	1,277	8,964
Providing care, assist family member(s)	57	94	101	85	123	146	607
Looking after children aged less than 18 year	828	844	1,085	843	678	224	4,501



Table A.4.44. Subsistence food producers by age, labour force status and labour underutilization category

	15-24	25-34	35-44	45-54	55-64	65+	Total
Subsistence Farming	321	101	121	166	247	274	1,229
<i>By labour force status</i>							
Employed	19	22	40	64	65	0	210
Unemployed	35	7	6	5	6	0	59
Outside Labour Force	267	73	75	96	176	274	960
- Potential labour force	9	0	12	15	15	8	59
Subsistence food producer rates (%)	13.5	5.65	7.0	8.1	13.9	16.0	10.7

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