



REPUBLIC OF PALAU

2014 HOUSEHOLD INCOME AND EXPENDITURE SURVEY

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Foreword

It is with great pleasure to disseminate and communicate the results of the 2014 Palau Household Income and Expenditure Survey (HIES). This major accomplishment is the third of its kind to be conducted in the Republic of Palau, the last one being in 2006. The 2014 HIES is distinctly different because fieldwork was undertaken over a one-year period as opposed to the conventional two weeks of fieldwork in previous surveys. The purpose of extending the fieldwork period was to capture seasonality in expenditure and income patterns, which is a common occurrence in Palau.

While the survey collects a wealth of information and has the potential to meet many objectives, the main objectives of the survey were to: rebase the consumer price index basket; supplement data in compiling components of national accounts, balance of payment and other economic indicators; and enable further analysis of poverty in Palau. Additionally, the survey results provide useful information and indicators on the socioeconomic situation of Palauan households. This information will inform policy-makers in framing social developmental policies and in initiating financial measures for improving economic conditions of people.

This publication is a valuable resource, not only for "high-end" users but also for casual readers with general interest in the financial situation of Palauan households. The main table outputs center around income and expenditure, which are further broken down to reveal finer details, such as consumption of food and non-alcoholic beverages, alcohol beverages and tobacco, clothing and footwear.


This publication complements findings from previous surveys such as the 2012 mini census and the 2006 HIES, and other statistical publications, allowing for additional trend analysis.

The project was made possible through financial support provided by the Asian Development Bank and the United States Department of Interior. We are also grateful for the continued and valuable technical support from the Statistics for Development Division of the Secretariat of the Pacific Community.

It is extremely important to extend special appreciation to the Palauan households that participated and responded to the survey. Successful completion of the survey would not have been possible without their cooperation and contribution.

Finally, I would like to recognize the Office of Planning and Statistics, including the household enumerators, supervisors and quality control officers for the successful implementation of this project and to the several individuals who contributed to the work.

I hope the readers of this report have a productive and enlightening reading experience.



Minister Elbuchel Sadang
Ministry of Finance

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Executive summary

Key results

Palau 2014 Household Income and Expenditure Survey (all monetary amounts in USD).

Population	Unit	National	Urban	Rural
Estimated population (mid-2014)		17,581	14,334	3,247
Estimated number of households (mid-2014)		5,946	4,961	985
Expenditure				
Expenditure type				
Total cash expenditure	USD 000	85,363	72,804	12,559
Total gross home production	USD 000	2,624	1,791	833
Total imputed rents	USD 000	21,352	17,184	4,167
Total expenditure	USD 000	109,339	91,779	17,559
Expenditure category				
Final consumption expenditure	USD 000	93,607	78,584	15,022
Non-consumption expenditure	USD 000	13,300	11,080	2,220
Household investment expenditure	USD 000	2,434	2,116	318
Average annual household expenditure — cash	USD	14,360	14,680	12,750
Average annual household expenditure — total	USD	18,390	18,500	17,830
Income				
Income type				
Total net cash income	USD 000	122,536	105,995	16,541
Total net home production	USD 000	1,299	836	463
Total gifts (goods bought and home produced)	USD 000	2,665	2,191	473
Total imputed rents	USD 000	21,352	17,184	4,167
Total income in-kind from employer	USD 000	4,366	4,239	127
Total income	USD 000	152,218	130,445	21,771
Income category				
Income from employment	USD 000	99,394	87,099	12,294
Income from property	USD 000	2,227	2,084	142
Imputed rents	USD 000	21,352	17,184	4,167
Income from transfers	USD 000	26,464	21,768	4,695
Other irregular income	USD 000	2,782	2,308	474
Average annual household income — cash	USD	20,600	21,370	16,790
Average annual household income — total	USD	25,600	26,290	22,100

Household Income and Expenditure Survey — objectives and outcomes

The Palau national Household Income and Expenditure survey (HIES) was implemented over a 12-month period from November 2013 to October 2014. This report is the first generated output of the HIES and it includes information on the survey, interpretation and analysis of data, and an appendix of key expenditure and income tables.

The 2014 HIES, implemented by the Office of Planning and Statistics, and adopted a new regional standardized methodology that was developed by the Secretariat of the Pacific Community (SPC).

The main objective of the HIES was to collect household income and expenditure information and an array of socio-demographic data. HIES data:

- contribute to the revision of consumer price indices;
- contribute to the compilation of national accounts estimates; and
- provide information on the incidence of poverty in Palau.

Some 1,145 households were selected (in private dwellings and workers quarters) to participate in the survey, and the response rate was 75.8% (i.e. 869 households responded). This response rate allows for statistically significant analysis at the national, urban and rural level.

The results are summarized in five chapters, which cover population profile, expenditure analysis, income analysis and additional analysis. The results are summarized below.

Population estimates

From the 2014 HIES Palau's total population of is estimated to be 17,580 people and the total number of households is 5,946 (4,411 households in private dwellings and 1,535 in workers quarters). The total population consisted of 8,863 males (52%) and 8,717 females (49%), resulting in a sex ratio of 1.02¹. Less than one-fifth of the population resides in rural areas (18%).

An average household size of 2.9 people was estimated (3.6 for households in private dwellings and 1.06 for households in workers quarters).

Between the 2012 census and the 2014 HIES midpoint, Palau's annual population growth rate is estimated to be 0.28%.

About 30% of Palau's population is less than 20 years of age, and the national age dependency ratio is 42².

Household characteristics

About 55% of the households in Palau own their house, 21% rent and 24% live somewhere for free (no charge for rent). Looking at private dwelling households only, 75% of these own their house. There is a higher frequency of renting in urban areas (51%) than in rural areas (13%).

Two-thirds of households (63%) live in a family house detached from any other house, and 26% live in a building with two or more apartments. Most households (91%) have an indoor kitchen, and 75% use a gas stove as their main means of cooking. Almost all households (99%) are connected to the power grid and public water supply. However, 58% of households drink water from the public supply and 20% drink bottled water. At the national level, 60% of households are connected to the public sewerage system and use it as their main source of sanitation (in urban areas, 70% of households are connected to the public sewer whereas only 14% of households in rural area are connected to the public sewerage system).

¹ This is the ratio of males to females in Palau. For example, for every 100 males, there's 102 females.

² Age dependency ratio is the ratio of dependents – people younger than 15 or older than 64 – to the working-age population – those aged 15-64. Data are shown as the proportion of dependents per 100 working-age population.

In terms of communication, 72% of households are connected to a landline phone (69% in urban areas and 87% in rural areas), and 84% of the households own a mobile phone (at least one household member) and can access the mobile phone network from home. Nearly 20% of households can access the Internet from home (23% in urban areas and 6% in rural areas).

Expenditure analysis

Expenditure is broken down by category (consumption, non-consumption and investment expenditure), division (according to the classification of individual consumption according to purpose (COICOP) divisions and subcategories) and type (cash, home produced, in-kind receipts and imputed rents).

Total annual household expenditure was estimated to be USD 109 million. Of this expenditure, 86% is consumption expenditure, 12% non-consumption expenditure, and 2% investment expenditure. Urban households account for 84% of total expenditure, with rural households accounting for the remaining 16%.

In terms of expenditure type, 78% of total expenditure is cash based, 2% home produced, and 20% imputed rents. The structure of expenditure according to the type is similar in urban and rural areas.

Consumption expenditure — the main expenditure category — is mainly dedicated to “housing and utilities” (35%, mainly due to imputed rents), “food and non-alcoholic beverages” (20%), and transportation (13%). Rural and urban areas allocate a similar proportion of expenditure towards “housing and utilities” (36% in urban and 39% in rural), food (19% in urban and 23% in rural) and transportation (13% in urban and 14% in rural).

Nationally, food and non-alcoholic beverage expenditure is allocated to “bread and cereals” (22%), meat (19%), fish and seafood (14%), vegetables (12%) and other, although half of the value of the fish consumed and 40% of the value of vegetables consumed are home produced. Therefore, in term of cash expenditure, the main cash expenditure on food and non-alcoholic beverages is on bread and cereal (26%) and meat (23%), using COICOP (classification of individual consumption by purpose) divisions.

In terms of housing and utilities, the majority (65%) of expenditures are imputed rents³.

Expenditure is not evenly distributed among households, with the top 20% of the population accounting for more than 40% of the total expenditure (60% of cash expenditure). A national expenditure Gini Coefficient of 0.43 was calculated, indicating relatively unequal distribution of expenditure among Palau’s households.

Income analysis

Income is broken down into five main categories (employment, property, home production consumed, transfer, and irregular gifts and casual), subcategories (wages and salaries, business, subsistence, home production, capital, remittances, pensions, scholarships) and income type (cash, home produced, in-kind receipts, imputed and intermediate).

From the 2014 HIES, Palau’s total annual household income was estimated to be USD152 million. Employment income accounts for 65% of total income by category, followed by income from transfers (17% including remittances, social benefits and scholarships) imputed rents (14%), and capital and casual income making up the remaining 3%.

In terms of income type, 80% of total income is cash income, followed by the value of imputed rents (14%), in-kind income from employer (3%), gift received (2%) and about 1% from home production.

³ Imputed rents are owner occupier (or households that live in their dwelling for free) estimates of the amount that the household would pay if it were to rent the dwelling that they occupy. It is an economic measure of the value of the service that owner occupied households receives from living in their dwelling.

Income from employment consists mainly of wages and salaries (90%), and income from household business (8%). Subsistence activities that are market oriented (e.g. agriculture, fishing, livestock and handicrafts) account for only 1% of the income from employment. Home production for own consumption makes up the remaining 1%.

In terms of cash income, wages and salaries account for the greatest proportion (69%) of income, followed by other transfer income (21%, which includes mainly social security benefit and pensions). At a lower level, household businesses contribute 6% to the total cash income.

On average, urban households received an income of more than 20% of that of rural households. The structure of household income is slightly different when urban and rural areas are considered. Wages and salaries represent 57% of the total household income in urban areas and 44% in rural areas. Conversely, "other transfers income" (mainly social security benefits and pensions) are higher in rural areas (almost 20% of the total income) than in urban areas (16%) and of course, income from subsistence activities that are market oriented and home production for own consumption are higher in rural areas (all together representing 5% of total household income in rural areas and 1% in urban areas).

The distribution of income throughout the population demonstrates a high degree of income inequality, with the poorest 50% of households in Palau accounting for only 15% of the total household income. A national income Gini Coefficient of 0.49 was calculated, indicating relatively unequal distribution of income among households in Palau.

Section 1: Survey overview

Introduction

This report is the first generated output from the Palau 2014 Household Income and Expenditure Survey (HIES). The report provides a survey overview (including background information and objectives) and a main analysis (that includes a population profile, expenditure analysis and income analysis).

A second report has been produced to address the main methodology issues associated with the survey, focusing on key concepts and definitions; survey procedures; and survey materials used (questionnaires and classification codes).

Aside from these two reports, additional outputs will be produced in the future to address other key survey objectives, as outlined below. These shorter, specific reports will address key sectors covered in the HIES, and other key outputs produced from the survey will address economic statistics.

The Republic of Palau

The Republic of Palau became an independent nation on 1 October 1994, with the implementation of the Compact of Free Association between Palau and the United States of America. The government of Palau consists of 16 states: Kayangel, Ngerchelong, Ngaraard, Ngardmau, Ngiwal, Ngeremlengui, Ngatpang, Melekeok, Aimeliik, Ngchesar, Airai, Koror, Peleliu, Angaur, Sonsorol and Hatohobei.

Palau stretches from about 2^o to 8^o north latitude and 131^o to 135^o east longitude, and covers 189 mi² of land area, including the rock islands. The surrounding sea area includes an exclusive economic zone extending over 237,850 mi².

The capital of Palau was relocated to Ngerulmud, Melekeok, in 2006. However, Koror remains the economic center for Palau, with a land area of 7.1 mi² where two-thirds of the Palauan population resides. Koror lies just south of Babeldaob Island, which consists of 153 mi² of undulating forests, grasslands, rivers, waterfalls, wetlands, mangroves and some of the most beautiful beaches.

Babeldaob is Palau's largest island, making up 80% of the country's total land area. Babeldaob Island consists of 10 states: Ngerchelong, Ngaraard, Ngiwal, Melekeok, Ngchesar, Ngardmau, Ngeremlengui, Ngatpang, Aimeliik and Airai.

Palau is made up of more than 340 islands, with only 8 being inhabited. These are, from northeast to southwest: Kayangel, Babeldaob, Koror, Peleliu, Angaur, Sonsorol, Pulo Anna, Hatohobei and Helen's Reef. Most of the islands are volcanic, and others are raised limestone.

Palau's distance to major cities in nautical miles is as follows: Hong Kong 1,739 nm, Honolulu 4,449 nm, San Francisco 5,751 nm, Shanghai 1,679 nm, Sydney 3,319 nm, and Tokyo 1,890 nm. The Republic of Palau is nine hours ahead of Greenwich Mean Time and is in the same time zone as Japan.

Palau's economy

During the economic downturn in Palau in years 2008 and 2009, Palau's GDP fell by 3% and 12%, respectively, reflecting the world financial recession. In 2010, the economy grew by 1.3% and gathered momentum in 2011 and 2012 with a surge in tourist arrivals. In 2013, the economy contracted by 1.6%, with a significant drop-off in construction activity and declining tourist arrivals.

The economy's estimated growth for 2014 was 5.4%, reflecting strong growth in tourism and related activities. However, the current level of economic activity is below that attained in the mid-2000s when large infrastructure projects and a vibrant tourism industry led to a record GDP. The estimated real GDP per capita grew by USD 1,028 since the 2006 HIES, from USD 9,500 to USD 10,528 between 2006 and 2014, respectively.

Background to Household Income and Expenditure Survey

The Palau Office of Planning and Statistics (OPS) conducted the previous HIES in 2006, with 1,060 households being selected in the survey, of which 776 responded (73%) with sufficient data to significantly contribute to the survey analysis. For the 2014 Palau HIES, 1,145 households were selected in the survey, and the response rate was 76%.

The 2014 Palau HIES adopted a newly developed standardized HIES methodology for the Pacific Islands region. The new approach, currently being developed by the Secretariat of the Pacific Community (SPC), has resulted in improved survey forms being used for data collection, and involved collecting the data over a 12-month period to account for seasonal changes in income and expenditure patterns, and to keep the field team to a smaller, better qualified group. These changes should help towards seeing significant improvements in data quality. This is a significant change from the 2006 HIES where data collection took place over a six-month period.

Survey objectives

An HIES collects a wealth of information on not only income and expenditure, but also on a household's access to and use of certain facilities and assets.

The standardized HIES being developed for the Pacific Islands region, and being used by Palau for the 2014 survey, aims to produce typical key outputs that focus on:

- 1) obtaining expenditure weights and other useful data for the revision of the consumer price index;
- 2) supplementing the data available for use in compiling official estimates of various components in the System of National Accounts;
- 3) supplementing the data available for production of the balance of payments; and
- 4) gathering information on poverty lines and incidence of poverty throughout Palau.

In addition, the survey outputs aim to produce useful indicators and information on a range of sectors covered in the survey. While the focus is on income and expenditure, households' access to and use of certain facilities and assets are also analyzed. Short sector-based reports will address topics of most importance to Pacific Island nations, such as:

Food security	Education	Gender
Fisheries	Labor force	Home production
Agriculture	Transport	Food in general
Health	IT/Communication	Ceremonies/Gift giving

These outputs will provide basic data for social and economic planning and policy development.

Survey procedure

The 2014 Palau HIES focused on generating reliable results at the national level, with a secondary focus on producing results for the urban–rural split. The urban population consists of the states of Koror and Airai. The rural population of Palau refers to all other states, excluding the states of Hatohobei and Sonsorol, which are located a great distance away from the main population centers, and are very difficult to reach and only include a small proportion of the population (0.1% of the national population based on the 2012 census).

The sampling frame used was the 2012 Palau census, which provided population figures for everyone living in both private households and group quarters (e.g. worker barracks, school dormitories, prison). The sampling selection was done separately in private dwellings and group quarters.

For private dwellings, the selection process was different in urban and rural areas. In urban areas, the sample in Koror and Airai was selected separately within each state. The process was to sort the households in each state by their geographical position, and then randomly select households in this list in order to achieve the desirable sample size. In rural states, the sample was distributed to each state proportional to the number of households.

For the group quarters, the strategy adopted was to combine group quarters together so that there were roughly 20 people or more residing within them (these combined group quarters are referred to as primary selection units or PSUs). A sample of PSUs was then selected using probability proportional to size (PPS) sampling. Within each selected PSU, a sample of 14 people was selected using systematic sampling from the list of all people living within that PSU. The list was updated within each selected PSU prior to the round in which it was selected, and selections were based on the updated list.

It is important that this list was converted to household units rather than people because the data for the survey was collected from the household units. In most cases, the person was the household unit; however, there could have been cases where a couple could be living together in a group quarter, in which case they should be listed as one household.

Table 1: Questionnaire status.

Status	No. of family units	Percentage of family units
Household out of scope	35	3.1%
Vacant dwelling	59	5.2%
Non-interview after three attempts	22	1.9%
Other (refusal, funeral, other)	115	10.0%
Other loss	37	3.2%
Made contact and completed the interview	877	76.6%
Total	1,145	100%

More than 76% of the interviews were conducted without any issues (household in scope of the survey and agree to collaborate). The main reason for not conducting the survey was refusal (almost 10% of households).

Although 877 family units were interviewed, 8 were removed from analysis because too much information was missing on the survey form. In total, 869 valid interviewed household were kept in the analysis.

Table 2: Response rates for households in private dwellings.

	Code	State	Selected	Interviews completed	Response rate
Urban	14	Koror	480	355	73.9%
	7	Airai	160	119	74.4%
	Total		640	474	74.1%

Rural	1	Kayangel	10	0	0%
	2	Ngarchelong	30	27	90.0%
	3	Ngaraard	30	22	73.3%
	4	Ngiwal	20	18	90.0%
	5	Melekeok	30	25	83.3%
	6	Ngchesar	30	29	96.7%
	8	Aimeliik	30	30	100.0%
	9	Ngatpang	20	19	95.0%
	10	Ngardmau	20	20	100.0%
	11	Ngaremlengui	30	29	96.7%
	12	Angaur	20	12	60.0%
	13	Peleliu	50	35	70.0%
	Total		320	266	83.1%

Total			960	740	77.1%
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Table 3: Response rates for households in worker barracks.

	Selected	Interviews completed	Response rate
Urban	135	81	60.0%
Rural	50	48	96.0%
Total	185	129	69.7%

Table 4: Response rate for all households.

	Selected	Interviews completed	Response rate
Urban	775	553	71.3%
Rural	370	316	85.4%
Total	1145	869	75.9%

Error measurements

No formal measure of sample errors has been calculated for the survey results. Non-sampling errors cannot be readily measured, and include issues such as:

- both respondents and interviewers not completely understanding what was required from the survey;
- the questionnaires being in English, which is a second language for both interviewers and respondents;
- the exclusion of remote areas and institutions from the sampling frame.

The methodological report provides a section on data quality.

Section 2: Population profile

This section of the report aims to undertake some basic demographic analysis of the characteristics of interviewees who were part of the 2014 HIES sample survey, and compare these to the results from the 2012 mini census.

Although the characteristics of the population based on the 2012 mini census and 2014 HIES are not expected to be identical, it is hoped the rough distribution of the two populations will be similar, given that the time difference between the two surveys was quite close. Similarities in the population structure for the two surveys will support the HIES sample as being representative of the Palau population.

Demographic profile

Estimated population of Palau at the time of the HIES

The first section of the analysis shows the population count for Palau's private dwelling population was derived from the 2012 mini census. Using data projection, these figures have been updated to estimate the number of households and people during the mid-point (April 2014) of the 2014 Palau HIES.

As can be seen from the table below, it is estimated that the total population has grown from 17,501 in 2012 to 17,580 in 2014. This reflects a population increase of 0.5% between the two surveys. Table 5 further details the changes by urban and rural populations.

Figure 1 illustrates Palau's population distribution with more than 80% of the people living in an urban area and the remaining in rural areas.

Table 5: Population by area and change since last census

Area	2012 mini census	2014 HIES	% Change
Urban	14,202	14,334	0.9%
Rural	3,299	3,247	-1.6%
Total	17,501	17,581	0.5%

The second component of the population analysis compares the population structure witnessed during the 2012 Mini Census with the population structure from the sample of households in the 2013/14 HIES.

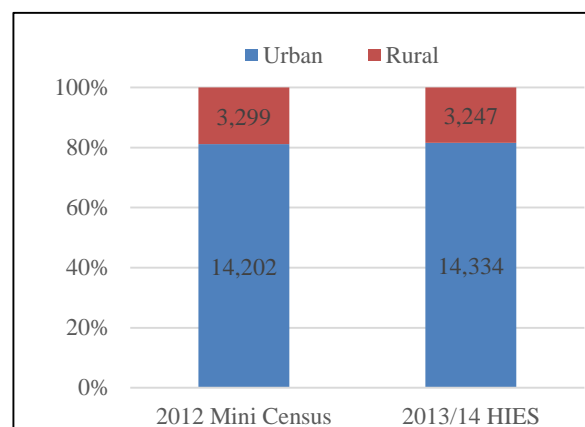


Figure 1: Palau's urban and rural population.

Table 6 presents the comparison of sex ratios between the 2012 mini census and the 2014 HIES; the latter indicates that the male population has slightly declined while the female population has increased between the two surveys. Due to the decline in the male population, the sex ratio likewise declined by nearly 9%.

This is also the case for the population pyramid, which shows the difference in the population structure between the 2012 mini census and the 2014 HIES. The results as the 2012 mini census and the 2014 HIES were not expected to be similar because the census is a complete enumeration, whereas the HIES is a partial enumeration (also known as sample survey), of which the results are used to estimate characteristics of an entire population.

Table 6: Comparison of sex ratios between the 2012 mini census and the 2014 HIES.

Area	2012 mini census			2014 HIES			% Change
	Males	Females	Sex ratio	Males	Females	Sex ratio	
Urban	7,506	6,696	1.12	7,254	7,080	1.02	-8.6%
Rural	1,711	1,588	1.08	1,609	1,638	0.98	-8.8%
Total	9,217	8,284	1.11	8,863	8,718	1.02	-8.6%

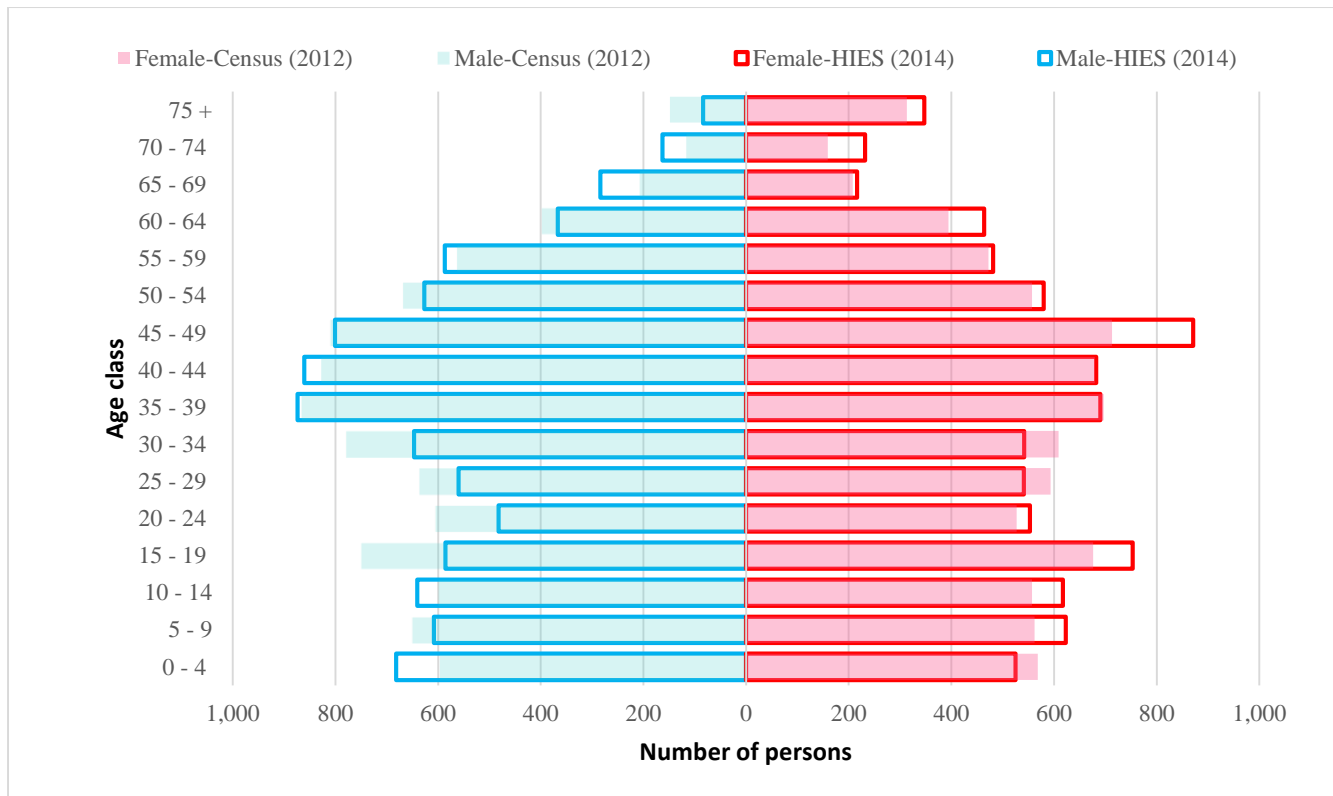


Figure 2: Population pyramid showing the difference in the number of males and females in each age category between the 2012 mini census and the 2014 HIES.

The population pyramid (Figure 2) shows the distribution of the population by five-year age groups and by sex. Each bar corresponds to the share of the age group and sex of the total population. During the 2014 HIES, young people aged 0–14 made up 21% of the population, while people of working age, 15–64 accounted for 71%, and ages 65 and over made up the remaining 8%.

Table 7 shows the percentage changes by sex and age group between the 2012 mini-census and the 2013/14 HIES. The number of male and females aged 0 to 14 increased in over the period, while the working age, 15 to 64, declined in male population while the female increased, and the offset resulted in a slight decline in the total population in this age group. Of all three groups, the older age group, ages 65 and over, increased the most (by approximately 15%).

Table 7: Population by sex and age group for both the 2012 census and the 2014 HIES.

Age group	2012 mini census			2014 HIES			% Change		
	Males	Females	Total	Males	Females	Total	Males	Females	Total
0–14	1,845	1,687	3,532	1,929	1,766	3,695	4.6%	4.7%	4.6%
15–64	6,897	5,917	12,814	6,402	6,157	12,559	-7.2%	4.1%	-2.0%
65 +	475	680	1,155	532	795	1,327	12.0%	16.8%	14.9%
Total	9,217	8,284	17,501	8,863	8,718	17,581	-3.8%	5.2%	0.5%

Dwelling characteristics

The third component of analysis for this section contains information on characteristics of dwellings in Palau, which were captured by the 2014 HIES.

Table 8 below shows that metal roofing is quite common in both urban and rural areas, with about 77% of urban dwellings and 93% of the rural dwellings using metal as a roofing material. The table also shows that the most common type of material used for walls and floors is concrete.

Table 8: Main materials used for dwellings in both urban and rural areas by type of material used.

Main material	Urban areas				Rural areas			
	Concrete	Metal	Wood	Other	Concrete	Metal	Wood	Other
Used for roof	21%	78%	1%	0%	6%	93%	1%	0%
Used for walls	47%	14%	38%	1%	37%	28%	34%	0%
Used for floor	69%	29%	1%	1%	64%	35%	2%	0%

Of the 5,946 households in Palau, 83% are in urban areas while the remaining 17% are in rural areas. The number of households in urban areas totaled 4,961, of which 99% have a connection to the public water supply as illustrated below in Figure 3.

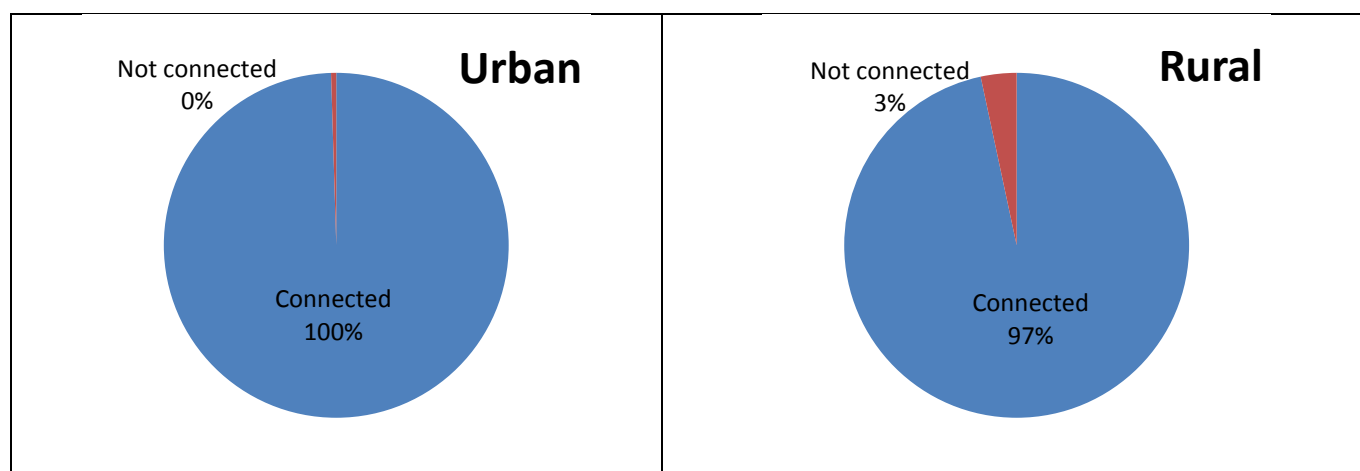


Figure 3: Percent of dwellings connected to public water supply by urban and rural areas.

Figure 4 indicates that the main source of sanitation is quite different in urban and the rural areas. The majority of households in urban areas are connected to a public sewerage system, while the majority in rural areas uses a septic tank as the main source of sanitation.

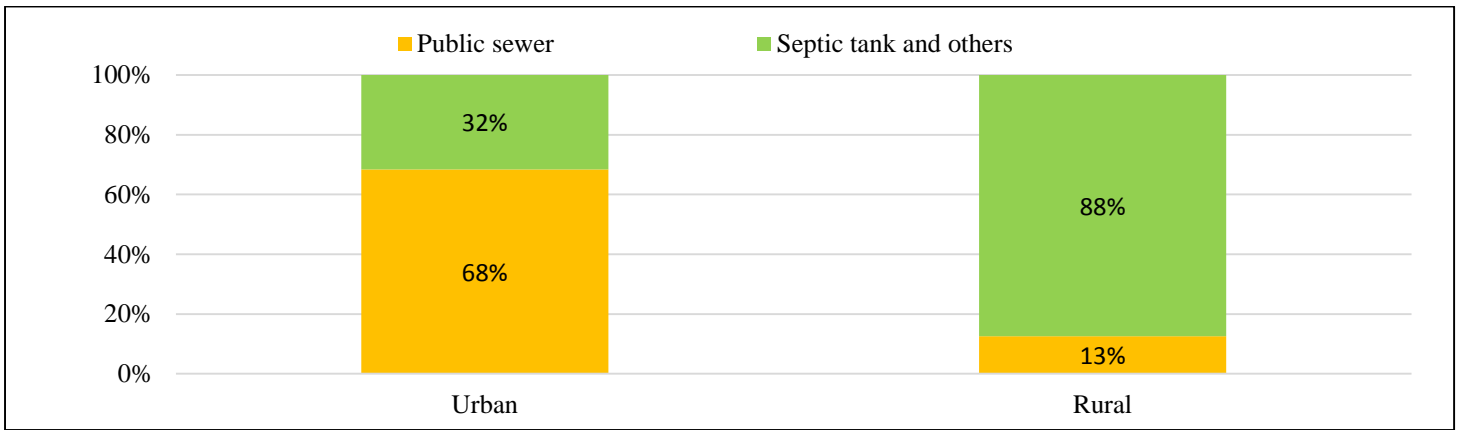


Figure 4: Main source of sanitation in Palau by urban and rural areas.

Figure 5 shows that 100% of urban households and 99% of rural households have access to the public electrical power grid. In addition to the use of public electricity sources, approximately 10% of households have access to an alternate power source, of which 90% consist of private generators and the remaining 10% is mainly solar or various other means.

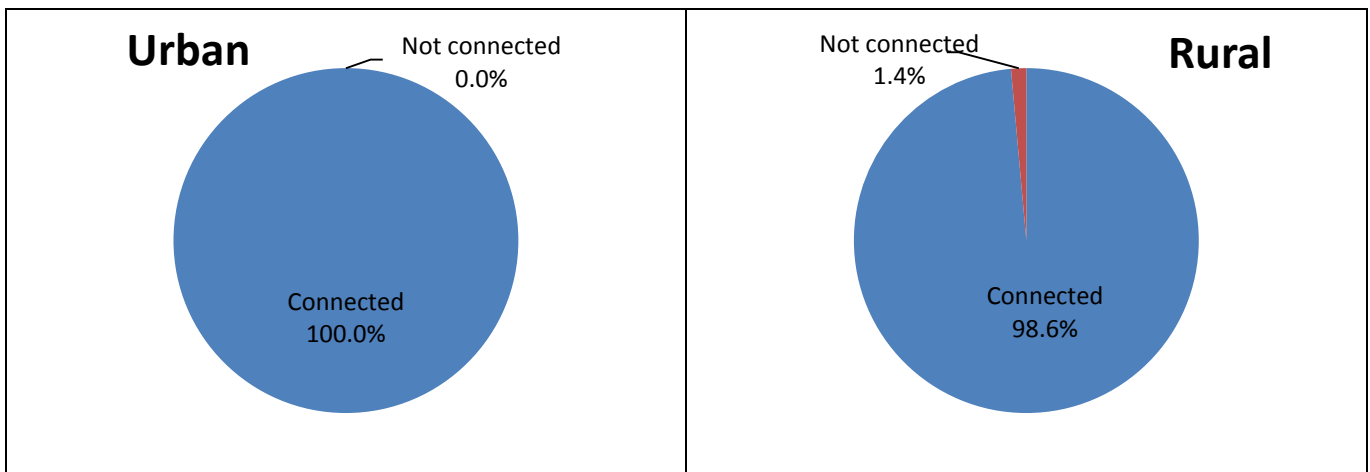


Figure 5: Dwellings connected to public power grid by urban and rural areas.

Figure 6 shows that 72% of both urban and rural households have access to a landline phone connection, of which 99% have working landline phones.

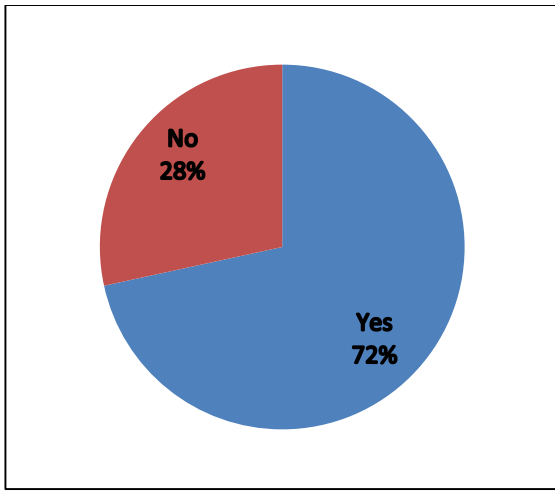


Figure 6: Access to landline phone.

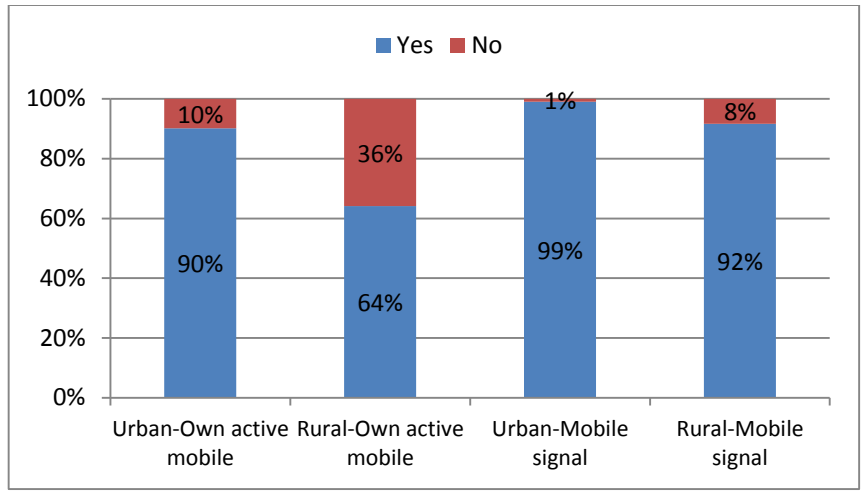


Figure 7: Ownership of activated mobile phone and mobile signal.

Figure 7 above illustrates the ownership of activated mobile phones and range of mobile signal coverage. Approximately 90% of all households in urban areas and 60% of households in rural areas own at least one active mobile phone. For mobile signal coverage, 99% of households in urban areas and 92% in the rural areas said they were within range of a mobile signal.

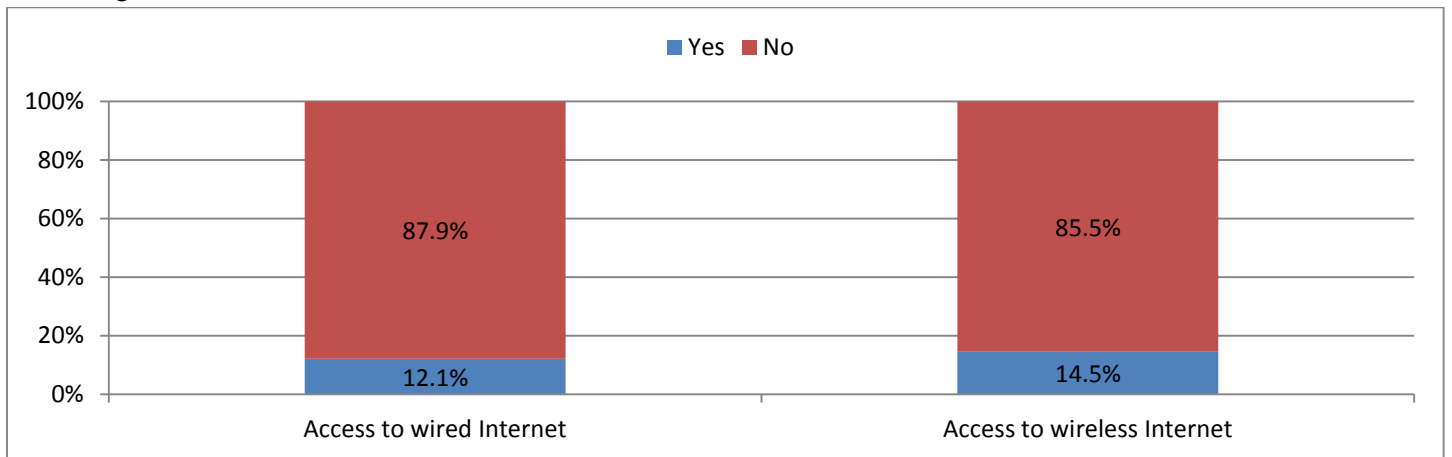


Figure 8: Access to Internet connection.

Figure 8 above shows that only a few households have access to wired and/or wireless Internet. Most of those who have access to a wired connection use “Homenet”, and the majority of those with access to wireless Internet are using Palau National Communications Corporation hotspots.

Section 3: Expenditure analysis

Introduction

This section provides some definitions, including the formation of main expenditure categories, the finer level division of expenditure categories (including the use of the classification of individual consumption by purpose (COICOP) for consumption expenditures), and definitions of expenditure types.

Following this is the main expenditure analysis, which includes distribution of household expenditures by major category and type, detailed analysis of expenditure categories, distribution of households with certain types of expenditures, comparison of expenditures with the 2006 HIES, expenditures by quintile and household characteristics, and finally, household expenditures by area and dwelling type.

Formation of main expenditure categories

Section 3 of this report covers the analysis undertaken on expenditures and disbursements information collected during the 2014 Palau HIES.

A main consideration in the development of this chapter was how best to classify the data collected in a way that would provide the most meaningful results to users. As such, the format was based on Resolution 1 from the Seventeenth International Conference of Labor Statisticians. This resolution proposes the following breakdown for classifying expenditures.

1. Consumption expenditure
 - 1.1. Household consumption expenditure: The value of consumer goods and services acquired, used or paid for by a household through direct monetary purchases, own-account production, barter or as income in-kind for the satisfaction of the needs and wants of its members.
 - 1.2. Other consumption expenditures: The value of consumer goods and services acquired or used by the household through transfers from the government, non-profit institutions or other households.
2. Non-consumption expenditures: Those expenditures incurred by a household as transfers made to the government, non-profit institutions and other households, without acquiring any goods or services in return for the satisfaction of the needs of its members.

Other information that will be useful in completing the expenditure and disbursement composition of the household includes:

3. Investments: Covers expense items incurred by household members for financial security or accumulation of significant assets, such as a house (including improvements of the house) and machinery.

Consumption expenditure

For tabulation purposes, the analysis separates category 1, consumption expenditure, into divisions conforming to the COICOP classification guidelines. This results in the following 12 divisions being formed in the tables for addressing consumption expenditure:

- food and non-alcoholic beverages
- alcoholic beverages, tobacco and narcotics
- clothing and footwear
- housing, water, electricity, gas and other fuels
- furnishings, household equipment and routine household maintenance
- health
- transport
- communication
- recreation and culture
- education
- restaurants and hotels
- miscellaneous goods and services

Non-consumption expenditure

For category 2, non-consumption expenditure is divided into subcategories of importance to Palau. The six main subcategories include:

- cash donations for special events and ceremonies
- cash donations to support other households (in Palau or overseas)
- cash transfers to church
- taxes
- donations to community, school and/or village
- other donations (e.g. charitable contributions)

Special events include weddings, funerals and birthdays. Except for taxes, the other five represent some sort of assistance or support to the community (or to another household, church, village, school).

Investment

For category 3, investments were only collected under four subcategories:

- land purchase
- house purchase and/or major alteration of dwelling
- plants, equipment
- home mortgages

Although households selected for the survey were asked if they purchased a house, no cases arose during data collection.

Type of expense

To add further value to the analysis, effort has been made throughout the survey to determine how expenditure took place. Five main expenditure types have been created to establish the manner in which the expenditure took place:

- cash and/or in-kind purchases
- home production

- in-kind receipts – expenditure for the benefit of another household
- in-kind receipts – home production given away
- imputed rents

Further explanations for these are provided below.

Cash and in-kind purchases

Cash and in-kind purchases represent any purchases made by the household for goods or services for which a payment was made by the household. The payment can be made in the form of a cash payment or payment in-kind (i.e. the household pays for the goods or service with something other than cash). In the situation where a purchase is made in-kind, the household is required to estimate the value of the item or service they exchanged for their purchase.

Home production

Home production in the expenditure tables only covers the value of items that were home produced by the household and then consumed by that household. Any home production given away or sold by the household is not regarded as an expense. In the case of the selected household being given home-produced items from another household, this will be included in the group “in-kind receipts”.

In-kind receipts

In-kind receipts cover non-cash gifts given away by a household, which in turn are consumed by another household. This may be a home-produced item given away to another household, or any other goods bought for the benefit of other households.

Imputed rents

Imputed rents represent the value of the house for the owner and the people who live in their main house for free (rent free). An estimation of the monthly rent of the house (if they were to pay a rent) provided by the respondent makes it possible to determine this amount.

Expenditure analysis – main tables and graphs

Distribution of household expenditure by major categories

As seen in Figure 9, most household expenditures and disbursements are associated with consumption expenditure (82%), which as detailed earlier, represents items that the household consumes itself. This analysis includes cash and in-kind purchases and home production consumed and gift given away outside the household. Non-consumption expenditure accounts for 15% of all household expenditures, followed by investment (3%).

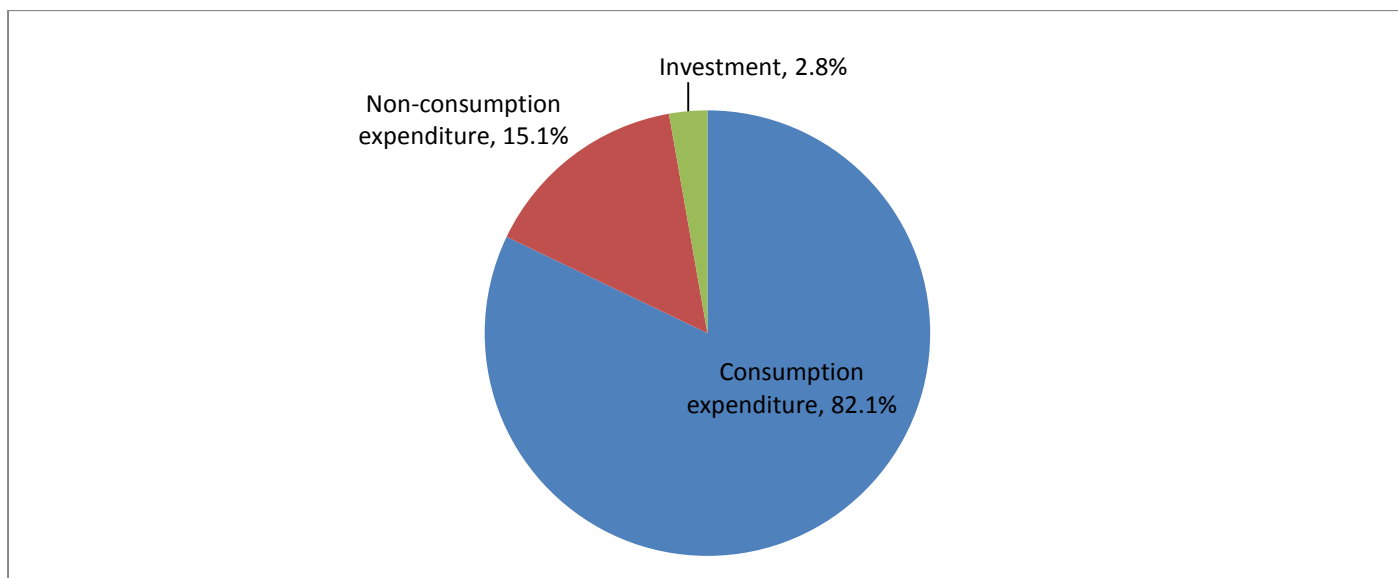


Figure 9: Percentage of expenditures and disbursements by major categories.

Figure 10 shows that the majority of expenditures under the “consumption expenditure” category is associated with “food and non-alcoholic beverages” (26%), which constitutes 22% of the total consumption expenditure. “Transportation” is the next most significant group (17%) followed by “housing and utilities” (16%). When combined, these three COICOP divisions account for nearly 60% of household consumption expenditures. “Miscellaneous goods and services” account for 10%, “alcohol beverages, tobacco and betel nuts”, “communication” and “furnishing equipment” each account for between 5% and 6%. The remaining 15% of the consumption expenditure comes from “clothing and footwear”, “recreation and culture”, “restaurants and hotels”, “education” and “health”, with accounting for less than 5% of the total consumption expenditure.

⁴It is noted that alcoholic beverages, tobacco and illicit substances (including betel nut) expenditure were not captured in the questionnaire modules; they were singularly collected through the household diary. Given the sensitive nature of this expenditure division, it is suggested that there may be the possibility for under-reporting of expenditure on this COICOP division by using the household diary. In other Pacific Island countries, this COICOP division typically accounts for a higher proportion of household expenditure.

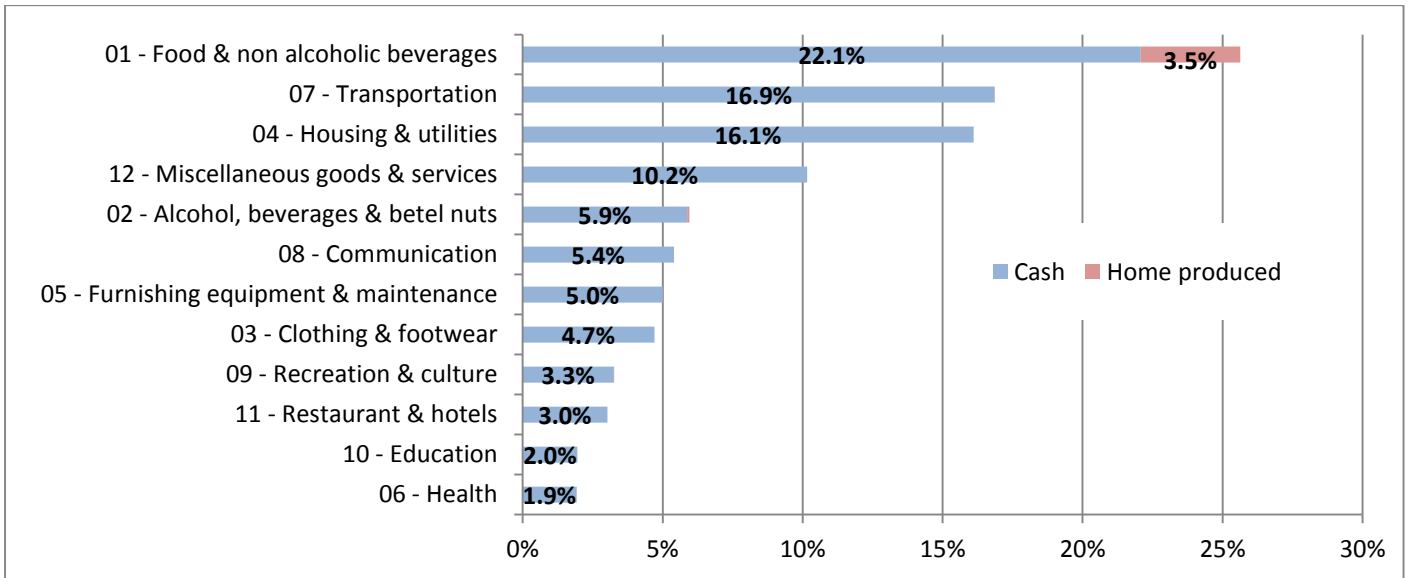


Figure 10: Percentage of total final consumption expenditure by COICOP division (COICOP divisions 1–12).

Figure 11 shows the breakdown of the non-consumption expenditure category, which amounts to 15% of the total expenditure, by subcategory. As can be seen, “ceremonies” make up 71% of this category. “Cash donations to households” make up a significant proportion at almost 21%, “cash donations to church” account for 6%, and “donations to associations”, “taxes and fines” and “other charitable” collectively make up the remaining 3% of non-consumption expenditures.

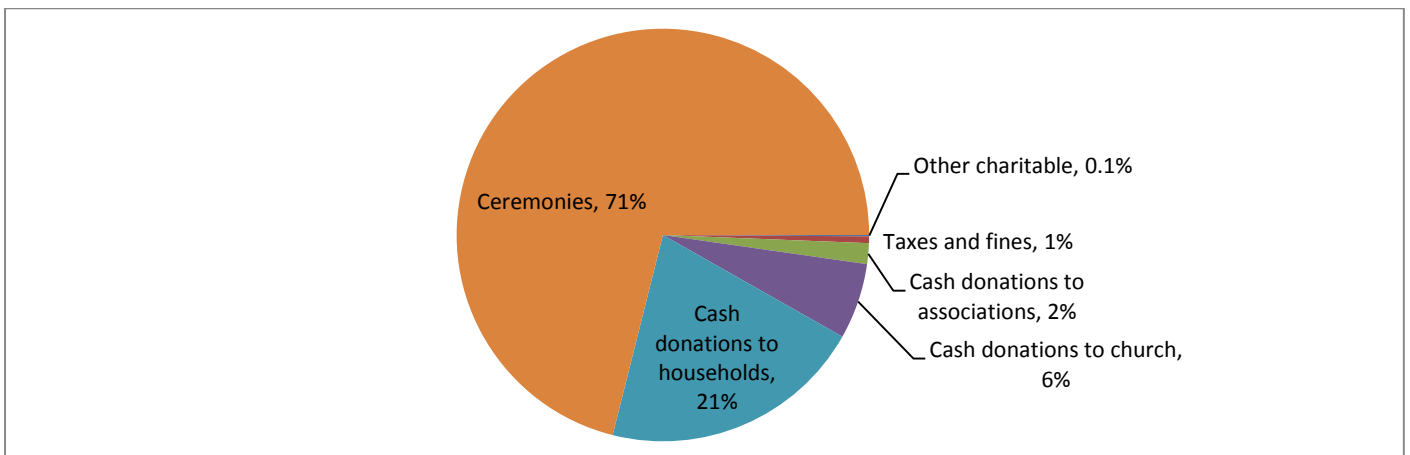


Figure 11: Percentage of non-consumption expenditure by category (non-COICOP).

Investment expenditure consisted of “house construction” (35%), “mortgage payment” (27%) and “plants and equipment” (27%). Following these was “purchase of land or house, which accounted for the remaining 11%.

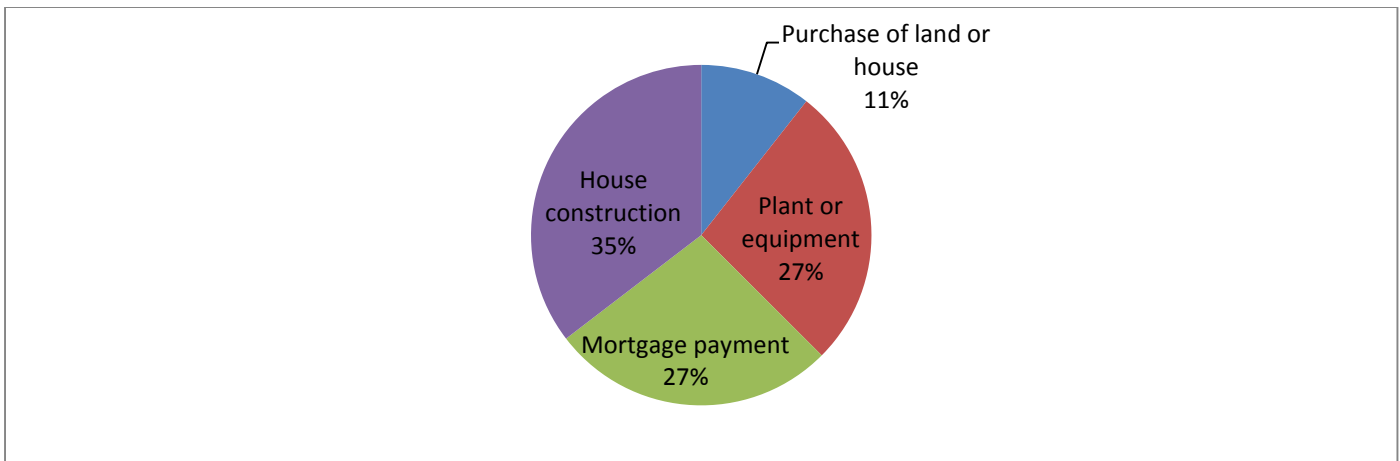


Figure 12: Percentage of the investment expenditure by subcategory (non-COICOP).

Annual expenditure amounts by category and type

The following three tables (Tables 9, 10 and 11) show the aggregated dollar amounts spent by Palauan households on each of the consumption and non-consumption expenditure categories as well as investment. To provide additional information, consumption expenditure has been divided into three categories: “cash/in-kind purchase”, “home production consumed”, or an “in-kind receipt”. The same analysis is provided for each of these three tables for “monthly expenditure” in (Appendix A).

Table 9 shows that Palauan households spent almost USD 88 million on goods and services, donations and investments in 2014 (total expenditure, excluding imputed rents), with the vast majority of this being cash purchases that account for USD 83.4 million (95%). The consumption of home-produced goods accounts for an additional USD 1.9 million (2%), with in-kind receipts making up the remaining USD 2.6 million (3%).

Table 9 also shows that Palauan households pay USD 13.3 million on expenses they do not consume themselves (cash donations), the majority of which are ceremonies such as weddings, funerals and birthdays.

In terms of average annual household expenditure⁵, Table 10 shows that households in Palau consume on average USD 14,800 per annum (consumption, non-consumption and investment expenditures, excluding imputed rents). Non-consumption expenditure (e.g. cash donations to ceremonies, other households, church) consists of a large (15%) component of household expenditure (excluding imputed rents).

Finally, when these figures are converted to per capita expenditure per year (Table 11), the average Palauan consumes an estimated USD 5,000 per annum on goods and services (excluding imputed rents). This amount equates to USD 1,053 on “food and non-alcoholic beverages”, USD 662 on “housing and utilities” (excluding imputed rents), and USD 692 on “transport”.

⁵Averages are not equivalized.

Table 9: Total annual household expenditure by expense category and expense type (in USD '000).

Expenditure category	Beneficiary: own household		Beneficiary: another household (in-kind)			Total
	Cash	Home produced	Cash	Home produced	Imputed rent	
Consumption expenditure						
01. Food and non-alcoholic beverages	15,520	1,880	440	680	-	18,520
02. Alcoholic beverages, tobacco, etc.	4,200	10	50	50	-	4,310
03. Clothing and footwear	3,360	-	40	-	-	3,400
04. Housing and utilities	11,400	-	230	-	21,350	32,980
05. Furnishings, equipment and maintenance	3,550	-	70	-	-	3,620
06. Health	1,370	-	20	-	-	1,390
07. Transportation	12,120	-	60	-	-	12,180
08. Communication	3,890	-	20	-	-	3,910
09. Recreation and culture	2,320	-	40	-	-	2,360
10. Education	1,350	-	70	-	-	1,420
11. Restaurants and hotels	2,030	-	160	-	-	2,190
12. Miscellaneous goods and services	6,610	-	740	-	-	7,350
Total consumption expenditure	67,720	1,890	1,930	730	21,350	93,610
Non-consumption expenditure						
Ceremonies	9,450	-	-	-	-	9,450
Cash donations to households	2,760	-	-	-	-	2,760
Cash donations to church	790	-	-	-	-	790
Taxes and fines	70	-	-	-	-	70
Cash donations to associations	220	-	-	-	-	220
Other charitable	10	-	-	-	-	10
Total non-consumption expenditure	13,300	-	-	-	-	13,300
Investment expenditure						
Purchase of land or house	260	-	-	-	-	260
House construction	860	-	-	-	-	860
Plant or equipment	650	-	-	-	-	650
Mortgage payment	660	-	-	-	-	660
Total investment expenditure	2,430	-	-	-	-	2,430
Total household expenditure	83,450	1,890	1,930	730	21,350	109,340

Table 10: Average annual household expenditure by expense category and expense type (in USD)⁶.

Expenditure category	Beneficiary: own household		Beneficiary: another household (in-kind)			Total
	Cash	Home produced	Cash	Home produced	Imputed rent	
Consumption expenditure						
01. Food and non-alcoholic beverages	2,610	320	70	120	-	3,120
02. Alcoholic beverages, tobacco, etc.	710	-	10	10	-	730
03. Clothing and footwear	570	-	10	-	-	580
04. Housing and utilities	1,920	-	40	-	3,590	5,550
05. Furnishings, equipment and maintenance	600	-	10	-	-	610
06. Health	230	-	-	-	-	230
07. Transportation	2,040	-	10	-	-	2,050
08. Communication	650	-	-	-	-	650
09. Recreation and culture	390	-	10	-	-	400
10. Education	230	-	10	-	-	240
11. Restaurants and hotels	340	-	30	-	-	370
12. Miscellaneous goods and services	1,110	-	120	-	-	1,230
Total consumption expenditure	11,400	320	320	130	3,590	15,760
Non-consumption expenditure						
Ceremonies	1,590	-	-	-	-	1,590
Cash donations to households	460	-	-	-	-	460
Cash donations to church	130	-	-	-	-	130
Taxes and fines	10	-	-	-	-	10
Cash donations to associations	40	-	-	-	-	40
Other charitable	-	-	-	-	-	-
Total non-consumption expenditure	2,240	-	-	-	-	2,240
Investment expenditure						
Purchase of land or house	40	-	-	-	-	40
House construction	150	-	-	-	-	150
Plant or equipment	110	-	-	-	-	110
Mortgage payment	110	-	-	-	-	110
Total investment expenditure	410	-	-	-	-	410
Total household expenditure	14,050	320	320	130	3,590	18,380

⁶ Tables 10 and 11 are average household and per capita expenditure respectively. They were calculated as the total aggregated annual household expenditure (Table 9) divided by the population (households = 5,946 for Table 10; persons = 17,581 for Table 11). Note that Table 9 is reported in USD'000 and that all tables have been rounded, so there may be slight differences due to rounding.

Table 11: Average annual per capita expenditure by expense category and expense type (in USD).

Expenditure category	Beneficiary: own household		Beneficiary: another household (in-kind)			Total
	Cash	Home produced	Cash	Home produced	Imputed rent	
Consumption expenditure						
01. Food and non-alcoholic beverages	880	110	30	40	-	1,050
02. Alcoholic beverages, tobacco	240	-	-	-	-	250
03. Clothing and footwear	190	-	-	-	-	190
04. Housing and utilities	650	-	10	-	1,220	1,880
05. Furnishings, equipment and maintenance	200	-	-	-	-	210
06. Health	80	-	-	-	-	80
07. Transportation	690	-	-	-	-	690
08. Communication	220	-	-	-	-	220
09. Recreation and culture	130	-	-	-	-	130
10. Education	80	-	-	-	-	80
11. Restaurants and hotels	120	-	10	-	-	120
12. Miscellaneous goods and services	380	-	40	-	-	420
Total consumption expenditure	3,860	110	190	40	1,220	5,320
Non-consumption expenditure						
Ceremonies	540	-	-	-	-	540
Cash donations to households	160	-	-	-	-	160
Cash donations to church	50	-	-	-	-	50
Taxes and fines	-	-	-	-	-	-
Cash donations to associations	10	-	-	-	-	10
Other charitable	-	-	-	-	-	-
Total non-consumption expenditure	760	-	-	-	-	760
Investment expenditure						
Purchase of land or house	20	-	-	-	-	20
House construction	50	-	-	-	-	50
Plant or equipment	40	-	-	-	-	40
Mortgage payment	40	-	-	-	-	40
Total investment expenditure	150	-	-	-	-	150
Total household expenditure	4,750	110	110	40	1,220	6,220

Distribution of consumption expenditure by detailed COICOP class

The following section shows the distribution of consumption expenditure on each COICOP class. The total annual expenditure amount and distribution by COICOP division is provided in table below as a reference and to put the figures presented in this section into perspective.

Table 12: Total annual expenditure by COICOP division and expenditure type (in USD '000) and expenditure distribution (%).

COICOP division	Expenditure (USD '000)				Expenditure distribution (%)			
	Cash	Home produced	Imputed rents	Total	Cash	Home produced	Imputed rents	Total
Food and non-alcoholic beverages	15,950	2,570	-	18,520	17%	3%	-	20%
Alcoholic beverages, tobacco and illicit substances	4,250	50	-	4,300	5%	0%	-	5%
Clothing and footwear	3,400	-	-	3,400	4%	-	-	4%
Housing and utilities	11,640	-	21,350	32,990	12%	-	23%	35%
Furnishings, equipment and maintenance	3,610	0	-	3,620	4%	0%	-	4%
Health	1,390	-	-	1,390	1%	-	-	1%
Transportation	12,190	-	-	12,190	13%	-	-	13%
Communication	3,910	-	-	3,910	4%	-	-	4%
Recreation and culture	2,350	0	-	2,350	3%	0%	-	3%
Education	1,410	-	-	1,410	2%	-	-	2%
Restaurants and hotels	2,190	-	-	2,190	2%	-	-	2%
Miscellaneous goods and services	7,340	-	-	7,340	8%	-	-	8%
Total	69,630	2,620	21,350	93,610	74%	3%	23%	100%

COICOP division1: Food and non-alcoholic beverages

Total annual expenditure: USD 18.5 million

Percentage contribution to consumption expenditure: 20%

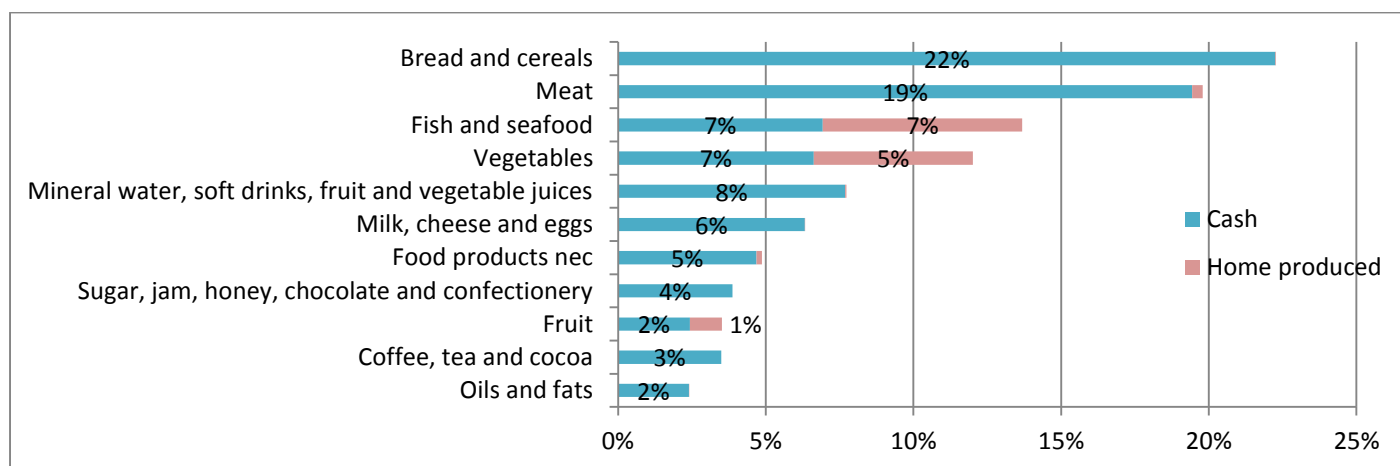


Figure 13: Percentage breakdown of food and non-alcoholic beverages.

“Bread and cereals” is the main expenditure class within the “food and non-alcoholic beverages” division, accounting for 22% of the total consumption expenditure, followed by the “meat”, “fish and seafood” and “vegetables”. These four classes account for two-thirds of the total food and non-alcoholic beverage expenditure. Home production (subsistence) is important for the supply of “fish and seafood”, “vegetables” and “fruit”; however, home production only accounts for 14% of the total food and non-alcoholic beverages expenditure.

Figure 14 shows the origins of food consumed — cash purchased or home produced by the household, or gifted from another household⁷, and shows that over one-third of fish and seafood consumed by Palauan households is home produced. In addition to this, 13% of fish and seafood is gifted from one household to another and, of this, the majority is home produced. Combining home produced and consumed with home produced and gifted, one-

⁷Note that gifted from another household includes cash purchased and home-produced gifts.

half of fish and seafood consumed in Palau is caught or produced by the household while the remainder is cash purchased.

Fruit and vegetables have similar origins to seafood. That is, around half (two-thirds for fruit), is cash purchased while the remainder is home produced (Fig. 14). The remaining classes in the “food and non-alcoholic beverages” division are cash purchased.

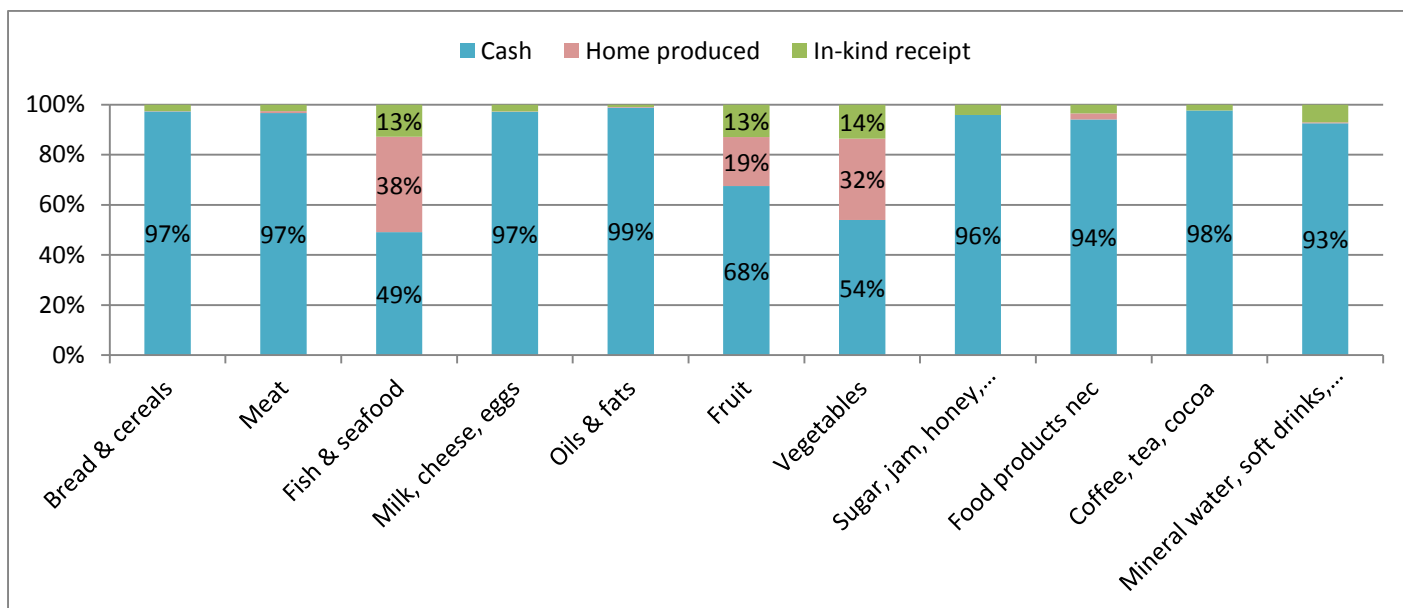


Figure 14: Origin of food items consumed.

COICOP division 2: Alcoholic beverages, tobacco and narcotics

Total annual expenditure: USD 4.3 million

Percentage contribution to consumption expenditure: 5%

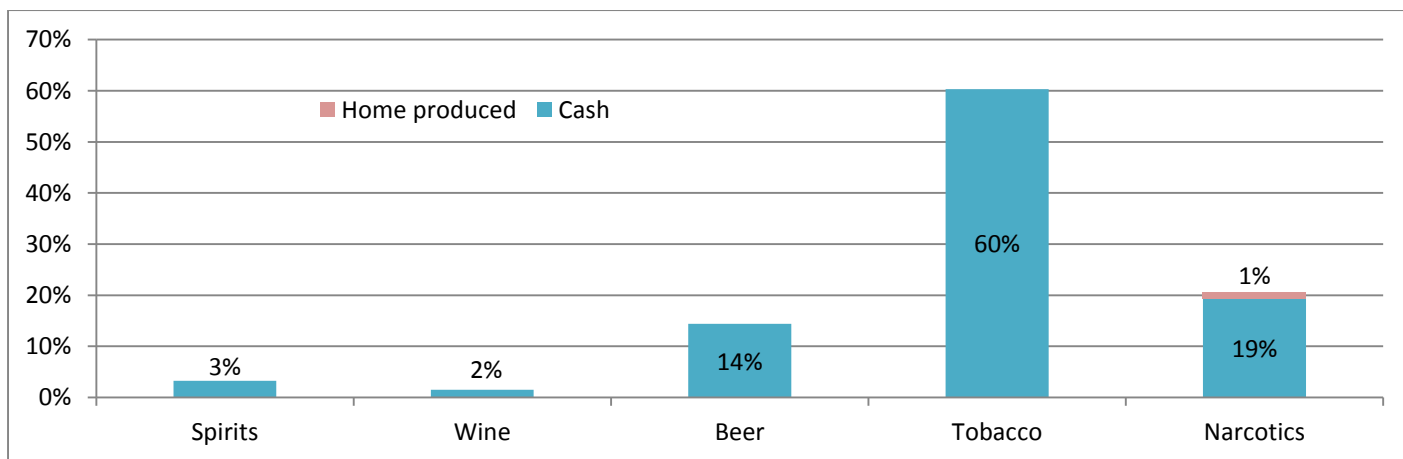


Figure 15: Percentage breakdown of alcohol, tobacco and narcotics (e.g. betel nut).

Tobacco accounts for 60% of the total expenditure in this COICOP division, and is followed by narcotics (nearly 99% of the expenditure in this COICOP class being on betel nut), which accounts for 19% of expenditure, beer (14%) and spirits and wine accounting for 3% and 2%, respectively.

It is emphasized that these data were only collected through the household diary⁸, so there is potential for under-reporting due to the issues noted above. The small proportion of home-produced betel nut is surprising and not

⁸ The household diary is a 2 week diary that is completed by the household. It collects information on all expenditure, gifts received and home produced items throughout the entire diary period.

in-line with neighboring countries, such as the Federated States of Micronesia, where two-thirds of betel nut expenditure was home produced and betel nut expenditure was greater than tobacco expenditure.

COICOP division 3: Clothing and footwear

Total annual expenditure: USD 3.4 million

Percentage contribution to consumption expenditure: 4%

Garments make up 60% of household expenditure in the clothing and footwear division, followed by clothing repair and hire (25%), and shoes and footwear (12%).

COICOP division 4: Housing, water, electricity and other fuels

Total annual expenditure: USD 32.9 million

Percentage contribution to consumption expenditure: 35%

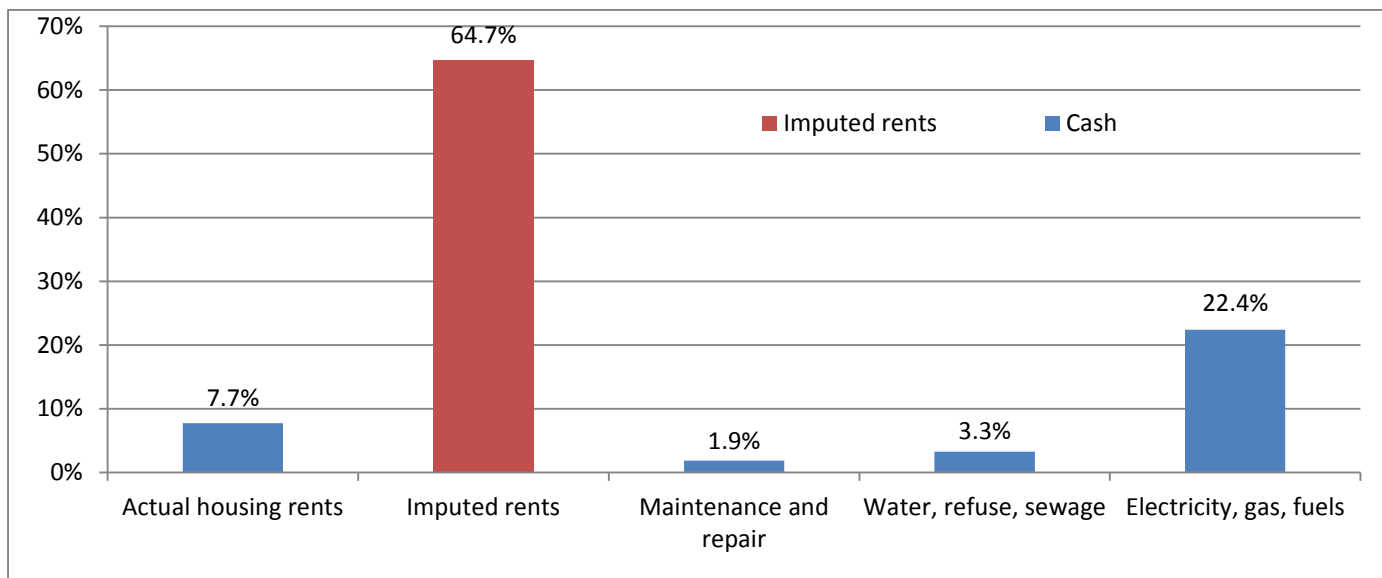


Figure 16: Percentage breakdown of housing, water, electricity and other fuels.

Figure 16 shows that almost 65% of the housing expenditure is due to imputed rents (estimated value of rent for owner-occupied households and for people who live rent free if they were to pay rent). The largest cash expenditure in this COICOP division is associated with household energy (electricity, gas, other fuels). Excluding imputed rents and although not shown in the Figure 16, expenditure in this COICOP division mainly consists of electricity (48%), rents paid by tenants (20%), gas (12%) and water (8%).

COICOP division 5: Furnishings, household equipment and maintenance

Total annual expenditure: USD 3.6 million

Percentage contribution to consumption expenditure: 4%

Expenditure within this division mainly consists of non-durable household goods (32%), household services (27%), major appliances (9%) and furniture and furnishings (8%).

COICOP division 6: Health

Total annual expenditure: USD 1.4 million

Percentage contribution to consumption expenditure: 1%

Hospital services are the main expenditure class in this division, accounting for 39% of the expenditure, followed by pharmaceutical products (24%), medical services (20%) and paramedical services (11%).

COICOP division 7: Transport

Total annual expenditure: USD 12.2 million

Percentage contribution to consumption expenditure: 13%

More than half of the transport expenditure is on fuel and lubricants, and almost all of this is for gasoline for vehicles. Fuel expenditure comprises fuel for road vehicles and boats (recreational purposes only, so excluding intermediate business and production-related expenditure). Fuel for domestic use is covered under COICOP division 4.

The purchase of motor cars (20%), transport by air (9%), maintenance and repair (6%), other private transport (4%) and spare parts (3%) make up the majority of the remaining transport-related expenditure.

COICOP division 8: Communication

Total annual expenditure: USD 3.9 million

Percentage contribution to consumption expenditure: 4%

Telephone (and telefax) services account for 94% of the household communication expenditure. Telephone and telefax services include the COICOP subclasses of purchase of phone cards (71%); land telephone bill (19%); and Internet access (10%). Telephone and telefax equipment purchases almost entirely consist of cell phone purchases.

COICOP division 9: Recreation and culture

Total annual expenditure: USD 2.4 million

Percentage contribution to consumption expenditure: 3%

Recreation and culture expenditure is dominated by the “cultural services” COICOP class, which accounts for 45% of expenditure within this division. Cable TV subscriptions make up 96% of expenditure on “cultural services”. Books are the second most significant expenditure in this division, and the majority of expenditure in this class is for school text books – (these should technically be classified as educational expenditure).

COICOP division 10: Education

Total annual expenditure: USD 1.4 million

Percentage contribution to consumption expenditure: 2%

Education expenditure, following the COICOP division, is strictly dedicated to school fees. School uniforms are coded under garments (“clothing” division 03) and books and stationeries under “newspapers, books and stationeries” (“recreational and culture” division 9). Tertiary education accounts for 55% of expenditure within this division, followed by secondary (24%) and pre- and primary education (21%).

COICOP division 11: Restaurants and hotels

Total annual expenditure: USD 2.2 million

Percentage contribution to consumption expenditure: 2%

The “restaurants, cafes and the like” COICOP division includes all of the “takeaway” food items that Palauan households consume. Within the restaurants and cafes class, takeaway food amounts to 90% of expenditure. Accommodation services mainly comprise overseas accommodations (4%) and accommodations for students (2%).

COICOP division 12: Miscellaneous goods and services

Total annual expenditure: USD 2.2 million

Percentage contribution to consumption expenditure: 8%

Financial services account for 51% of expenditures within this division and the majority of this is interest on loans. “Personal care”, accounting for 31% of the expenditure within this division, comprises all personal hygiene items such as body soap, gels, toilet paper, diapers, and electronic items for personal care.

Distribution of household expenditure by category and type

Tables 13 and 14 show the distribution of each expenditure category and expenditure type with respect to total expenditure. Imputed rents have been excluded.

Table 13 shows the percentage expenditure contribution within each of the three broad categories: “consumption expenditure”, “non-consumption expenditure” and “investment expenditure”, the contribution of division and subcategory to category total by beneficiary and expenditure type. Food and non-alcoholic beverages contribute 26% to the total consumption expenditure, however, actual cash purchases of food and non-alcoholic beverages only contributes to 22% of total consumption expenditure (22% if we sum the purchase for the household and for the benefit of another household). Additionally, Table 13 shows that 3.6% of the final consumption expenditure is home produced (2.6% + 1%).

Table 13: Distribution of household expenditure within group by expense category and expense type.

Expenditure category	Beneficiary: own household		Beneficiary: another household (in-kind)		Total
	Cash	Home produced	Cash	Home produced	
Consumption expenditure					
01. Food and non-alcoholic beverages	21.5%	2.6%	0.6%	0.9%	25.6%
02. Alcoholic beverages and tobacco	5.8%		0.1%	0.1%	6.0%
03. Clothing and footwear	4.6%	-	0.1%	-	4.7%
04. Housing and utilities	15.8%	-	0.3%	-	16.1%
05. Furnishings, equipment and maintenance	4.9%	-	0.1%	-	5.0%
06. Health	1.9%	-	-	-	1.9%
07. Transportation	16.8%	-	0.1%	-	16.9%
08. Communication	5.4%	-	-	-	5.4%
09. Recreation and culture	3.2%	-	-	-	3.3%
10. Education	1.9%	-	0.1%	-	2.0%
11. Restaurants and hotels	2.8%	-	0.2%	-	3.0%
12. Miscellaneous goods and services	9.1%	-	1.0%	-	10.2%
Total consumption expenditure	93.7%	2.6%	2.7%	1.0%	100.0%
Non-consumption expenditure					
Ceremonies	71.1%	-	-	-	71.1%
Cash donations to households	20.7%	-	-	-	20.7%
Cash donations to church	5.9%	-	-	-	5.9%
Taxes and fines	0.5%	-	-	-	0.5%
Cash donations to associations	1.6%	-	-	-	1.6%
Other charitable	0.1%	-	-	-	0.1%
Total non-consumption expenditure	100.0%	-	-	-	100.0%
Investment expenditure					
Purchase of land or house	10.6%	-	-	-	10.6%
House construction	35.4%	-	-	-	35.4%
Plant or equipment	26.9%	-	-	-	26.9%
Mortgage payment	27.1%	-	-	-	27.1%
Total investment expenditure	100.0%	-	-	-	100.0%

Table 14 shows the percentage contribution to the overall total household expenditure for the three broad categories combined. Because the information is expressed as percentages of the overall total, the figures are somewhat smaller than those presented in Table 13. For example, expenditure for ceremonies represents 71% of the non-consumption expenditure total (as seen in Table 13), but is only 11% of total household expenditure (Table 14).

Table 14: Distribution of household expenditure within total by expense category and expense type.

Expenditure category	Beneficiary: own household		Beneficiary: another household (in-kind)		Total
	Cash	Home produced	Cash	Home produced	
Consumption expenditure					
01. Food and non-alcoholic beverages	17.6%	2.1%	0.5%	0.8%	21.0%
02. Alcoholic beverages and tobacco	4.8%		0.1%	0.1%	4.9%
03. Clothing and footwear	3.8%				3.9%
04. Housing and utilities	13.0%		0.3%		13.2%
05. Furnishings, equipment and maintenance	4.0%		0.1%		4.1%
06. Health	1.6%				1.6%
07. Transportation	13.8%		0.1%		13.8%
08. Communication	4.4%				4.4%
09. Recreation and culture	2.6%				2.7%
10. Education	1.5%		0.1%		1.6%
11. Restaurants and hotels	2.3%		0.2%		2.5%
12. Miscellaneous goods and services	7.5%		0.8%		8.3%
Total consumption expenditure	76.9%	2.1%	2.2%	0.8%	82.1%
Non-consumption expenditure					
Ceremonies	10.7%	-	-	-	10.7%
Cash donations to households	3.1%	-	-	-	3.1%
Cash donations to church	0.9%	-	-	-	0.9%
Taxes and fines	0.1%	-	-	-	0.1%
Cash donations to associations	0.2%	-	-	-	0.2%
Other charitable		-	-	-	
Total non-consumption expenditure	15.1%				15.1%
Investment expenditure					
Purchase of land or house	0.3%	-	-	-	0.3%
House construction	1.0%	-	-	-	1.0%
Plant or equipment	0.7%	-	-	-	0.7%
Mortgage payment	0.8%	-	-	-	0.8%
Total investment expenditure	2.8%				2.8%
Total household expenditure	94.8%	2.1%	2.2%	0.8%	100.0%

Percentage of households with certain types of expenditure

This section provides information on the proportion of households that incurred each expenditure category and type. As would be expected, nearly all households surveyed reported some cash and in-kind purchase of “food and non-alcoholic beverages” (96%). Other key consumption expenditures that had a high incidence of cash and in-kind purchases included “communication” (94%), “housing and utilities” (93%) and “miscellaneous goods and services” (93%).

In the non-consumption expenditure categories, the highest expenditures were “ceremonies” (78%) and “church donations” (53%).

Table 15: Percentage of households with expenditure by expense category and expense type.

Expenditure category	Beneficiary: own household		Beneficiary: another household (in-kind)		Total
	Cash	Home produced	Cash	Home produced	
Consumption expenditure					
01. Food and non-alcoholic beverages	96.3%	36.3%	13.4%	15.0%	96.8%
02. Alcoholic beverages, tobacco, etc.	59.4%	0.6%	2.8%	2.8%	60.3%
03. Clothing and footwear	77.6%	-	1.3%	-	77.9%
04. Housing and utilities	93.2%	-	2.0%	-	98.3%
05. Furnishings, equipment and maintenance	80.9%	-	1.7%	0.2%	81.0%
06. Health	44.4%	-	0.2%	-	44.4%
07. Transportation	75.9%	-	1.5%	-	76.0%
08. Communication	94.1%	-	1.1%	-	94.1%
09. Recreation and culture	67.8%	-	2.0%	0.2%	68.3%
10. Education	16.2%	-	0.7%	-	16.9%
11. Restaurants and hotels	59.1%	-	3.4%	-	59.4%
12. Miscellaneous goods and services	92.6%	-	20.8%	-	93.4%
Total consumption expenditure	99.6%	36.4%	37.2%	15.7%	99.7%
Non-consumption expenditure					
Ceremonies	78.3%	-	-	-	78.3%
Cash donations to households	35.7%	-	-	-	35.7%
Cash donations to church	53.0%	-	-	-	53.0%
Taxes and fines	21.2%	-	-	-	21.2%
Cash donations to associations	20.1%	-	-	-	20.1%
Other charitable	2.3%	-	-	-	2.3%
Total non-consumption expenditure	92.3%	-	-	-	92.3%
Investment expenditure					
Purchase of land or house	4.6%	-	-	-	4.6%
House construction	2.4%	-	-	-	2.4%
Plant or equipment	1.1%	-	-	-	1.1%
Mortgage payment	5.2%	-	-	-	5.2%
Total investment expenditure	12.5%	-	-	-	12.5%
Total household expenditure	99.6%	36.4%	37.2%	15.7%	99.7%

Comparison of total expenditure: 2006 vs 2014

The 2006 HIES did not code items according to COICOP, which makes comparison difficult at the item level, but at a broad level (division and class) Table 16 shows and compares total expenditure between the 2006 HIES and the 2014 HIES.

Table 16: Total annual expenditure, 2005 and 2014 (following the 2005 classification; in USD '000).

Comparable COICOP divisions	2006	2014	% change
Food and non-alcoholic beverages	15,000	18,520	23.5%
Alcoholic beverages, tobacco and illicit substances	3,100	4,300	39.0%
Clothing and footwear	990	3,400	244.3%
Housing and utilities, furniture and communication	15,470	19,160	23.9%
Health and education	5,540	2,810	-49.3%
Transportation	9,940	12,190	22.6%
Recreation and culture	2,090	2,350	12.3%
Miscellaneous goods and services and restaurants and hotels	18,020	9,530	-47.1%
Imputed rent	17,050	21,350	25.2%
Total consumption expenditure	87,200	93,610	7.3%

Total household expenditure increased by 7% between 2006 and 2014. This increase is mainly due to “clothing and footwear”, which almost quadrupled. However, it can be seen that expenditure in all divisions increased between the surveys, with the exception of “health and education” and “miscellaneous goods and services, restaurants and hotels”.

The order of magnitude of expenditure is similar between both surveys, with “housing and utilities” (including imputed rents) being the most significant expenditure division, followed by “food and non-alcoholic beverages” and “transportation”.

Table 17: Comparison of expenditure COICOP classes, 2006 and 2014 (in USD'000).

Detailed expenditure class	2006	2014	% change
Food and non-alcoholic beverages	15,000	18,520	23.5%
Seafood	1,880	2,540	35.0%
Meat, poultry, egg and dairy	3,720	4,840	30.1%
Fruits and vegetables	2,050	2,880	40.1%
Cereal products	2,490	4,130	65.5%
Fats and oil	250	450	78.3%
Condiments and spices	400	720	79.7%
Other food and takeaway	3,020	900	-70.1%
Non-alcoholic beverages	1,190	2,080	75.5%
Alcoholic beverages, tobacco and illicit substances	3,100	4,300	39.0%
Tobacco	1,620	2,600	59.9%
Alcohol	830	820	-0.7%
Betel nut	640	880	37.6%
Clothing and footwear	990	3,400	244.3%
Clothing	860	3,000	247.5%
Footwear	120	400	221.7%
Housing and utilities, furniture and communication	15,470	19,160	23.9%
Household maintenance	2,640	620	-76.6%
Rent	1,250	2,530	101.9%
Insurance and other housing	200	0	-100.0%
Household utilities and fuels	5,440	8,470	55.9%
Household appliances	1,080	1,200	11.3%
Furniture and home furnishings	490	310	-36.9%
Household supplies	1,240	0	-100.0%
Toiletries	360	0	-100.0%
Household services	1,430	2,120	48.3%
Household communication	1,350	3,910	190.3%
Transportation	9,940	12,190	22.6%
Motor fuel and oil	2,830	6,680	136.4%
Motor vehicle and boat expenses	5,820	4,100	-29.6%
Other transportation	1,300	1,410	8.3%
Health and education	5,540	2,810	-49.3%
Health	2,530	1,390	-45.0%
Personal care	1,080	0	-100.0%
Education	1,690	1,410	-16.3%
Personal services	230	0	-100.0%
Recreation and culture	2,090	2,350	12.3%
Miscellaneous goods and services, and restaurants and hotels	18,020	9,530	-47.1%
Imputed rent	17,050	21,350	25.2%
Total	87,180	93,610	7.3%

Household total expenditure by income quintiles

Table 18 shows the distribution of total household expenditure according to the total net income quintiles⁹. The poorest 20% of Palauan households only account for 9% of the total expenditure and 40% of the total expenditure is spent by 20% of the highest income households.

Table 18: Total annual expenditure (amount and distribution) by income quintile and expenditure type.

Income quintile (excluding imputed rents)	Expenditure (in USD)		Total	Expenditure distribution (%)		Total
	Cash	Home produced		Cash	Home produced	
1	7,700,090	145,220	7,845,310	8.8%	0.2%	8.9%
2	9,561,880	142,780	9,704,660	10.9%	0.2%	11.0%
3	13,817,280	502,870	14,320,160	15.7%	0.6%	16.3%
4	20,275,430	582,160	20,857,590	23.0%	0.7%	23.7%
5	34,009,000	1,251,900	35,260,910	38.7%	1.4%	40.1%
Total	85,363,680	2,624,930	87,988,630	97.0%	3.0%	100.0%

Table 19: Total annual expenditure by category and income quintile (in USD '000 and %).

Expenditure category	Quintile 1		Quintile 2		Quintile 3		Quintile 4	
	USD'000	%	USD'000	%	USD'000	%	USD'000	%
01. Food and non-alcoholic beverages	1,883	24.0%	2,449	25.2%	3,217	22.5%	4,244	20.3%
02. Alcoholic beverages, tobacco, etc.	361	4.6%	549	5.7%	749	5.2%	1,069	5.1%
03. Clothing and footwear	306	3.9%	442	4.6%	432	3.0%	892	4.3%
04. Housing and utilities	1,376	17.5%	1,140	11.8%	2,236	15.6%	2,633	12.6%
05. Furnishings, equipment and maintenance	238	3.0%	311	3.2%	460	3.2%	848	4.1%
06. Health	98	1.3%	139	1.4%	176	1.2%	291	1.4%
07. Transportation	797	10.2%	1,020	10.5%	2,055	14.3%	2,934	14.1%
08. Communication	451	5.7%	513	5.3%	675	4.7%	909	4.4%
09. Recreation and culture	159	2.0%	212	2.2%	339	2.4%	727	3.5%
10. Education	55	0.7%	23	0.2%	201	1.4%	405	1.9%
11. Restaurants and hotels	165	2.1%	305	3.1%	294	2.1%	564	2.7%
12. Miscellaneous goods and services	556	7.1%	828	8.5%	1,020	7.1%	1,578	7.6%
Non consumption	1,243	15.8%	1,740	17.9%	2,382	16.6%	3,201	15.3%
Investment	159	2.0%	34	0.4%	85	0.6%	564	2.7%
Total	7,845	100.0%	9,705	100.0%	14,320	100.0%	20,858	100.0%

In terms of annual total expenditure, the highest quintile spent, on average, 4.5 times more than the lowest quintile; expenditure in all categories was higher. "Transportation" shows the highest difference between quintiles 1 and 5, followed by "food and non-alcoholic beverages". Expenditure on school fees is USD 55,000 for 20% of the poorest households although the same division amounts to USD 731,000 for the wealthiest group (this is 13 times greater). "Investment expenditure" shows a similar trend (9 times higher in quintile 5). Expenditure in all categories is at least three times higher in quintile 5 than in quintile 1, with "communication" having the lowest difference.

The proportion of total expenditure on "food and non-alcoholic beverages", "housing, water, electricity and other fuels", "communication" and "non-consumption expenditure" is lower for higher quintile households, which may represent that lower quintile households allocate more of their income to necessities than higher income households. Those four expenditure divisions/categories amount to 63% of the total expenditure for the poorest households (quintile 1) and only 49% for the highest income households (quintile 5), which shows a positive link between expenditure diversity and total income.

Monthly household expenditure, on average in 2014, amounts to USD 1,230 (including cash expenditure, home production and gifts). Table 20 presents the breakdown by household total income quintiles. The lowest quintile group spends, on average per month, around USD 550 and the highest quintile spends 4.5 times more (USD 2,470).

⁹ Imputed rents have been excluded from the computation of income quintiles.

Table 20: Total, average annual and monthly household expenditure by income quintiles (in USD).

Income quintile	Total expenditure		Average household expenditure	
	USD'000	%	Per annum USD	Per month USD
Quintile 1	7,845	8.9%	6,600	550
Quintile 2	9,705	11.0%	8,160	680
Quintile 3	14,320	16.3%	12,040	1,000
Quintile 4	20,858	23.7%	17,540	1,460
Quintile 5	35,261	40.1%	29,650	2,470
Total	87,989	100.0%	14,800	1,230

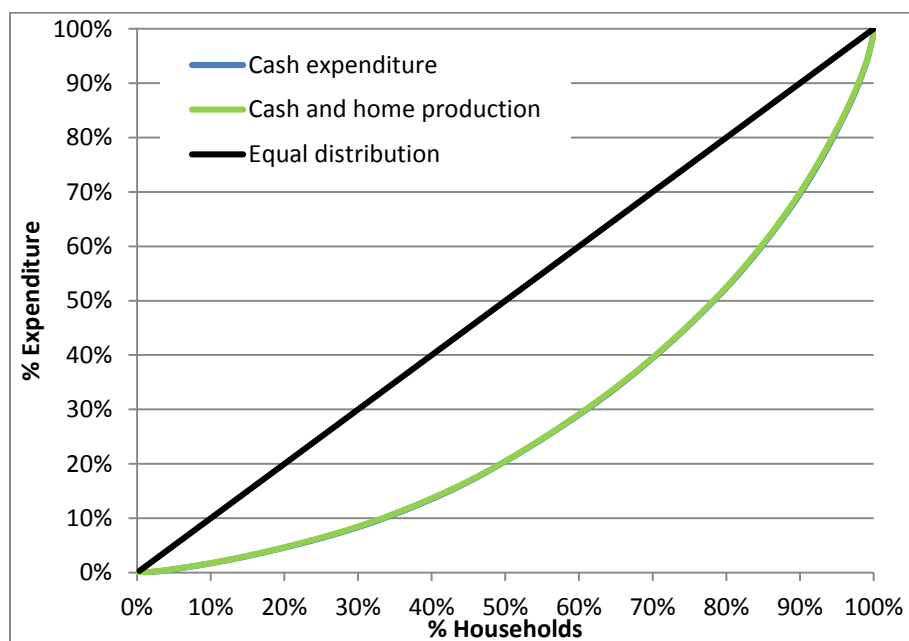
Higher income households have a higher proportion of home-produced expenditure, with lower income households allocating a higher proportion to cash expenditure (Table 21). This is a surprising trend as it would be assumed that lower income households depend more on subsistence. This may, however, be explained by the fact that lower income households consist of foreign workers who do not have the means to home produce.

Table 21: Expenditure composition by expenditure type and quintile.

Income quintile	Expenditure type		
	Cash	Home produced	Total
Quintile 1	98.1%	1.9%	100.0%
Quintile 2	98.5%	1.5%	100.0%
Quintile 3	96.5%	3.5%	100.0%
Quintile 4	97.2%	2.8%	100.0%
Quintile 5	96.4%	3.6%	100.0%
Total	97.0%	3.0%	100.0%

Expenditure distribution

In this section, we analyze the distribution of expenditure, both cash and total expenditure, among the population. To do this, the Lorenz curve is presented to give a visual depiction of expenditure distribution among Palauan households. Following this, Table 22 presents the Gini coefficients by area, which presents the difference between the line of expenditure equality and the Lorenz curve to portray the magnitude of expenditure inequality among the population.

**Figure 17: Lorenz curve — distribution of household expenditure.**

Note: Due to the low level of home production expenditure, the cash expenditure distribution line follows the total expenditure line so closely that the two lines cannot be distinguished from one another.

Figure 17 demonstrates that expenditure is not evenly distributed among the population. That is, some households account for a much greater proportion of total expenditure than others. About 50% of the surveyed households account for 26% of household expenditure (cash and home production); half of the households account for less than one-third of the total expenditure; while 10% of households account for 27% of the total expenditure. Moreover, Figure 17 shows that cash expenditure and cash and home production follow a similar distribution. As previously mentioned, home production in Palau is not a factor of reducing inequality, because high income households are more involved in subsistence activities than low income households.

To further support this, Table 22 shows the calculated Gini coefficients at the national, urban and rural levels in Palau. The Gini coefficient measures the area between the equality line and the Lorenz curve in Figure 17. A Gini coefficient of zero is perfect equality (i.e. the population equally shares the same amount of expenditure), while a Gini coefficient of 1 is total inequality (i.e. where one household accounts for total expenditure).

Table 22 demonstrates a cash and total expenditure Gini of 0.43 at the national level, with urban areas having higher expenditure inequality than rural areas. There is no significant difference between cash and total expenditure inequality.

Table 22: Rural, urban and national level Gini coefficients.

	National	Urban	Rural
Cash income	0.43	0.44	0.36
Total income (including imputed rents)	0.43	0.45	0.33

Household total expenditure by household and head of household characteristics

Figure 18 compares household size and average household expenditure. In households with up to five members, there is a positive correlation between household size and expenditure. However, in households with more than five household members, average household expenditure falls and stabilizes, which may be indicative of households suffering from economic hardship, or economies of scale. Households with 10 or more members spend a significantly higher amount per annum, although the statistical significance of this is questionable and may be due to a sampling or aggregation error.

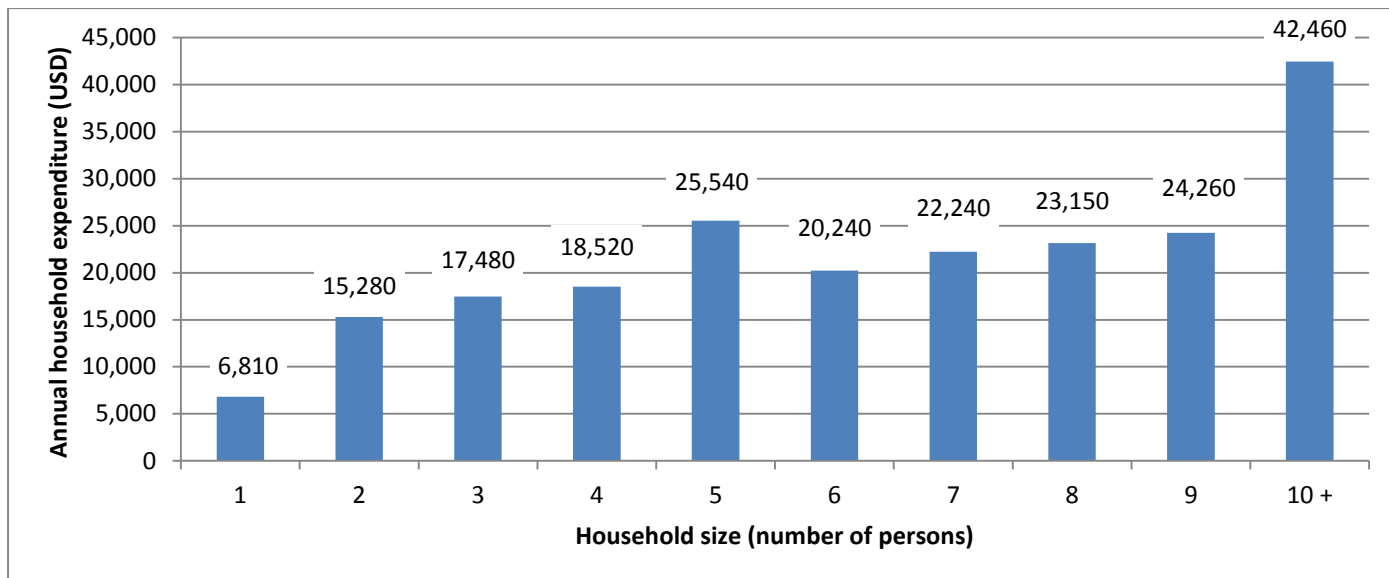


Figure 18: Annual average household expenditure by household size (in USD).

Figure 19 shows the annual per capita expenditure by household size. This possibly confirms the proposal that households achieve economies of scale, as it can be seen that the per capita expenditure generally falls as household size increases.

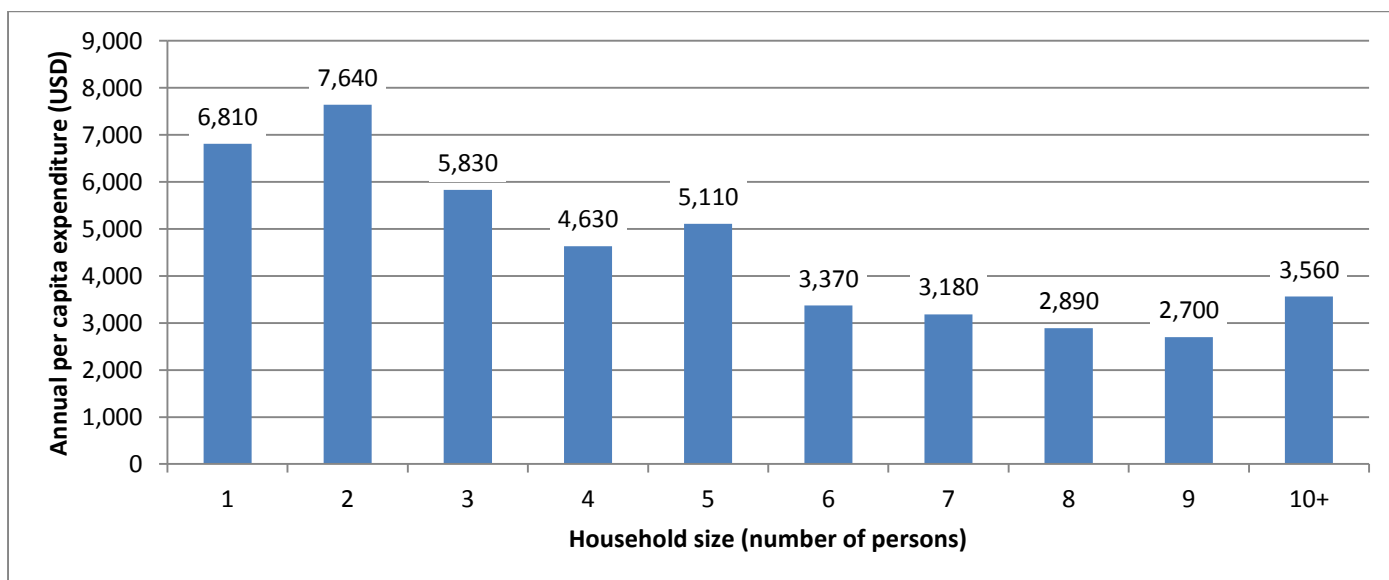


Figure 19: Household average monthly total expenditure per capita by household size (in USD).

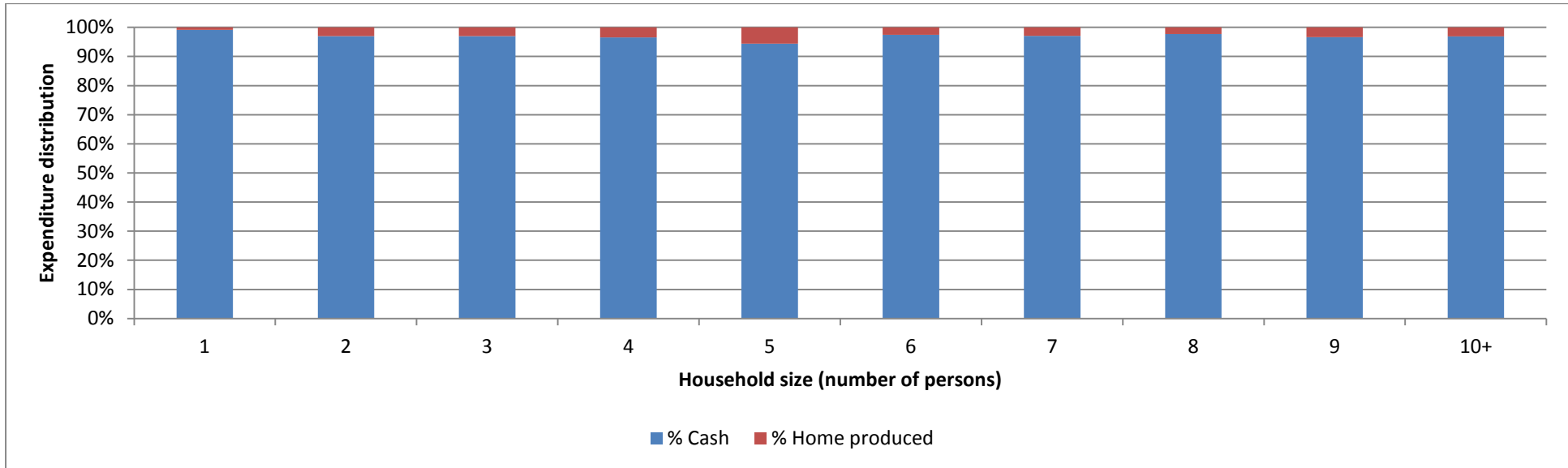


Figure 20: Composition of total expenditure by household size (%).

Table 23: Distribution of household expenditure by divisions (COICOP and non-consumption) and household size (%).

Expenditure category	Household size										Total
	1	2	3	4	5	6	7	8	9	10+	
101. Food and non-alcoholic beverages	20.5%	19.4%	20.6%	23.2%	23.1%	22.9%	19.1%	18.5%	22.0%	18.9%	21.0%
102. Alcoholic beverages and tobacco	5.0%	4.3%	5.0%	5.2%	4.9%	5.5%	6.7%	4.5%	4.6%	3.5%	4.9%
103. Clothing and footwear	4.5%	2.7%	3.3%	4.6%	5.2%	3.3%	3.3%	2.5%	6.9%	3.2%	3.9%
104. Housing and utilities	15.8%	14.4%	13.9%	12.4%	11.4%	12.5%	10.7%	10.0%	12.0%	10.4%	13.2%
105. Furnishings, equipment and maintenance	2.9%	4.4%	4.5%	3.9%	4.2%	4.7%	4.0%	8.0%	3.1%	4.6%	4.1%
106. Health	1.0%	1.5%	1.4%	2.3%	1.7%	1.4%	0.6%	0.7%	1.5%	3.1%	1.6%
107. Transportation	11.1%	14.2%	14.1%	12.2%	12.0%	16.8%	16.9%	17.5%	17.1%	19.0%	13.8%
108. Communication	6.4%	4.1%	3.5%	4.1%	4.5%	3.8%	3.8%	5.7%	5.4%	4.0%	4.4%
109. Recreation and culture	2.4%	2.6%	2.6%	2.6%	3.6%	3.0%	2.1%	1.8%	1.3%	2.6%	2.7%
110. Education	0.1%	0.6%	1.8%	2.7%	2.0%	2.0%	3.3%	4.3%	0.4%	2.5%	1.6%
111. Restaurants and hotels	3.1%	2.8%	3.0%	2.5%	2.6%	1.2%	1.5%	1.6%	1.9%	1.5%	2.5%
112. Miscellaneous goods and services	8.6%	8.0%	8.7%	8.8%	8.8%	7.0%	9.2%	7.4%	12.1%	6.5%	8.3%
Non-consumption expenditure	17.4%	16.8%	15.6%	13.4%	15.4%	14.9%	11.8%	13.8%	10.0%	10.2%	15.1%
Investment expenditure	1.3%	4.2%	2.2%	2.2%	0.6%	0.8%	7.0%	3.7%	1.6%	9.9%	2.8%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

The proportion of expenditure for “transportation” increases as household size increases, while “housing and utilities” and “non-consumption expenditure” decline as household size increases — again, an example of economies of scale. The proportion of expenditure for other expenditure categories remains relatively steady across all household sizes.

Table 24: Distribution of households by household head characteristics.

Sex	Household heads	Age	Household heads	Occupation status	Household heads
Male	3,985	< 30	500	Work for money - employee	4,115
Female	1,961	30–39	1,103	Work for money – other	213
		40–49	1,588	Work – no money	136
		50–59	1,302	Retired	1,021
		60–69	871	Home duties	258
		70 +	582	No work - other	203
Total	5,946	Total	5,946	Total	5,946

Some 67% of identified heads of households are male, mostly between the ages of 40 and 49; 75% of household heads are part of the labor force (Table 24).

Table 25: Distribution of households by income quintiles and sex of household head.

Income quintile	Household heads			Distribution		
	Male	Female	Total	Male	Female	Total
Quintile 1	710	462	1,172	17.8%	23.8%	19.8%
Quintile 2	777	409	1,186	19.5%	21.0%	20.0%
Quintile 3	841	350	1,191	21.1%	18.0%	20.1%
Quintile 4	845	344	1,188	21.2%	17.7%	20.0%
Quintile 5	812	378	1,190	20.4%	19.5%	20.1%
Total	3,985	1,943	5,927	100.0%	100.0%	100.0%

While there are more male heads of households, there is a lower proportion of male heads of households in lower quintiles than in higher quintiles (18% in quintile 1, 20% in quintile 5). The reverse occurs for female heads households, where there is a higher proportion of female heads of households in quintile 1 than quintile 5 (Table 25).

There is no set definition of a household head, which is selected by the household, however it does appear that female heads of households have a higher frequency of falling into the lower income categories than male heads of households.

Table 26: Total and average annual household expenditure and percentage by expenditure division and sex of household head.

Expenditure category	Total (USD '000)			Average household (USD)			Distribution (%)		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
01. Food and non-alcoholic beverages	12,870	5,650	18,520	3,230	2,880	3,110	20.7%	22.0%	21.0%
02. Alcoholic beverages and tobacco	3,100	1,210	4,300	780	620	720	5.0%	4.7%	4.9%
03. Clothing and footwear	2,260	1,140	3,400	570	580	570	3.6%	4.4%	3.9%
04. Housing and utilities	7,990	3,650	11,640	2,010	1,860	1,960	12.8%	14.2%	13.2%
05. Furnishings, equipment and maintenance	2,500	1,120	3,620	630	570	610	4.0%	4.4%	4.1%
06. Health	980	410	1,390	250	210	230	1.6%	1.6%	1.6%
07. Transportation	9,370	2,820	12,190	2,350	1,440	2,050	15.0%	10.9%	13.8%
08. Communication	2,650	1,260	3,910	670	640	660	4.3%	4.9%	4.4%
09. Recreation and culture	1,650	700	2,350	410	360	400	2.7%	2.7%	2.7%
10. Education	990	430	1,410	250	220	240	1.6%	1.7%	1.6%
11. Restaurants and hotels	1,480	700	2,190	370	360	370	2.4%	2.7%	2.5%
12. Miscellaneous goods and services	5,470	1,880	7,340	1,370	960	1,240	8.8%	7.3%	8.3%
Non-consumption	8,970	4,340	13,300	2,250	2,210	2,240	14.4%	16.9%	15.1%
Investment	2,010	430	2,430	500	220	410	3.2%	1.7%	2.8%
Total	78,230	32,970	111,200	15,630	13,110	14,800	100.0%	100.0%	100.0%

Households headed by males spend 5% more than the national average, while households headed by females spend 10% less than the national average. Male-headed households spend 20% more than female-headed households, on average (Table 26).

Male-headed households spend significantly more on “transport”, “miscellaneous goods and services” and “investment”, while female-headed households allocate more income towards “housing and utilities” and “non-consumption” expenditure.

Until the age range of >70, average annual household expenditure increases as the age range of household heads increases. Households headed by a person in the 60–69 age range spend 3.5 times more than a young head of household (<30). As the age of the household head increases, it is apparent that expenditure on “housing and utilities” and “health” increases (including imputed rents), while expenditure on “food and non-alcoholic beverages”, “alcohol and tobacco” and “clothing and footwear” decreases. It appears that middle-aged (i.e. those between ages 40 and 69) have higher “non-consumption” expenditure than other age classes (Table 27).

Surprisingly, households headed by people involved in “home duties” reported an average annual expenditure that is slightly lower than those who are “employees, working for pay”. Also surprising is that household heads who reported “working without pay” reported higher average expenditure than “employees” and only slightly less than those reporting “working for pay – other” (Table 28). This is indicative that the head of household may not be the main household income earner. However, when we look at the main activity of household heads, we see that the majority are “employees”, which is potentially contrary to the previous statement (Figure 21).

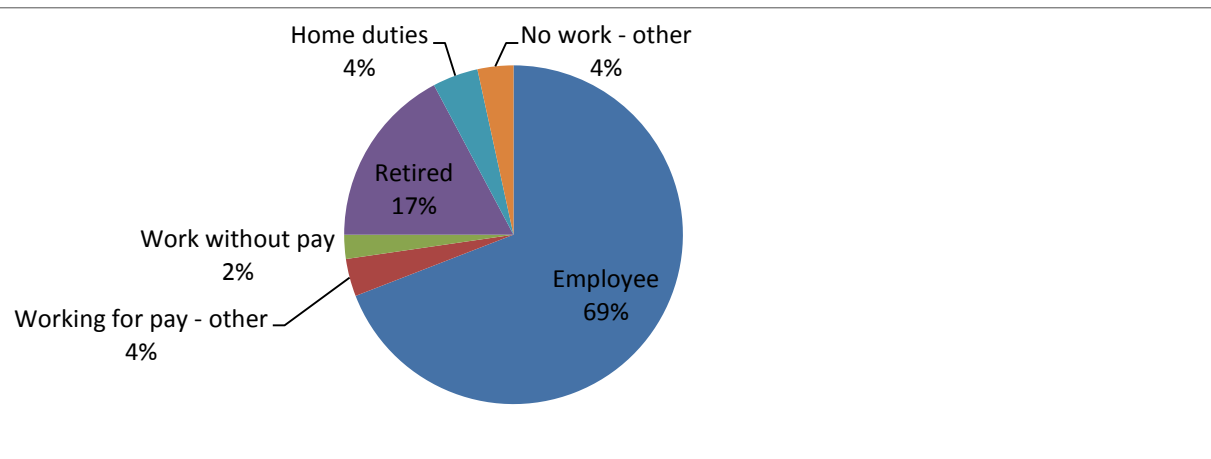


Figure 21: Main activities of household heads.

There is a high number of single heads of households who live in workers barracks (26% of the total population) and it is likely that these households are skewing the average annual household expenditure of households that are employees.

Table 27: Average annual household expenditure (USD) and percentage expenditure division by age of household head.

Expenditure division	Age of household head						Grand total	Age of household head (%)						Grand total
	<30	30-39	40-49	50-59	60-69	>70		<30	30-39	40-49	50-59	60-69	>70	
101. Food and non-alcoholic beverages	1,570	2,280	3,150	3,460	4,020	3,820	3,110	24.1%	21.7%	22.6%	20.3%	19.4%	20.4%	21.0%
102. Alcoholic beverages and tobacco	360	640	790	810	720	820	720	5.5%	6.0%	5.7%	4.8%	3.5%	4.4%	4.9%
103. Clothing and footwear	420	550	530	610	680	590	570	6.5%	5.3%	3.8%	3.6%	3.3%	3.1%	3.9%
104. Housing and utilities	980	1,470	1,910	2,010	2,400	3,070	1,960	15.1%	14.0%	13.7%	11.9%	11.5%	16.4%	13.2%
105. Furnishings, equip. and maintenance	130	330	510	630	1,030	1,120	610	2.1%	3.1%	3.7%	3.7%	5.0%	6.0%	4.1%
106. Health	20	150	180	160	590	350	230	0.3%	1.4%	1.3%	1.0%	2.9%	1.9%	1.6%
107. Transportation	860	1,470	1,480	2,650	3,130	2,750	2,050	13.3%	14.0%	10.7%	15.6%	15.1%	14.7%	13.8%
108. Communication	440	600	630	720	770	720	660	6.8%	5.7%	4.6%	4.2%	3.7%	3.8%	4.4%
109. Recreation and culture	190	280	390	440	610	390	400	2.9%	2.6%	2.8%	2.6%	2.9%	2.1%	2.7%
110. Education	30	140	280	320	310	170	240	0.5%	1.4%	2.0%	1.9%	1.5%	0.9%	1.6%
111. Restaurants and hotels	360	290	370	310	470	520	370	5.5%	2.7%	2.6%	1.8%	2.3%	2.8%	2.5%
112. Miscellaneous goods and services	540	1,150	1,230	1,330	1,590	1,270	1,240	8.4%	11.0%	8.8%	7.8%	7.6%	6.8%	8.3%
Non-consumption expenditure	540	1,110	2,280	2,600	3,570	2,890	2,240	8.4%	10.5%	16.4%	15.3%	17.2%	15.5%	15.1%
Investment expenditure	40	60	160	930	850	240	410	0.7%	0.5%	1.2%	5.5%	4.1%	1.3%	2.8%
Total	6,500	10,500	13,900	16,990	20,740	18,710	14,800	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Table 28: Average annual household expenditure (USD) and percentage by division and work status of household head.

Expenditure division	Employment status of household head (USD)							Employment status of household head (%)						
	Work for pay		Work without pay	Retired	Home duties	No work - other	Total	Work for pay		Work without pay	Retired	Home duties	No work - other	Total
	Employee	Other						Employee	Other					
101. Food and non-alcoholic beverages	2,830	3,990	4,390	3,890	2,740	3,640	3,110	21.9%	15.0%	16.3%	20.0%	26.4%	25.1%	21.0%
102. Alcoholic beverages and tobacco	670	1,360	650	800	570	930	720	5.2%	5.1%	2.4%	4.1%	5.5%	6.4%	4.9%
103. Clothing and footwear	520	1,060	900	750	230	440	570	4.0%	4.0%	3.4%	3.9%	2.2%	3.0%	3.9%
104. Housing and utilities	1,630	4,210	3,250	2,630	1,750	2,200	1,960	12.6%	15.9%	12.1%	13.5%	16.9%	15.2%	13.2%
105. Furnishings, equipment and maintenance	470	1,130	1,230	1,010	400	620	610	3.7%	4.2%	4.6%	5.2%	3.9%	4.3%	4.1%
106. Health	150	160	150	600	80	510	230	1.1%	0.6%	0.5%	3.1%	0.8%	3.5%	1.6%
107. Transportation	1,640	4,660	7,950	2,660	1,390	1,360	2,050	12.7%	17.6%	29.6%	13.7%	13.4%	9.3%	13.8%
108. Communication	620	1,260	670	730	600	530	660	4.8%	4.7%	2.5%	3.7%	5.8%	3.7%	4.4%
109. Recreation and culture	340	820	1,100	470	300	290	400	2.7%	3.1%	4.1%	2.4%	2.9%	2.0%	2.7%
110. Education	220	350	890	240	210	140	240	1.7%	1.3%	3.3%	1.2%	2.0%	0.9%	1.6%
111. Restaurants and hotels	340	900	520	440	140	230	370	2.6%	3.4%	1.9%	2.3%	1.4%	1.6%	2.5%
112. Miscellaneous goods and services	1,210	1,680	1,200	1,470	480	1,020	1,240	9.4%	6.3%	4.5%	7.5%	4.7%	7.0%	8.3%
Non-consumption expenditure	1,980	2,560	2,330	3,350	1,470	2,500	2,240	15.3%	9.6%	8.7%	17.2%	14.2%	17.2%	15.1%
Investment expenditure	300	2,410	1,600	420	0	120	410	2.4%	9.1%	6.0%	2.2%	0.0%	0.8%	2.8%
Total	12,930	26,550	26,830	19,450	10,360	14,530	14,800	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Household expenditure by area and dwelling type

In terms of population distribution, as per the demographic chapter, 83% of households live in urban areas (Koror and Airai), with the remainder living in rural areas (dwelling type was disaggregated by household and workers barracks). About 74% of dwellings are classified as households, with the remainder classified as workers barracks (Table 29).

Table 29: Distribution of households and population by area and dwelling type.

	Households		Population			Households		Population	
	No.	%	No.	%		No.	%	No.	%
Urban	4,961	83.4%	14,333	81.5%	Private dwelling	4,411	74.2%	15,942	90.7%
Rural	985	16.6%	3,247	18.5%	Barracks	1,535	25.8%	1,638	9.3%
Total	5,946	100.0%	17,580	100.0%	Total	5,946	100.0%	17,580	100.0%

Looking at expenditure by area and in consideration of the spatial population distribution, urban expenditure accounts for 85% of total household expenditure, with rural expenditure making up the rest (Table 30). Furthermore, households account for 90% of total household expenditure, which is in line with population distributions, with workers barracks making up the remainder.

Table 30: Total and average expenditure by area and dwelling type.

	Total	Annual average	%		Total	Annual average	%
	USD '000	USD			USD '000	USD	
Urban	74,600	15,040	84.8%	Private dwelling	78,880	17,880	89.6%
Rural	13,390	13,600	15.2%	Barracks	9,110	5,930	10.4%
Total	87,990	14,800	100.0%	Total	87,990	14,800	100.0%

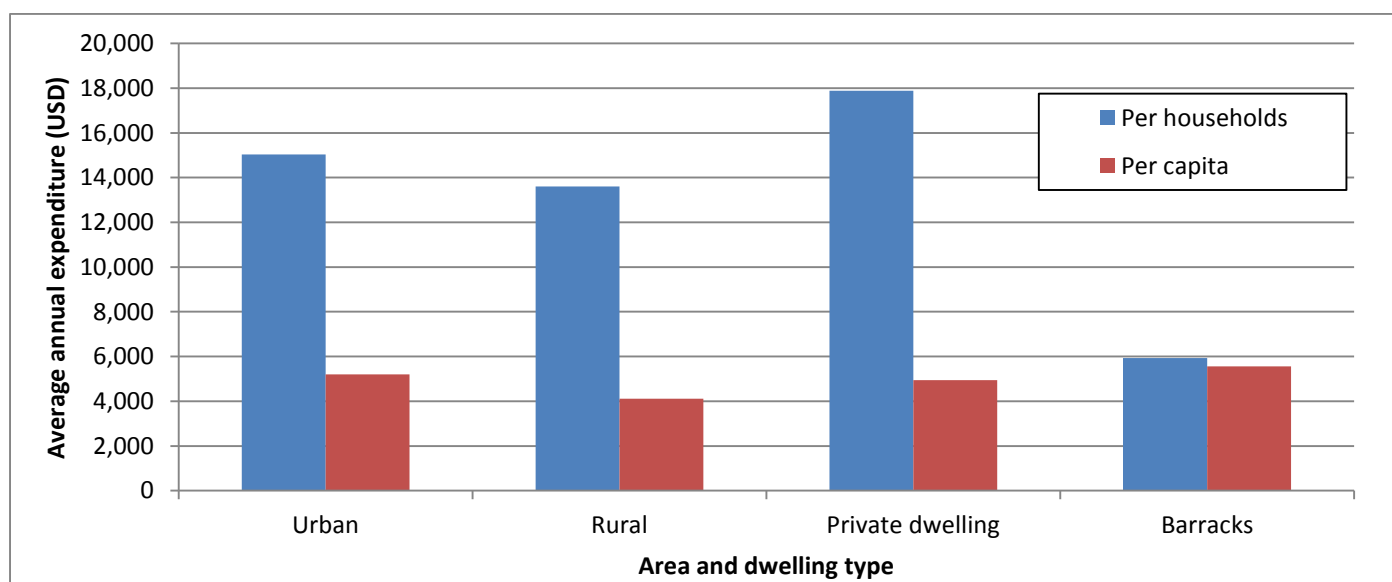


Figure 22: Annual average expenditure per household and per capita by area and dwelling type.

Section 4: Income analysis

Formation of main income categories

Section 4 of this report covers the analysis undertaken on the income and other receipts information collected during the 2014 HIES.

As with income, a main consideration to the development of this chapter was how best to classify the data collected in order to provide the most meaningful results to users.

1. **Income from employment:** Comprises receipts for participation in economic activities in a strictly employment-related capacity. It consists of two components:

1.1 **Employment income:** This comprises direct wages and salaries for time worked and work done, cash bonuses and gratuities, commissions and tips, directors' fees, profit-sharing bonuses and other forms of profit-related pay, remuneration for time not worked as well as free or subsidized goods and services from an employer. It may also include severance and termination pay as well as employers' social insurance contributions. These items should be reported separately, when included. Employee income may be received in cash (monetary) or in-kind as goods or services.

1.2 **Income from self-employment:** This is defined as income received by individuals, over a given reference period, as a result of their involvement in self-employment. In particular, income from self-employment concerns primarily owners of unincorporated enterprises who work in these enterprises. It excludes profits from capital investment of partners who do not work in these enterprises ("sleeping partners"), dividends and directors' fees paid to owners of incorporated enterprises. Income from self-employment includes the estimated value of goods and services produced for barter as well as goods produced for own consumption, less expenses.

2. **Property income and income from capital:** Property income is defined as receipts that arise from the ownership of assets (return for use of assets) that are provided to others for their use. These are returns, usually monetary, from financial assets (interests, dividends), from non-financial assets (rents) and from royalties (return for services of patented or copyright material). Interest receipts are payments received from accounts with banks, building societies, credit unions and other financial institutions, certificates of deposit, government bonds or loans, securities, debentures and loans to non-household members. Dividends are receipts from investment in an enterprise in which the investor does not work. Pensions and annuities in the form of dividends from voluntary private insurance schemes are also included. Rents are payments received for the use of both unproduced assets (i.e. natural resources), such as land, and for produced assets, such as houses. Rents should be recorded net of expenses (i.e. they should be recorded and collected separately from other consumption expenditures, so they can be treated as both income and expenditure). Royalties are receipts from writings and rights to make use of inventions (i.e. patented or copyrighted materials).

3. **Income from household production for services of own consumption or imputed rents:** Income from household production of services for own consumption consists of the net estimated value of housing services provided by owner-occupied dwellings, of unpaid domestic services and of services from household consumer durables. These are services that fall under the general production boundary of the system of national accounts. Because of measurement issues, owner-occupied dwellings may be the only part of this component that could be included for now. The operational definition of this component should be clearly described when estimates for it are presented or included in estimates of the total income of households. The net estimated values of housing services from owner-occupied dwellings should be presented separately from estimates for other services. Estimates of the values of these services should be consistent with producing household income and household expenditure statistics when these are to be analyzed jointly.

4. **Transfer income:** Transfers are receipts for which the recipient does not give anything to the donor in direct return for the receipts. Transfers can consist of cash, goods or services. Current transfers are those that usually recur regularly (relative to the reference period used for income), tend to be small and are also mostly available for use during the reference period. Regarded as income are all current transfers received in cash and as goods as follows:

- (a) Social security pensions, insurance benefits and allowances generated from government-sponsored social insurance schemes (compulsory and/or legal schemes) such as pensions (including military and overseas pensions), unemployment benefits, and disability benefits;
- (b) Pensions and other insurance benefits from employer-sponsored social insurance schemes not covered by social security legislation (both funded and unfunded) such as education allowance, medical expenses;
- (c) Social assistance benefits from governments (universal or means-tested) that provide the same benefits as social security schemes but which are not provided for under such schemes;
- (d) Current transfers from non-profit institutions (e.g. charities, trade unions, religious bodies) in the form of regular gifts and financial support such as scholarships, union strike pay, union sickness benefits, relief payments;
- (e) Current transfers from other households in the form of family support payments (such as alimony, child and parental support), regular receipts from inheritances and trust funds, regular gifts, financial support or transfer in-kind of goods.

Transfer of housing services between households should be considered as income for the recipient household. Although income includes current transfers received in the form of services from governments and non-profit institutions (social transfers in-kind) and in the form of other services from households, the operational definition of income should exclude such transfers until methods exist for valuing them that are widely acceptable.

5. **Irregular gifts received and casual income:** As stated above, household income covers all receipts received by the household or by individual members of the household at annual or more frequent intervals. In the Pacific, many gifts are received by households, whether it is by other households or other community groups, on an ad hoc irregular basis. For this reason, a section in the tabulations has been included to cover such receipts, due to their significance. Any other receipts received by the household will also be covered in this section, and include things such as “birth allowance”, “funeral allowance”, “sale of motor vehicle”, “sale of other assets” and “inheritances”.

Note: All of these components will be addressed in the Income/Receipts analysis in this section, with the exception of “1.3 Income from household production for services of own consumption”. Only the estimated value of housing services provided by owner-occupied dwellings was collected in the survey, and the quality of these data is still under review (imputed rents).

Household income

Household income is derived from the following five categories:

1. Income from employment
2. Property income or capital
3. Transfer income
4. Casual income
5. Imputed rents

For each subcategory, finer level breakdowns for income analysis will be as follows.

1. **Income from employment:** The main categories included here are:

- 1.1 Wage and salary income
- 1.2 Income from own business (non-subsistence)
- 1.3 Subsistence income (agriculture)
- 1.4 Subsistence income (handicrafts)
- 1.5 Subsistence income (livestock)
- 1.6 Subsistence income (fishing)
- 1.7 Home production consumed

An effort has also been made to separate the main subsistence activities into four main activities: fisheries, agriculture, livestock and other (covers home processed food and handicrafts). While it will be seen that not a great deal of money will be collected from these sectors, they still play a very significant role in the lives of Palauans in terms of consuming what is collected and produced and gift sharing among households, especially in the fisheries sector.

2. **Property income and income from capital:** As discussed above, property income is income that arises from the ownership of assets. This category has been divided into the two major types of property income:

- 2.1 Home rental
- 2.2 Other income from capital (dividends, interests, royalties)

In the questionnaire on income, land lease was actually collected under “other property income”, whereas in the tabulations to follow, “other property income” will comprise interest from financial institutions overseas, interest from money lending, and dividends.

3. **Transfer income:** As discussed above, transfer income covers receipts for which the recipient does not give anything to the donor in direct return for the receipts. Transfer income does not have a major impact on the roles of Palauans, but it has still been divided into four subcategories, based on level of interest:

- 3.1 Remittances
- 3.2 Pensions
- 3.3 Scholarship
- 3.4 Other transfers (Palau and overseas)

4. **Irregular gifts received and casual income**

As stated above, this section addresses cash and gifts that are received by households, whether it is from another household or other community group, on an ad hoc irregular basis. The categories of most relevance to Palau, which are covered in this section, are:

- 4.1 Casual income (sale of assets, inheritance)
- 4.2 Items received for free as a gift (bought items)

4.3 Items received for free as a gift (home produced items)

Type of income

To add further value to the analysis, effort has been made throughout the survey to determine how income was received. Seven main categories have been created to establish the manner in which income was received:

1. Cash income
2. Home production consumed
3. In-kind receipts – bought goods and services (purchased for the benefit of another household)
4. In-kind receipts – home production given away
5. Imputed rents
6. Intermediate expenditure
7. In-kind income

Further explanations for each are provided below.

Cash income

Cash income accounts for most of the income that households receive because it accounts for the majority of wage and salary income, business income, and sales of home production. All receipts from property income and transfer income will also be classified as a cash income source.

Home production income

Home production income only covers the value of home production that the household produces and consumes. If the household sells the home produce it is categorized as a cash income because cash was generated from the sale.

In-kind receipts

This type of income is similar as the one described on the expenditure analysis. All goods given away are treated as an expenditure and income, and can come from a cash purchase or home production (for the benefit of another household).

Imputed rents

Imputed rents are treated as income and expenditure.

Intermediate expenditure

Even if this is not an income, such expenditures allow for the estimation of net income for business activities and subsistence activities. Equipment is not considered as intermediate expenditure but household investment is (see in the expenditure analysis).

In-kind income

In-kind income covers any income received by the household which was not in the form of cash. For wage and salary, this would entail the employer paying the household member, in full or partially, with a gift in-kind instead of cash. For the section in the tables addressing “Irregular Gifts Received & Other Receipts”, the component “ad hoc gifts received” will also be categorized as a form of in-kind income.

Income analysis — main tables and graphs

Distribution of household income and receipts by major category

Figure 23 shows the distribution of household income across each of the major categories collected during the survey. The analysis clearly shows that income from “employment” is the most important source of income, accounting for 65% of the total household income. This income includes all wages and salary income (90%), household business (8%), home production (1%), and subsistence activities for cash (1% distributed across agriculture, fishing, livestock and handicrafts).

The next major category contributing to household income is “income from transfer”, which includes social benefits and pensions (88% of this category), grants and scholarships (5%), remittances received (4%) and alimony and other transfers (2%).

The group “casual income” is a mix of all in-kind gifts received by households (96% of this category) and the casual cash income made from the sale of assets or from inheritance (4%).

“Income from capital” consists of home rental and land lease monies received by owners (87%), royalties, sale of bonds, and interests (collectively 13%).

More details on key contributors to some of these groups can be found later in this section.

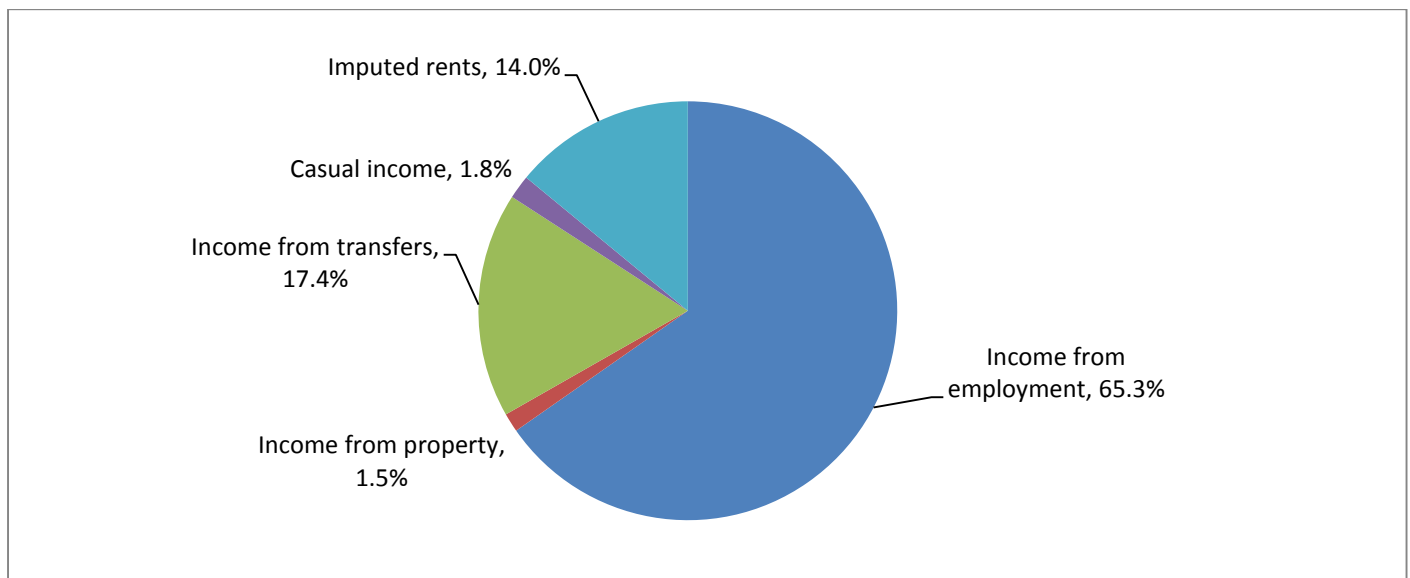


Figure 23: Distribution of household total income by major category.

Figure 24 presents the breakdown of the total household income by type of income. Total household income in Palau reached USD 152 million in 2014. Cash income is the main income type, accounting for 80% of the total household income. Imputed rents follow (14%), with the remaining 5% distributed across income in-kind from employer (3%), gifts received (27%) and home production consumed by the household (1%).

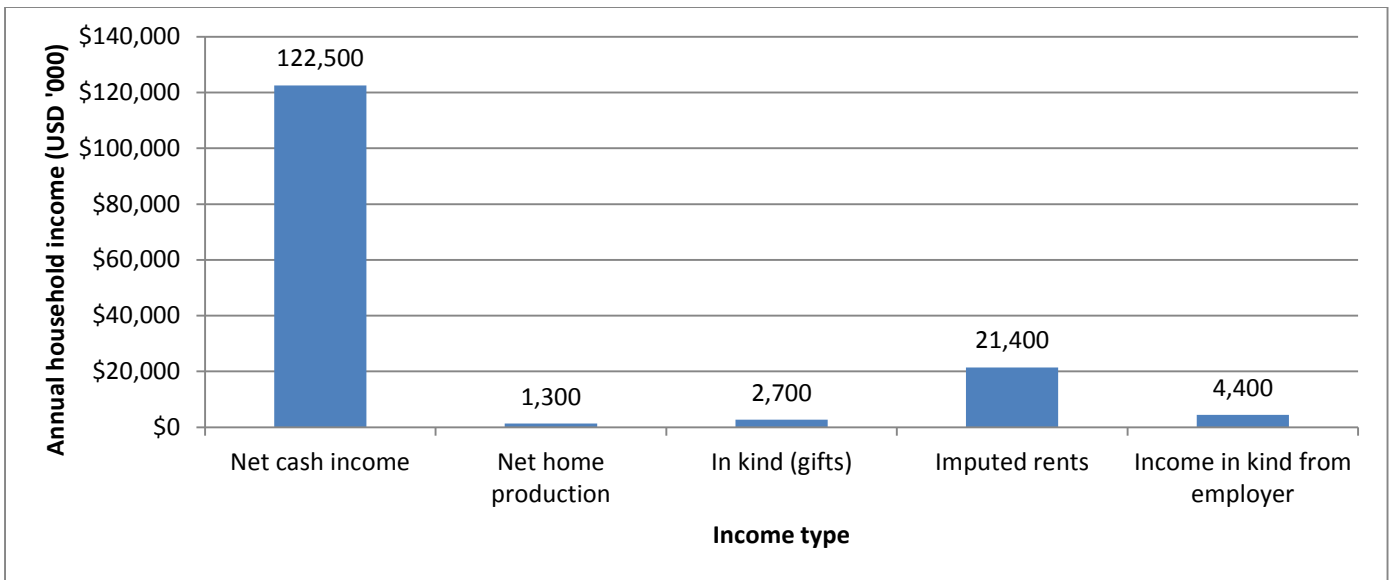


Figure 24: Total household income by type of income (in USD '000).

Figure 25 focuses on “cash income” only. More than 69% of household cash income comes from wage jobs, and almost 22% from regular transfers (mainly pension and some remittances). Cash income from household non-subsistence activities ranks third at more than 7% (sale of fish, agricultural items, livestock or handicrafts). Income from property and casual income (2%) contribute less to the household’s cash income.

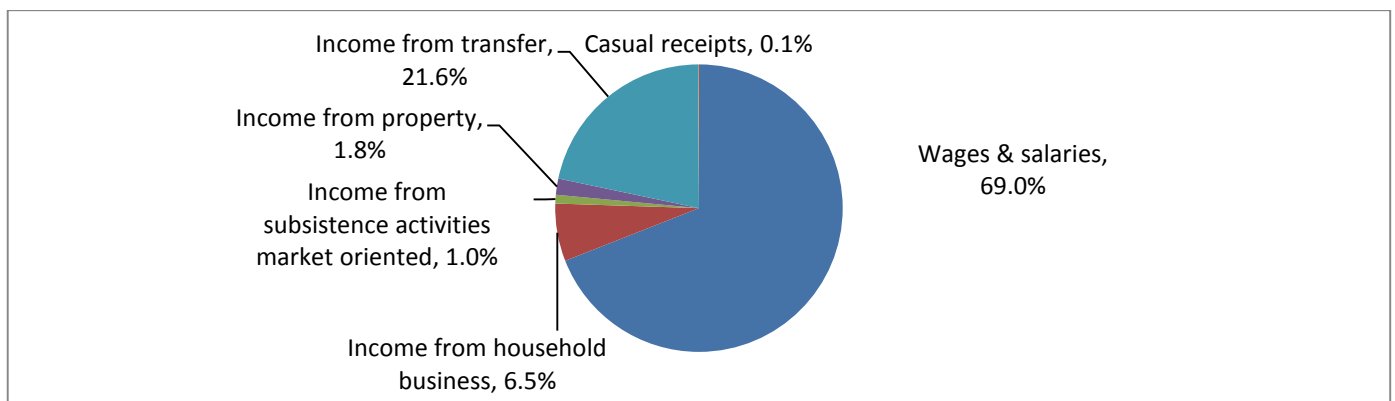


Figure 25: Distribution of cash income by major category (%).

Annual income amounts by category and type

Tables 31, 32 and 33 show the actual dollar amounts received by households in Palau (including workers barracks) by income category and type.

Table 31 shows that households in Palau had a total household income of just above USD 152 million in 2014 (included imputed rents).

Table 31: Total annual household income by income category and income type (in USD '000).

	Cash amount	Home production	In-kind (gifts)		Imputed rents	In-kind	TOTAL
			bought goods	home prod goods			
Wages & salaries	84,590	-	-	-	-	4,370	88,960
Income from business activities	7,940	-	-	-	-	-	7,940
Subsistence agriculture	710	-	-	-	-	-	710
Subsistence - fishing	230	-	-	-	-	-	230
Subsistence - livestock	110	-	-	-	-	-	110
Subsistence handicraft	150	-	-	-	-	-	150
Home production	-	1,300	-	-	-	-	1,300
Income from employment	93,730	1,300	-	-	-	4,370	99,390
Home rental	1,900	-	-	-	-	-	1,900
Other income from capital	330	-	-	-	-	-	330
Income from capital	2,230	-	-	-	-	-	2,230
Cash remittances in country	150	-	-	-	-	-	150
Cash remittances overseas	850	-	-	-	-	-	850
Other transfer income	25,460	-	-	-	-	-	25,460
Income from transfer	26,460	-	-	-	-	-	26,460
Casual receipts	120	-	-	-	-	-	120
In-kind gifts (bought)	-	-	1,930	-	-	-	1,930
In-kind gifts (home produced)	-	-	-	740	-	-	740
Casual income	120	-	1,930	740	-	-	2,780
Imputed rents	-	-	-	-	21,350	-	21,350
Income from imputed rents	-	-	-	-	21,350	-	21,350
TOTAL	122,530	1,300	1,930	740	21,350	4,370	152,220

Converted to average annual household amounts, Table 32 shows that households in Palau had an average annual total household income of USD 25,600 in 2014. The employment income component of this amount was USD16,720, of which, wage and salary accounted for USD 14,960 (cash and in-kind grouped). In terms of cash income, households in Palau earned USD 20,610, on average.

Table 32: Average annual household income by income category and income type (in USD)¹⁰.

	Cash amount	Home production	In-kind (gifts)		Imputed rents	In-kind	TOTAL
			bought goods	home prod goods			
Wages & salaries	14,230	-	-	-	-	730	14,960
Income from business activities	1,340	-	-	-	-	-	1,340
Subsistence agriculture	120	-	-	-	-	-	120
Subsistence - fishing	40	-	-	-	-	-	40
Subsistence - livestock	20	-	-	-	-	-	20
Subsistence handicraft	30	-	-	-	-	-	30
Home production	-	220	-	-	-	-	220
Income from employment	15,760	220	-	-	-	730	16,720
Home rental	320	-	-	-	-	-	320
Other income from capital	60	-	-	-	-	-	60
Income from capital	380	-	-	-	-	-	380
Cash remittances in country	30	-	-	-	-	-	30
Cash remittances overseas	140	-	-	-	-	-	140
Other transfer income	4,280	-	-	-	-	-	4,280
Income from transfer	4,450	-	-	-	-	-	4,450
Casual receipts	20	-	-	-	-	-	20
In-kind gifts (bought)	-	-	320	-	-	-	320
In-kind gifts (home produced)	-	-	-	120	-	-	120
Casual income	20	-	320	120	-	-	470
Imputed rents	-	-	-	-	3,590	-	3,590
Income from imputed rents	-	-	-	-	3,590	-	3,590
TOTAL	20,610	220	320	120	3,590	730	25,600

¹⁰ Tables 32 and 33 are average household and per capita income respectively. They were calculated as the total aggregated annual household income (Table 31) divided by the population (households = 5,946 for Table 32; persons = 17,580 for Table 33). Note that Table 31 is reported in USD'000 and that all tables have been rounded, so there may be slight differences due to rounding.

Finally, when these figures are converted to per capita household income per year (Table33), on average, one person's income is estimated to be USD 8,660 per year, of which, employment income accounts for USD 5,650.

Table 33: Average annual per capita income by income category and income type (in USD).

	Cash amount	Home production	In-kind (gifts)		Imputed rents	In-kind	TOTAL
			bought goods	home prod goods			
Wages & salaries	4,810	-	-	-	-	250	5,060
Income from business activities	450	-	-	-	-	-	450
Subsistence agriculture	40	-	-	-	-	-	40
Subsistence - fishing	10	-	-	-	-	-	10
Subsistence - livestock	10	-	-	-	-	-	10
Subsistence handicraft	10	-	-	-	-	-	10
Home production	-	70	-	-	-	-	70
Income from employment	5,330	70	-	-	-	250	5,650
Home rental	110	-	-	-	-	-	110
Other income from capital	20	-	-	-	-	-	20
Income from capital	130	-	-	-	-	-	130
Cash remittances in country	10	-	-	-	-	-	10
Cash remittances overseas	50	-	-	-	-	-	50
Other transfer income	1,450	-	-	-	-	-	1,450
Income from transfer	1,510	-	-	-	-	-	1,510
Casual receipts	10	-	-	-	-	-	10
In-kind gifts (bought)	-	-	110	-	-	-	110
In-kind gifts (home produced)	-	-	-	40	-	-	40
Casual income	10	-	110	40	-	-	160
Imputed rents	-	-	-	-	1,210	-	1,210
Income from imputed rents	-	-	-	-	1,210	-	1,210
TOTAL	6,970	70	110	40	1,210	250	8,660

Distribution of household employment income by detailed category

The following section shows the percentage distribution of employment income through different characteristics:

- 1) Employment income (breakdown through the main category of this group)
- 2) Focus on home production consumed
- 3) Focus on the subsistence activities (livestock, agriculture, fishing and handicraft) cash oriented
- 4) Wage and salary (by industry)
- 5) Household business (by industry) provided.

The total annual amount from that household income group is listed for each income category along with the contribution of that group to total household income to assist with putting things in perspective.

Employment income

Total annual employment income: USD 99 million

Percentage contribution to household income: 65%

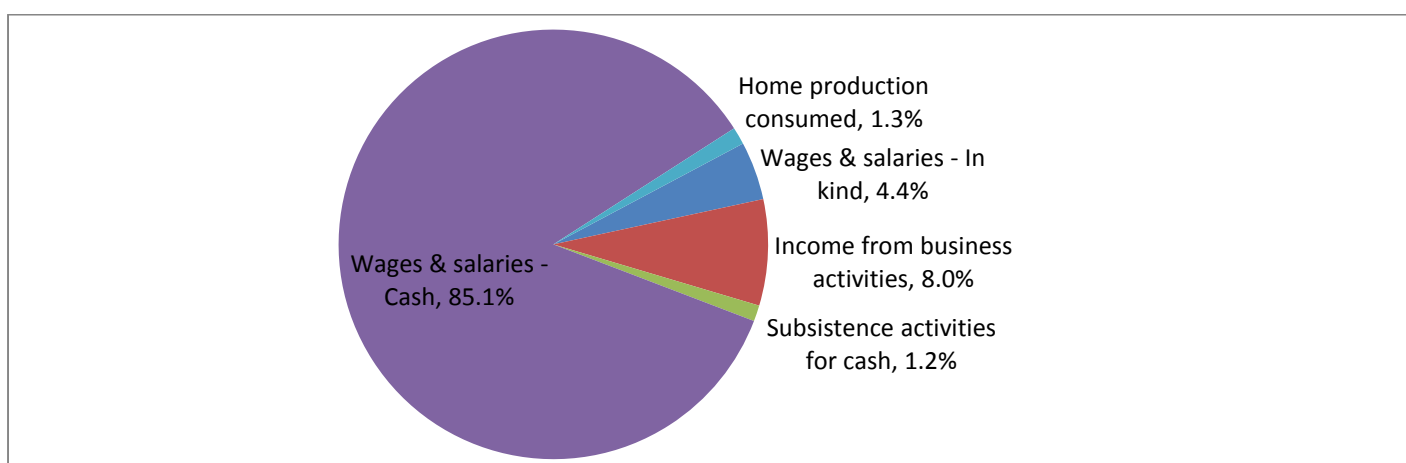


Figure 26: Percentage contribution of main types of employment income to total employment income.

Home production consumed

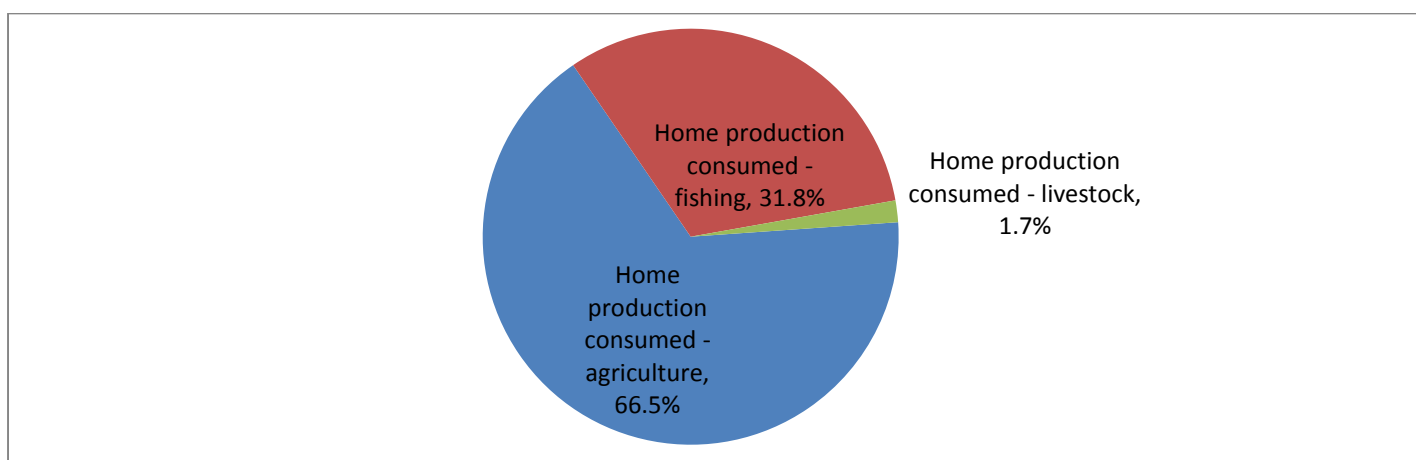
Total annual gross¹¹home production income: USD 1.8 million

Total annual intermediate expenditure related to home production consumed: USD 590,000

Total annual net home production income: USD 1.3 million

Percentage contribution to employment income: 1%

Percentage contribution to total household income: 1%



¹¹Gross income is not reported elsewhere as intermediate expenditure is deducted to report net income. Net income equates to gross income less intermediate expenditure.

Figure 27: Percentage contribution of main types of subsistence items in total home production consumed.

Subsistence activities for cash

Total annual gross¹²subsistence activities cash oriented income: USD 1.9 million

Total annual intermediate subsistence activities cash oriented: USD 730,000

Total annual net subsistence cash oriented: USD 1.2 million

Percentage contribution to employment income: 1%

Percentage contribution to total household income: 1%

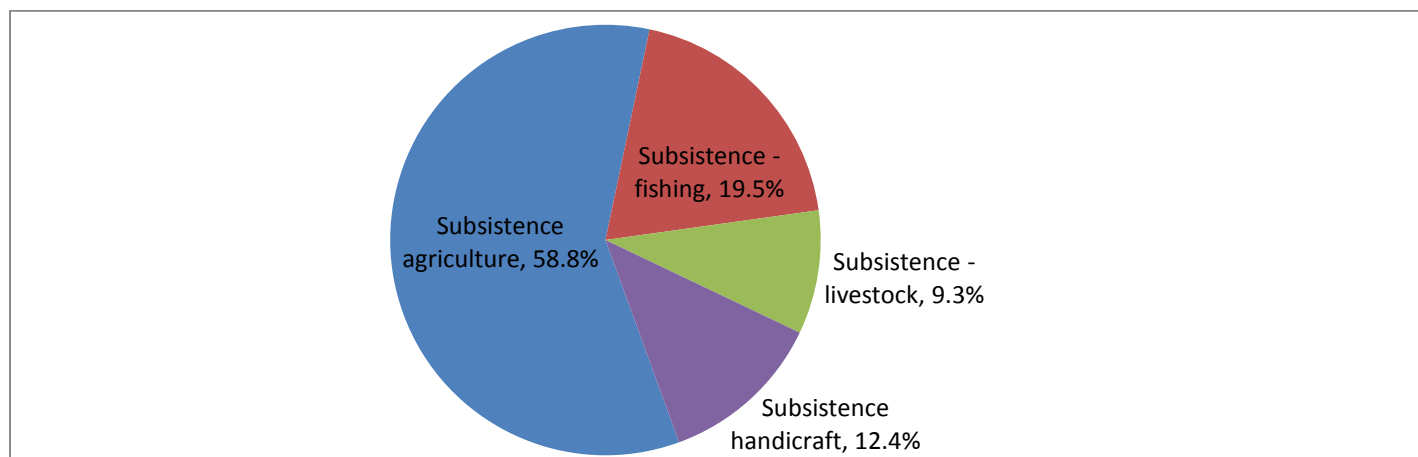


Figure 28: Percentage contribution of main types of subsistence for cash activities in total subsistence for cash income.

Wages and salaries

Total annual wage and salary cash income: USD 89 million

Percentage contribution to employment income: 89%

Percentage contribution to total household income: 58%

¹²Gross income is not reported elsewhere as intermediate expenditure is deducted to report net income. Net income equates to gross income less intermediate expenditure.

Table 34: Total wage and salary income by industry (in USD '000).

Industry	Cash		In-kind		Total wages and salaries
	Based salary	Bonus	Housing	Other in-kind	
Agriculture	330	-	10	-	340
Fishing	740	10	20	20	790
Quarrying	170	-	-	-	170
Electricity, gas, steam & air conditioning supply	2,180	30	80	20	2,310
Water supply, waste management, remediation activities	180	-	-	-	180
Construction	2,220	-	220	70	2,510
Wholesale & retail trade, repair of motor vehicles	9,810	180	420	230	10,650
Transportation & storage	1,540	20	10	20	1,590
Accommodation and food service activities	10,530	250	570	620	11,990
Information & communication	2,140	20	40	80	2,290
Financial & insurance activities	1,130	-	-	20	1,160
Real estate activities	110	-	-	-	110
Professional, scientific & technical activities	1,710	-	-	-	1,710
Administrative & support service activities	5,680	40	720	290	6,720
Public administration & defence	27,810	370	60	180	28,430
Education	7,120	-	90	20	7,230
Human health & social work	6,260	10	-	-	6,280
Arts, entertainment & recreation	610	-	50	-	660
Other services activities	1,970	50	220	100	2,340
Activities of households as employer	670	-	120	70	860
Activities of extraterritorial organizations	630	20	-	-	640
TOTAL	83,570	1,020	2,610	1,760	88,960

Household business

Total annual gross¹³household business income: USD 14.7million

Total annual intermediate expenditure related to household business: USD 6.7 million

Total annual net household business income: USD 7.9 million

Percentage contribution to employment income: 8%

Percentage contribution to total household income: 5%

Table 35: Total household business gross income by industry (in USD).

Industry	Gross income
Construction	5,397,500
Wholesale and retail trade, repair of motor vehicles	1,677,700
Transportation and storage	27,300
Accommodation and food service activities	2,167,000
Financial and insurance activities	497,900
Real estate activities	1,455,300
Professional, scientific and technical activities	533,600
Administrative and support service activities	794,400
Human health and social work	1,053,800
Arts, entertainment and recreation	470,000
Other services activities	639,600
Total gross income from household business	14,714,100

¹³Gross income is not reported elsewhere as intermediate expenditure is deducted to report net income. Net income equates to gross income less intermediate expenditure.

Table 36: Household business net income (in USD).

	Amount
TOTAL GROSS INCOME FROM HOUSEHOLD BUSINESS	14,714,100
TOTAL OPERATING COSTS (HOUSEHOLD BUSINESS)	6,774,700
TOTAL NET INCOME – HOUSEHOLD BUSINESS	7,939,400

Distribution of household income by category and type

Tables 37 and 38 show the distribution of each income category and income type with respect to the total income.

Table 37 shows the percentage contribution within each of the main broad household income types: “employment income”, “property income” and “transfer income”, as well as for the grouping “casual income”. Wages and salaries in cash income contribute 85% to the total employment income; an additional 5% comes from income in-kind and other benefits from employers, which total 90% in of wages and salaries to employment income.

Table 37: Distribution of household income within group by income category by income type.

	Cash amount	Home production	In-kind (gifts)		Imputed rents	In-kind	Total
			bought goods	home prod goods			
Wages & salaries	85.1%	-	-	-	-	4.4%	89.5%
Income from business	8.0%	-	-	-	-	-	8.0%
Subsistence agriculture	0.7%	-	-	-	-	-	0.7%
Subsistence - fishing	0.2%	-	-	-	-	-	0.2%
Subsistence - livestock	0.1%	-	-	-	-	-	0.1%
Subsistence handicraft	0.1%	-	-	-	-	-	0.1%
Home production	-	1.3%	-	-	-	-	1.3%
Income from employment	94.3%	1.3%	-	-	-	4.4%	100.0%
Home rental	85.4%	-	-	-	-	-	85.4%
Other income from capital	14.6%	-	-	-	-	-	14.6%
Income from capital	100.0%	-	-	-	-	-	100.0%
Cash remittances in country	0.6%	-	-	-	-	-	2.2%
Cash remittances overseas	3.2%	-	-	-	-	-	15.7%
Other transfer income	96.2%	-	-	-	-	-	82.1%
Income from transfer	100.0%	-	-	-	-	-	100.0%
Casual receipts	4.2%	-	-	-	-	-	4.2%
In-kind gifts (bought)	-	-	69.3%	-	-	-	69.3%
In-kind gifts (home produced)	-	-	-	26.5%	-	-	26.5%
Casual income	4.2%	-	69.3%	26.5%	-	-	100.0%
Imputed rents	-	-	-	-	100.0%	-	100.0%
Income from imputed rents	-	-	-	-	100.0%	-	100.0%
TOTAL	80.5%	0.9%	1.3%	0.5%	14.0%	2.9%	100.0%

Table 38 shows the percentage contribution to the overall total for the household income groups.

As the information is now expressed as percentages of the overall total, the figures are somewhat smaller than those presented in Table 37. For example, income from home rental may represent 85% of total property income, as can be seen in Table 37, but as illustrated in Table 38, this income only represents 1% of total income and receipts.

Table 38: Distribution of household income by income category and income type.

	Cash amount	Home production	In-kind (gifts)		Imputed rents	In-kind	TOTAL
			bought goods	home prod goods			
Wages & salaries	55.6%	-	-	-	-	2.9%	58.4%
Income from business	5.2%	-	-	-	-	-	5.2%
Subsistence agriculture	0.5%	-	-	-	-	-	0.5%
Subsistence - fishing	0.2%	-	-	-	-	-	0.2%
Subsistence - livestock	0.1%	-	-	-	-	-	0.1%
Subsistence handicraft	0.1%	-	-	-	-	-	0.1%
Home production	-	0.9%	-	-	-	-	0.9%
Income from employment	61.6%	0.9%	-	-	-	2.9%	65.3%
Home rental	1.2%	-	-	-	-	-	1.2%
Other income from capital	0.2%	-	-	-	-	-	0.2%
Income from capital	1.5%	-	-	-	-	-	1.5%
Cash remittances in country	0.1%	-	-	-	-	-	0.1%
Cash remittances overseas	0.6%	-	-	-	-	-	0.6%
Other transfer income	16.7%	-	-	-	-	-	16.7%
Income from transfer	17.4%	-	-	-	-	-	17.4%
Casual receipts	0.1%	-	-	-	-	-	0.1%
In-kind gifts (bought)	-	-	1.3%	-	-	-	1.3%
In-kind gifts (home produced)	-	-	-	0.5%	-	-	0.5%
Casual income	0.1%	-	1.3%	0.5%	-	-	1.8%
Imputed rents	-	-	-	-	14.0%	-	14.0%
Income from imputed rents	-	-	-	-	14.0%	-	14.0%
TOTAL	80.5%	0.9%	1.3%	0.5%	14.0%	2.9%	100.0%

Percentage of households with certain types of income and/or receipts

The analysis presented in Table 39 provides information on what proportion of households actually received each income and/or receipt group and type. As would be expected, the majority of households surveyed reported some cash income from a current wage and salary job (88%), and 95% received income from employment. Other sources of income are minor compared with wages and salary. Wages and salaries are a very widespread source of income compared with business (4% of the households), home production for consumption (38%), and pensions (33%).

In addition, 47% of households received some sort of gift for free from other households (mainly food), which highlights the importance of the exchange and solidarity within Palauan communities.

Table 39: Percentage of households with income by income category and income type.

	Cash amount	Home production	In-kind (gifts)		Imputed rents	In-kind	TOTAL
			bought goods	home prod goods			
Wages & salaries	87.8%	-	-	-	-	38.7%	87.8%
Income from business	3.6%	-	-	-	-	-	3.6%
Subsistence agriculture	3.9%	-	-	-	-	-	3.9%
Subsistence - fishing	4.2%	-	-	-	-	-	4.2%
Subsistence - livestock	2.1%	-	-	-	-	-	2.1%
Subsistence handicraft	1.6%	-	-	-	-	-	1.6%
Home production	-	36.4%	-	-	-	-	38.3%
Income from employment	91.0%	36.4%	-	-	-	38.7%	94.9%
Home rental	2.8%	-	-	-	-	-	2.8%
Other income from capital	1.3%	-	-	-	-	-	1.3%
Income from capital	3.9%	-	-	-	-	-	3.9%
Cash remittances in country	2.4%	-	-	-	-	-	2.4%
Cash remittances overseas	5.6%	-	-	-	-	-	5.6%
Other transfer income	33.4%	-	-	-	-	-	33.4%
Income from transfer	37.2%	-	-	-	-	-	37.2%
Casual receipts	1.0%	-	-	-	-	-	1.0%
In-kind gifts (bought)	-	-	37.2%	-	-	-	37.2%
In-kind gifts (home produced)	-	-	-	15.7%	-	-	15.7%
Casual income	1.0%	-	37.2%	15.7%	-	-	46.7%
Imputed rents	-	-	-	-	80.0%	-	80.0%
Income from imputed rents	-	-	-	-	80.0%	-	80.0%
TOTAL	98.8%	36.4%	37.2%	15.7%	80.0%	38.7%	100.0%

Comparison of household income, 2006 vs 2014.

Table 40 presents the 2014 HIES income outputs using the 2006 income classification. Total income has increased by 62% over the period between the 2006 HIES¹⁴ and the 2014 HIES (eight years).

Table 40: Annual income and distribution of income, 2006 vs 2014 (in USD '000).

Source of income (based on 2006 classification)	2006		2014	
	Amount	%	Amount	%
Wages and salaries	54,250	58%	88,960	58.4%
Imputed rents	17,050	18%	21,350	14.0%
social security	9,000	10%	25,460	16.7%
Business income	2,870	3%	7,940	5.2%
Home consumption	1,980	2%	1,800	1.2%
Remittances	860	1%	1,000	0.7%
Subsistence activities	380		1,200	0.8%
Other income	7,400	8%	4,510	3.0%
Total	93,800	100%	152,220	100.0%

Note: As home consumption income has been estimated using the gross amount in 2006, the 2014 home consumption estimate is presented using gross amount (instead of net).

“Wages and salaries” are still the main source of income in 2014. The contribution of “imputed rents” declined by 3% and “social security” increased (due to the aging population of Palau getting more retired workers). The overall structure of the household income has not changed.

During the period 2006 to 2014, the average monthly household income (excluding imputed rents) increased by 4.27%, on average, annually while the consumer price index (CPI) increased by 4.17%, on average, annually (Table 41).

Table 41: Total household income in 2006 and 2014.

Indicator	2006	2014
Total income (excluding imputed rents)	USD 74,761	USD 130,870
Total number of households	4,744	5,946
Monthly average household income (excluding imputed rents)	USD 1,313	USD 1,834
Household monthly disposal income: annual growth rate 2006–2014	-	4.27%
CPI annual growth rate 2006–2014	-	4.17%

In order to compare the real disposable income of households in Palau between the 2006 HIES and the 2014 HIES, the price effect (change in cost of living due to CPI increase) has to be adjusted (as demonstrated in Table 42).

Table 42: Consumer price index adjusted household income in Palau converted to 2006 price (in USD) and annual real income growth rate (%).

Indicator	2006	2014
Total cash income price 2014	USD 1,313	USD 1,323
Annual growth rate between 2006 and 2014	-	0.1%

Table 42 shows the disposable household income in 2006 and 2014, according to the average CPI growth rate during that period; real household income slightly increased by 0.1% per year.

The results indicate that real household income, and therefore, household purchasing power, has not changed since 2006. Although income has increased by 62%, prices have increased by a similar amount, so household purchasing power has remained steady.

¹⁴ Palau 2006 HIES report, Palau Office of Planning and Statistics.

Total household income by income quintiles and deciles

Total income-excluded imputed rents in Palau in 2014 averaged USD 22,050 annually (Table 43). This average hides important inequalities between deciles such as the fact that households in the lowest decile (decile 1) earn on average USD 2,710 annually while better-off households (decile 10) earn on average 31 times more (USD 83,960).

Table 43: Annual and monthly average household total income (in USD) by deciles and quintiles.

Total income decile	Share of the total income	Average household income		Total income quintile	Share of the total income	Average household income	
		Annual	Monthly			Annual	Monthly
Decile 1	1%	2,710	230	Quintile 1	4%	4,090	340
Decile 2	2%	5,400	450				
Decile 3	3%	7,070	590	Quintile 2	7%	7,860	660
Decile 4	4%	8,630	720				
Decile 5	5%	11,490	960	Quintile 3	12%	13,350	1110
Decile 6	7%	15,200	1,270				
Decile 7	9%	19,890	1,660	Quintile 4	21%	23,410	1950
Decile 8	12%	26,950	2,250				
Decile 9	18%	38,760	3,230	Quintile 5	56%	61,340	5110
Decile10	38%	83,960	7,000				
Total	100%	22,050	1,840		100%	22,050	1,840

The top 10% of wealthy households in Palau receive 38% of the total household income (decile10), whereas the least wealthy 10% of households receive only 1% of the nation's total household income.

Table 44: Distribution of total household income (excluding imputed rents) by income type and total income deciles.

Decile	Net cash	Home production	Gifts	In-kind from employer	Total
Decile 1	79.5%	0.7%	4.7%	15.2%	100%
Decile 2	85.5%	0.0%	2.3%	12.2%	100%
Decile 3	88.8%	1.0%	2.2%	8.0%	100%
Decile 4	88.6%	0.8%	2.7%	7.9%	100%
Decile 5	89.9%	1.5%	1.8%	6.8%	100%
Decile 6	91.7%	2.4%	2.1%	3.8%	100%
Decile 7	93.1%	1.3%	1.9%	3.8%	100%
Decile 8	92.8%	1.7%	2.4%	3.1%	100%
Decile 9	95.7%	0.0%	2.7%	1.5%	100%
Decile 10	95.8%	1.0%	1.5%	1.8%	100%
Total	93.6%	1.0%	2.0%	3.3%	100%

Households in Palau highly depend on cash income because it represents almost 94% of the total income (excluded imputed rents). Better-off households (i.e. those in decile 6 and above) receive more than 90% from cash income. Home production is very low in all deciles and accounts for only 1% of the total income at the aggregated level. Table 44 highlights the importance of income in-kind received by low decile households that top up their income by more than 10% (e.g. from accommodations or utilities that are provided for free).

Table 45: Average annual income by quintiles (USD), and urban and rural areas (excluding imputed rents).

Quintile	Urban	Rural	National
Quintile1	4,180	3,530	4,070
Quintile2	7,870	7,680	7,840
Quintile3	13,510	12,830	13,390
Quintile4	24,670	18,960	23,730
Quintile5	63,650	46,100	60,720
Total	22,850	17,960	22,050
Median	13,200	12,870	13,190

Table 45 shows that the average annual income is 30% higher in urban areas than in rural areas (or nationally).

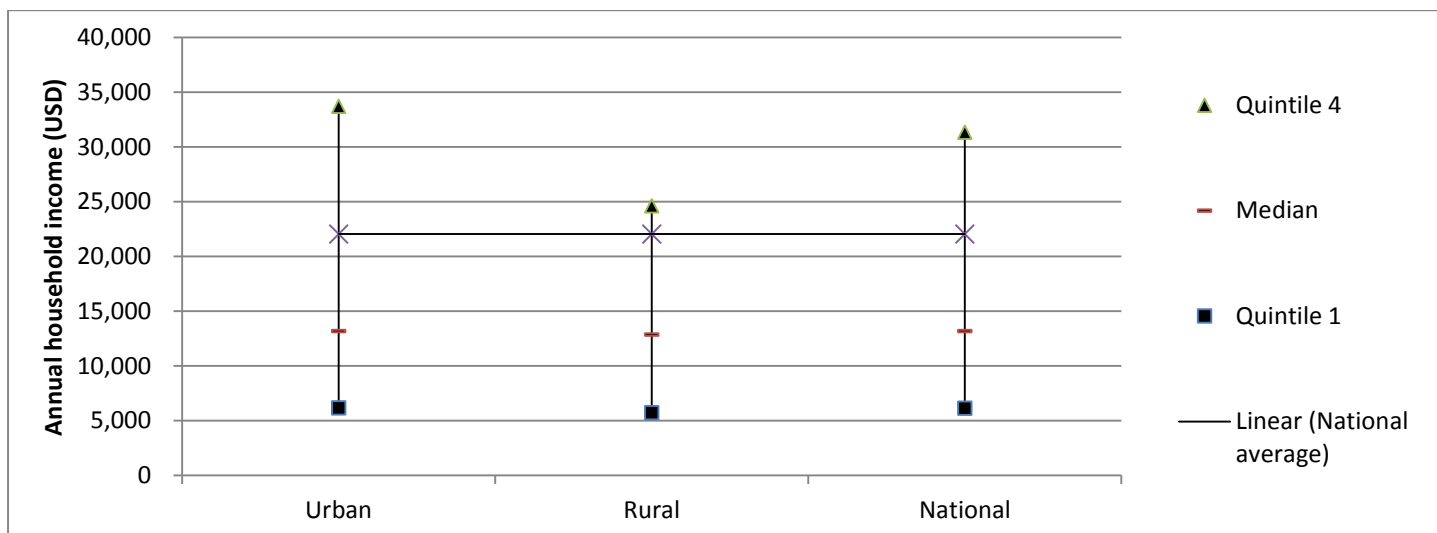


Figure 29: Annual income distribution by urban and rural areas (excluding imputed rents).

This annual average household income of USD 22,050 at the national level hides some inequalities, such as the fact that 70% of households do not reach this level. In 2014, 20% of households earned less than USD 6,160 per year (quintile 1). Figure 29 shows the similar situation in rural and urban areas for the bottom of the distribution. In urban Palau, 50% of households earn less than USD 13,200 annually (urban median), and in rural Palau 50% earn USD 12,870. However, at the top of the income distribution, the 20% richest household in urban get more than USD 31,350 a year and USD 24,600 in rural (level of quintile 4).

Household total income by household and head of household characteristics

At the national level, households headed by males earn on average 23% more than female-headed households (total net income excluding imputed rents) as show in Table 46. Half of male-headed household earn less than USD 13,720 and half of female-headed households earn less than USD 11,240 in a year (median).

Table 46: Average and median household annual income (in USD) and distribution (%) by sex of household head (excluding imputed rents).

	Male	Female	Difference	
			% (male/female)	
			(male - female)	
	USD	USD	%	
Average income	23,480	19,130	23%	4,350
Median income	13,720	11,240	22%	2,840
Total households	3,980	1,956	103%	2,024

About 9% of male-headed households earn less than USD 5,000 a year, and this proportion doubles with female-headed households (18%).

Table 47: Distribution of households by total annual income group and sex of household head (%).

Annual total income group (excluding imputed rents)	Male-headed household	Female-headed household	Total
Less than USD 5,000	8.7%	17.9%	11.7%
USD 5,000–9,999	29.2%	28.5%	29.0%
USD 10,000–29,999	39.9%	33.6%	37.8%
more than USD 30,000	22.2%	20.1%	21.5%
Total	100.0%	100.0%	100.0%

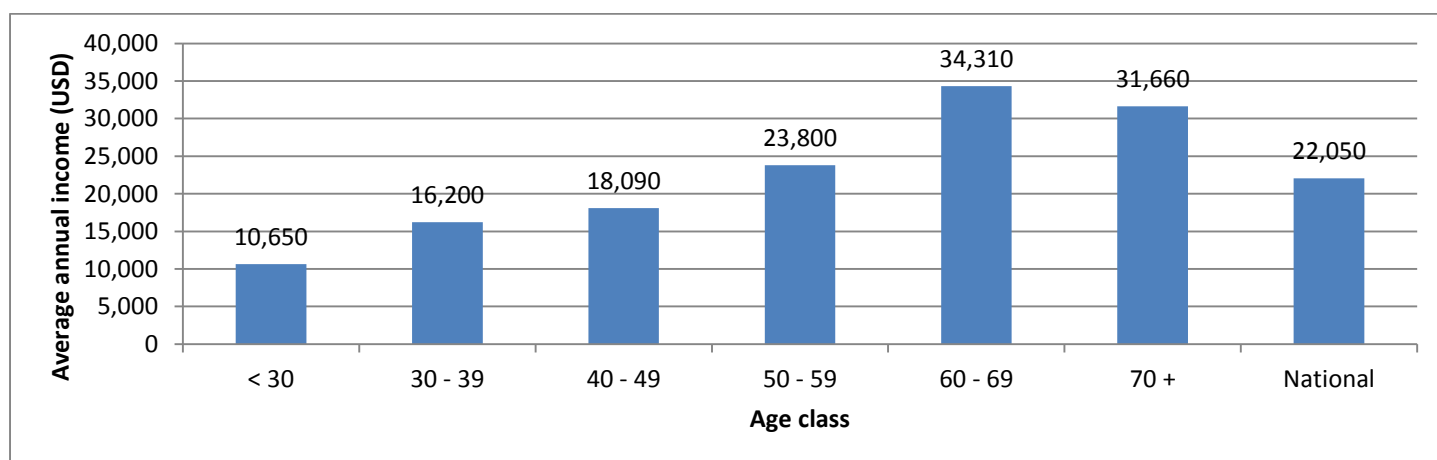


Figure 30: Average annual household total income (in USD, excluding imputed rents) by age group of household head.

Household income increases in households that are headed by an older adult (Fig. 30).

Figure 31 shows that the average annual income per capita in Palau is USD 7,700, and income per capita drops as the household size increases.

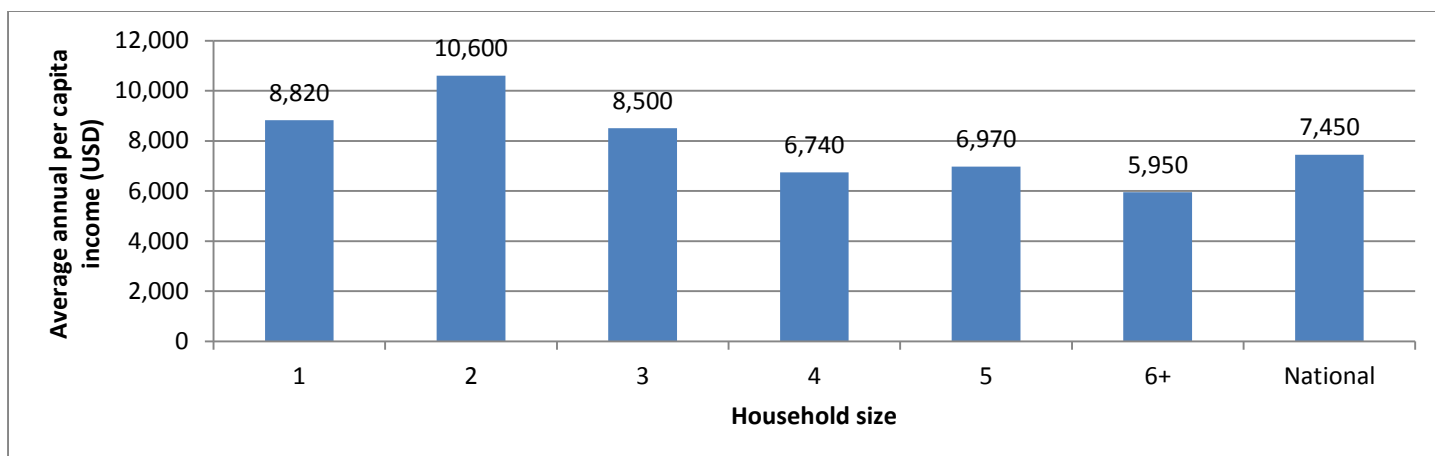


Figure 31: Average annual per capita income (excluding imputed rents) by household size (in USD).

Total household income by urban and rural areas

Urban households contribute 86% to the total household income and represent 83% of the households in Palau. There is no major difference in the composition of income between urban and rural households as they both highly depend on cash income. Home production is minor (only less than 1% of the income in rural area).

Table 48: Total income, average annual income (excluding imputed rents) and breakdown by type of income by state.

Area	Total annual household income		Average annual household income					Total
			Amount	Cash	Home production	Gifts	Income in-kind	
	USD '000	%						
Urban	113,260	86.5%	22,830	94.0%	2.6%	2.7%	0.7%	100.0%
Rural	17,610	13.5%	17,870	93.6%	0.7%	1.9%	3.7%	100.0%
National	130,870	100.0%	22,050	93.6%	1.0%	2.0%	3.3%	100.0%

Table 49 disaggregates income by urban and rural areas. “Wages and salaries” remain the main source of income in both urban and rural areas, but are more important for urban households (70%) than rural (56%). However, “other transfer income” (mainly pension) contributes more to the total income of rural households (as home production and subsistence activities market oriented).

Table 49: Total income disaggregated by income source and urban and rural area.

Income source	Urban		Rural		National	
	USD '000	%	USD '000	%	USD '000	%
Wages and salaries cash	74,900	66.1%	9,690	55.0%	84,590	54.9%
Wages and salaries in-kind	4,240	3.7%	130	0.7%	4,370	2.8%
Household business	6,600	5.8%	1,340	7.6%	7,940	5.2%
Subsistence - agriculture	220	0.2%	480	2.7%	710	0.5%
Subsistence - fishing	180	0.2%	50	0.3%	230	0.1%
Subsistence - livestock	40	0.0%	80	0.5%	110	0.1%
Subsistence - handicrafts	80	0.1%	70	0.4%	150	0.1%
Home production	840	0.7%	460	2.6%	1,300	0.8%
Income from capital	2,090	1.8%	140	0.8%	2,230	1.4%
Cash remittances in country	150	0.1%	0	0.0%	150	0.1%
Cash remittances overseas	500	0.4%	350	2.0%	850	0.6%
Other transfer income	21,120	18.6%	4,350	24.7%	25,460	16.5%
Casual receipts	120	0.1%	0	0.0%	120	0.1%

In-kind gifts (bought)	1,650	1.5%	280	1.6%	1,930	1.3%
In-kind gifts (home produced)	540	0.5%	200	1.1%	740	0.5%
Total	113,260	100.0%	17,610	100.0%	154,080	100.0%

Table 50: Percentage of urban and rural households that receive an income.

Income source	Urban	Rural	National
Wages and salaries cash	90.6%	73.7%	87.8%
Wages and salaries in-kind	44.9%	7.6%	38.7%
Household business	3.1%	6.4%	3.6%
Subsistence - agriculture	2.4%	11.3%	3.9%
Subsistence - fishing	3.4%	8.2%	4.2%
Subsistence - livestock	1.0%	8.0%	2.1%
Subsistence - handicrafts	1.0%	3.5%	1.4%
Home production	34.6%	57.0%	38.3%
Income from capital	4.4%	1.6%	3.9%
Cash remittances in country	2.9%	0.0%	2.4%
Cash remittances overseas	6.0%	3.7%	5.6%
Other transfer income	32.7%	37.0%	33.4%
Casual receipts	1.2%	0.0%	1.0%
In-kind gifts (bought)	40.1%	22.6%	37.2%
In-kind gifts (home produced)	13.7%	25.7%	15.7%

Almost 91% of urban households and 74% of rural households have at least one member involved in a wage job. Home production for own consumption is more common in rural areas (57% of households).

Table 51: Average annual income (in USD) of households, disaggregated by income source.

Income source	Urban	Rural	National
Wages and salaries cash	16,670	13,340	16,200
Wages and salaries in-kind	1,900	1,740	1,900
Household business	43,350	21,110	36,810
Subsistence - agriculture	1,830	4,320	3,070
Subsistence - fishing	1,070	620	930
Subsistence - livestock	620	1,020	870
Subsistence - handicrafts	1,580	2,020	1,760
Home production	490	820	570
Income from capital	9,500	8,890	9,500
Cash remittances in country	1,060	0	1,060
Cash remittances overseas	1,670	9,670	2,550
Other transfer income	13,040	11,930	12,830
Casual receipts	1,950	0	1,950
In-kind gifts (bought)	830	1,210	870
In-kind gifts (home produced)	790	790	790

In 2014, households that were involved in wage jobs earned on average USD 16,200 per year, which is not the highest income because households involved in business earned on average USD 36,810 per year. Only 6% of households in Palau received some remittances from overseas (on average USD 2,550). Pensions were received by 33% of the households in 2014, and the average pension was USD 12,830. Although nearly 40% of households

produce food items for their own consumption, the value is low because the estimated value of the amount they home produce is USD 570 per household per year.

Share of remittances in total household income

Remittances contribute 1% to the total household income in both urban and rural areas. About 8% of households received remittances in 2014 (USD 2,100 in addition to the annual cash budget for those households). In addition to the cash transfers received from other households (remittances) almost 40% of households bought items as a gift in-kind to give away to another household, and 15% of households gave away some home produced items (e.g. fruit, fish). In total, more than USD 2,600,000 was gifted in-kind to other households (through bought and home produced items) in 2014.

At the national level, 21% of the money transferred to Palauan households comes from a military person living overseas. Sons and daughters are the source of 66% of the remittances received by households in Palau, and 88% comes from overseas, mainly the United States (72% of the total amount).

Table 52: Profile of beneficiaries of cash remittances, and average annual amount (in USD) received, by household head characteristics.

Household head characteristics	Remittances beneficiary	Average annual amount received	
		%	USD
Area	Urban	8.9%	1,470
	Rural	3.7%	9,960
Sex	Male	6.9%	2,430
	Female	10.3%	1,640
Age group	< 30	13.4%	480
	30–39	4.8%	620
	40–49	5.1%	2,010
	50–59	7.0%	1,290
	60–69	11.2%	1,830
	70+	15.1%	5,440
Work status	Work for pay	5.8%	1,170
	Work no pay	5.9%	100
	Retired	14.5%	3,980
	No work (other)	15.2%	1,750
Total		8%	2,100

Almost 9% of urban households received remittances in 2014, and the average remittance was USD 1,470. In rural areas, fewer households received remittances (4%) but received a larger amount (almost USD 10,000 on average).

Female-headed households are more likely to receive remittances (10%) than male-headed households (7%). Financial support increases as the age of the household head increases. In 2014, households headed by a person aged 70 or older received (on average) a remittance of USD 5,440 compared with households headed by someone aged 30–39 where only USD 620 was received (Table 52). Around 15% of households headed by a retired person or someone who did not work (although perhaps did home duties) received financial support.

Inequality and Gini index

The distribution of income throughout the population demonstrates a high degree of income inequality (Fig. 21), with the poorest 50% of households in Palau accounting for only 16% of the total household income and 15% of the cash income. The Lorenz curve shows the distribution of the total income among households population in relation to equal income distribution, which is portrayed by the green line.

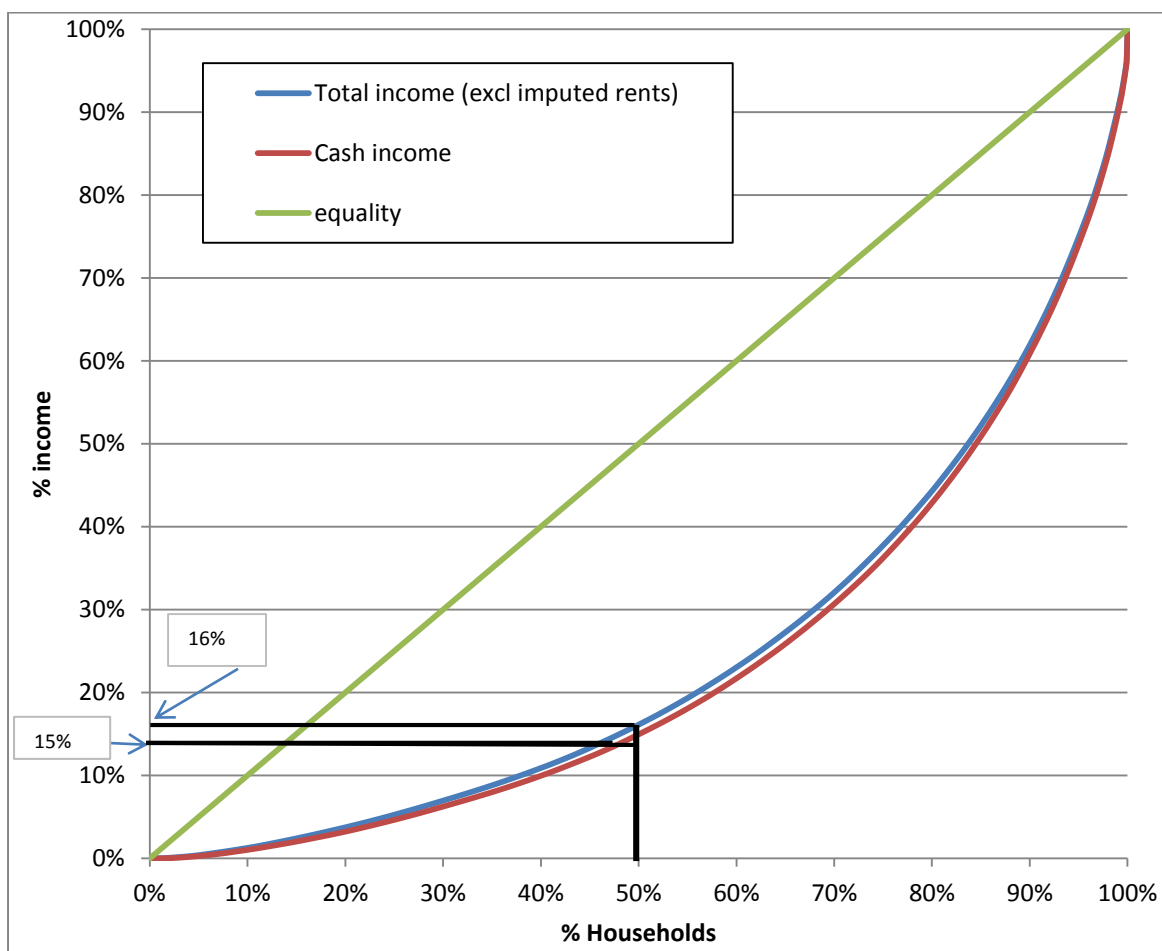


Figure 32: Lorenz curve – distribution of total income and cash income.

The Gini index summarizes the inequality in the household income illustrated by the Lorenz curve. This index ranges between 0 and 1, and the closer to 0 the more equal the income distribution (see equality on the straight line in Fig. 32). A Gini index of 0 means that all households earn the same amount and a Gini index of 1 means one household earns the total household income, with others receiving nothing.

Table 53: Gini index— total income vs cash income.

Income	Gini Index
Total income (excluding imputed rents)	0.51
Cash income	0.53

Inequality is higher with respect to cash income (because the Gini index is higher and as demonstrated in Fig. 32). The effect of home production and other income (income in-kind and gifts) reduces inequality when it comes to total income as presented in Table 53.

Table 54: Gini index – urban and rural comparison.

Income	Urban	Rural
Total income (excluded imputed rents)	0.51	0.47
Cash income	0.53	0.48

Income distribution is more equal in rural areas (Table 54 shows a lower Gini index in rural areas of Palau).

Section 5: Additional analysis

Comparison between income and expenditure

In 2014, Palauan households spent USD 85 million in cash and earned USD 122 million in cash. The difference between income and expenditure is about USD 37 million¹⁵.

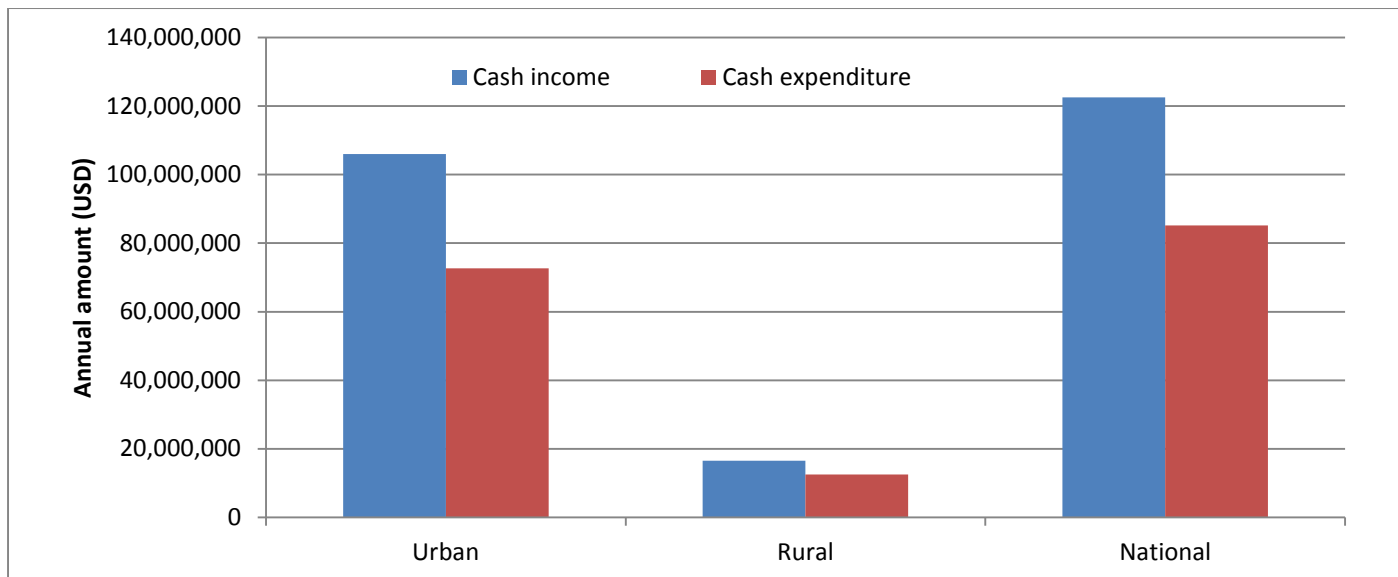


Figure 33: Cash income and cash expenditure (in USD) aggregates by area.

The difference between income and expenditure in urban areas is more than USD 33 million and only USD 4 million in rural areas. On average, the difference between income and expenditure in Palau is USD 6,300 a year per household (USD 6,700 in urban areas and USD 4,200 in rural areas).

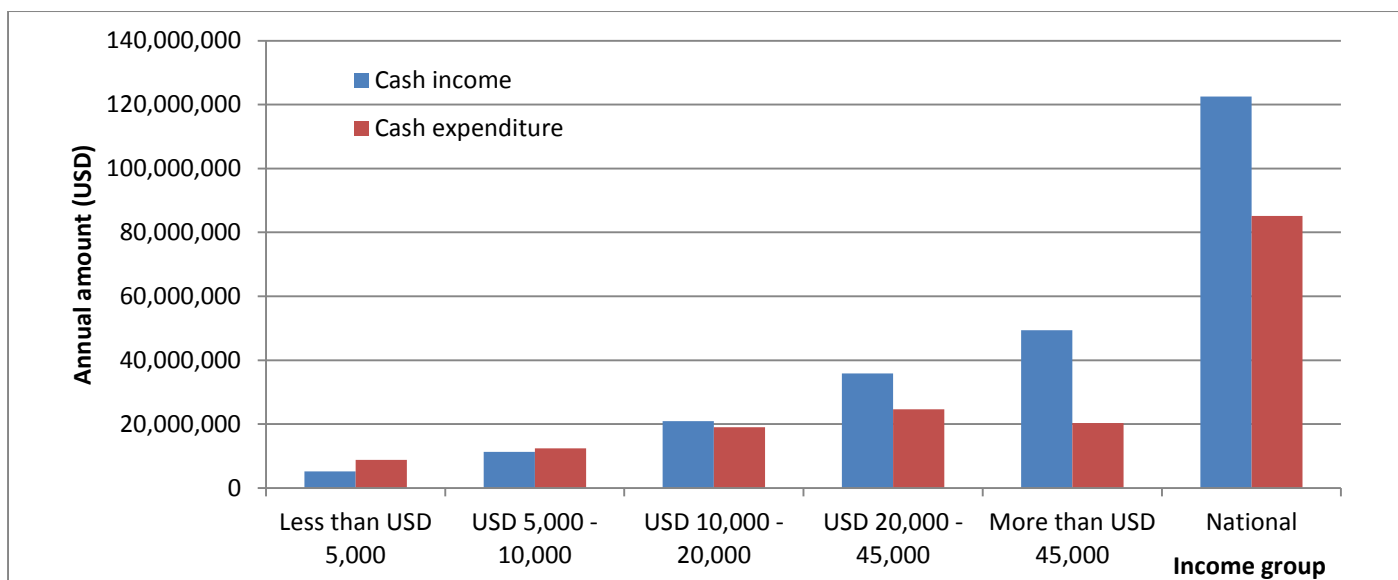


Figure 34: Cash income and cash expenditure (in USD) aggregates by income group.

Households reporting more than USD 10,000 in cash income per year have a higher expenditure, and the difference increases as the cash income increases. Figure 35 shows that one-third of households in the first

¹⁵ The difference between income and expenditure could be due to under-reporting of expenditure in the household diary. In the week two diary, there were fewer items recorded than in the first week, so it is possible that respondent fatigue resulted in low expenditure estimates.

income group (i.e. those that receive less than USD 5,000 a year) declared more income than expenditure, while 99% of households in the highest income group (i.e. those that receive more than USD 45,000 a year) declared more income than expenditure.

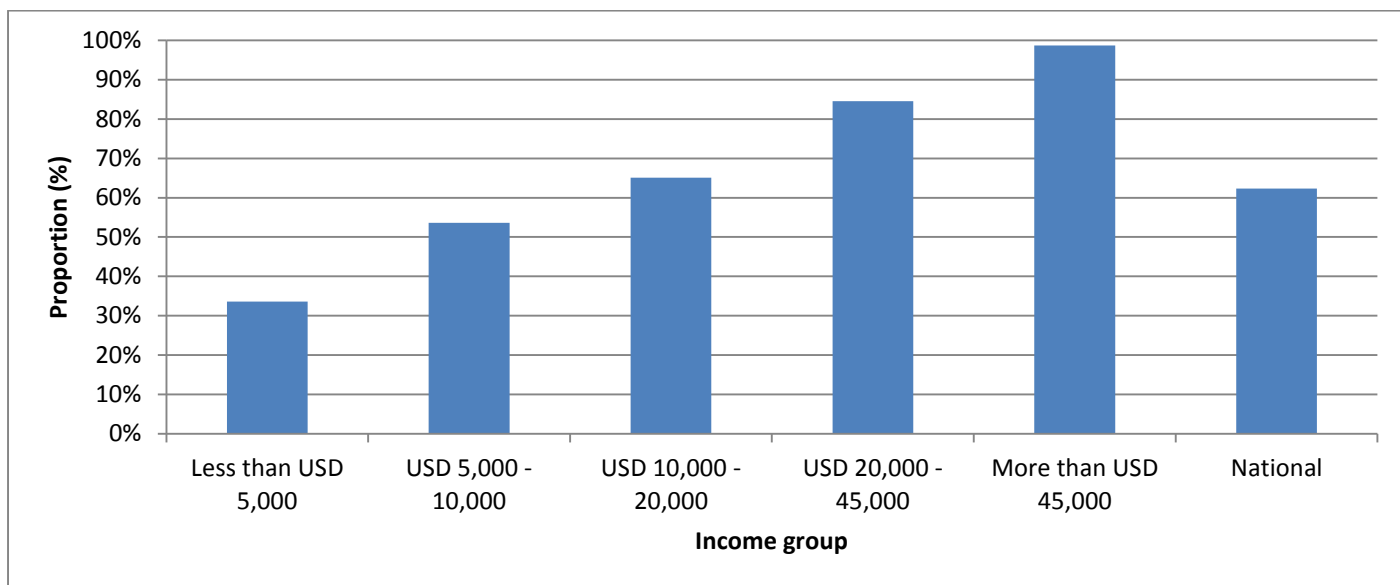


Figure 35: Proportion of households that reported more cash income than cash expenditure, by annual income group (in USD).

At the national level, 62% of the households declared more income than expenditure. Figure 36 compares income and expenditure through different variables: characteristics of the household head (gender, age and activity status) and household size.

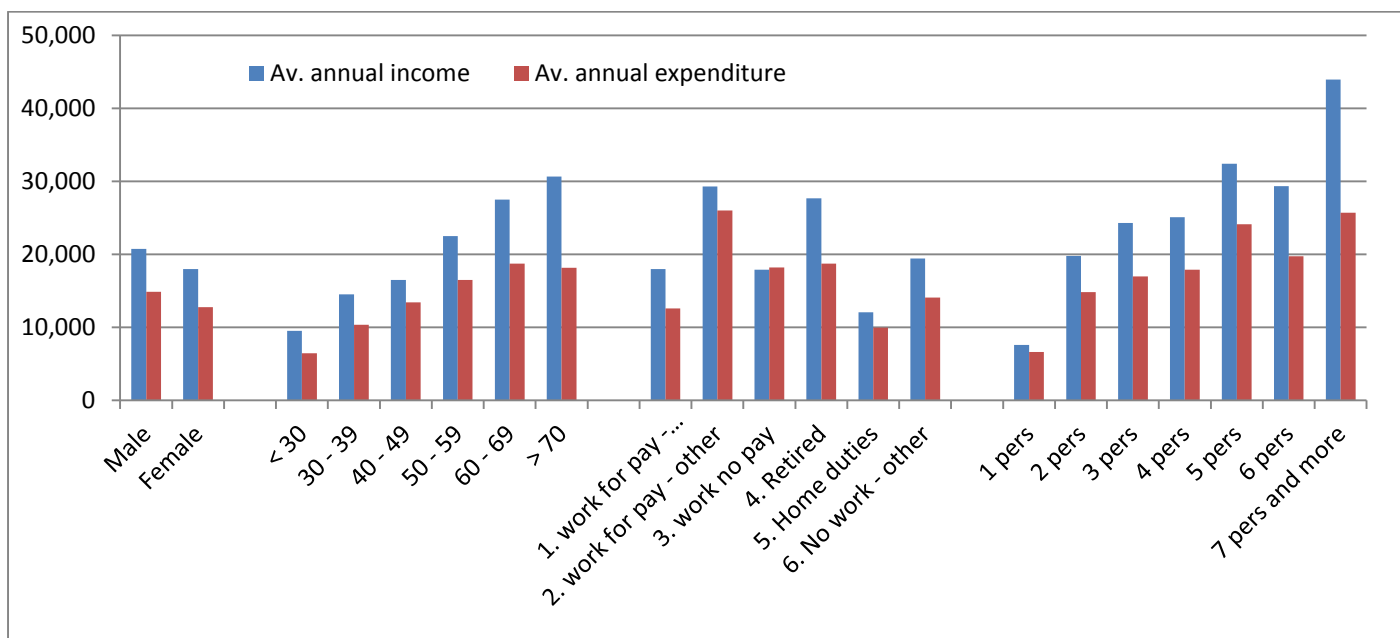


Figure 36: Comparison of average annual household cash income and cash expenditure by gender, age and occupation of the household head and household size (in USD).

Regarding the gender of the household head, average household income is higher than average expenditure for both sexes and is similar in all age groups. Households whose head who works for free (subsistence worker, home consumption oriented, or voluntary worker) on average spend more than they earn and receive on average USD17,900 a year and spend USD 18,200. In terms of household characteristics, the disaggregation by household

size highlights the higher average income for all sizes. Households consisting of more than seven people report a very high difference between income and expenditure, which might be explained by under-reporting of expenditure transactions in the diary (as the diary records expenditure at the household level).

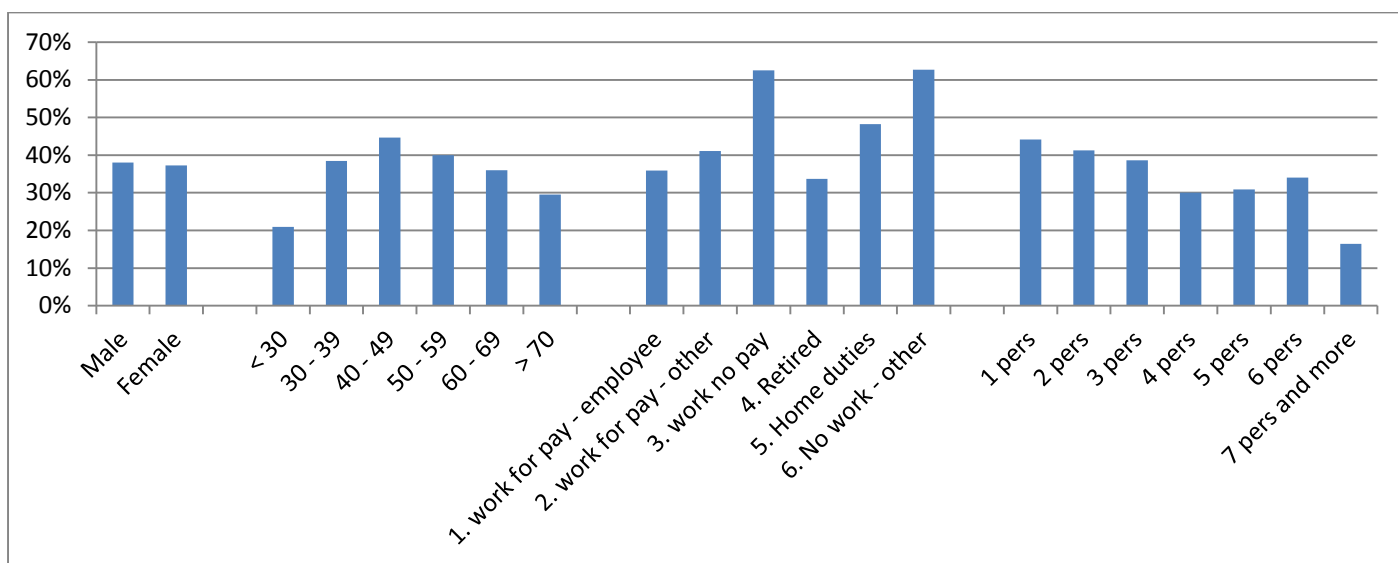


Figure 37: Proportion of households that reported more expenditure than income.

More than 60% of households headed by a worker who works for free (subsistence for home consumption or voluntary work) or by an inactive person spend more than they earn.

Table 55 compares expenditure and income ratio and shows that at the national level:

- 47% of households reported a ratio between 0 and 0.75, meaning that income is higher than expenditure by at least 33% (income much higher than expenditure);
- 43% of households reported a ratio between 0.75 and 1.25, meaning expenditure and income are more or less 33% different (good balance between income and expenditure); and
- 10% of households reported a ratio higher than 1.25, meaning that expenditure is more than 33% higher than income.

Table 55: Ratio of total annual expenditure to total annual income.

Ratio of expenditure to income	Urban		Rural		National	
	#	%	#	%	#	%
0-0.25	240	4.8%	20	1.5%	250	4.2%
0.26-0.50	740	14.9%	100	10.2%	840	14.1%
0.51-0.75	1,480	29.9%	220	22.6%	1,710	28.7%
0.76-1.00	990	19.9%	230	23.3%	1,220	20.5%
1.01-1.25	660	13.3%	180	18.2%	840	14.1%
1.26-1.50	420	8.4%	70	7.2%	490	8.2%
1.51-1.75	170	3.5%	80	8.2%	250	4.2%
1.76-2.00	40	0.9%	30	3.0%	70	1.2%
2.00 +	220	4.5%	60	5.9%	280	4.8%
Total	4,960	100.0%	990	100.0%	5,950	100.0%

The grey area of Table 55 shows a good balance between expenditure and income. In urban areas, 41% of households belong to this group (i.e. the ratio ranged between 0.75 and 1.25), and 49% in rural areas (more households in rural areas reported a good balance between expenditure and income). About 6% of households in rural areas show an expenditure level that is at least twice as high as their income.

Imputed rents

This section provides an analysis of reported imputed rents, which account for USD 21.3 million of the total household expenditure. The objective of this section is to assess the validity of the imputed rents reported in the 2014 HIES.

For this analysis, we distinguish between rural and urban areas, household and workers barracks, and the following tenure statuses:

1. Renting with landlord charges (market) – people paying rent to occupy the household;
2. Renting without landlord charges (imputed) – people occupying the house without any landlord charges; and
3. Owner occupiers (imputed) – owners occupying their own house, with or without a mortgage.

Actual rents are collected from households in category 1 (renting) and these are assumed to be representative of Palau's prevailing rental market. For categories 2 and 3, respondents are asked to estimate how much they would expect to pay in rent if, in fact, the dwelling was rented (these are imputed rents, occupier's estimate of the rental value of their dwelling).

Imputed rents estimates are collected to facilitate the computation of national accounts (e.g. household services contribution to gross domestic product); however, respondents may not be sufficiently informed about the housing rental market and a bias may, therefore, be introduced into the estimates.

Of the total housing rents (actual + imputed) expenditure of USD 23.9 million, imputed rents (i.e. those from categories 2 and 3) account for USD 21.3 million (89% of total housing rents). For this analysis, some households reported paying rent on behalf of another household, and this amounts to USD 0.22 million and has been removed from this analysis because it is not certain if this amount accounts for the entire rent or just a portion of the rent. Also, household characteristics (e.g. location, dwelling type), and who the beneficiary of in-kind rental payments is, is not known, which restricts this analysis. As such, the analysis below is based on a total rent of USD 23.68 million and an imputed rent of USD 22.35 million.

Reported rents

Tables 56, 57 and 58 show the total market (cash) and imputed rents declared in the 2014 HIES for the above three referred tenure categories (noting again that this omits rents paid for other households in-kind to facilitate analysis).

For barracks, it can be seen that the majority (97%) of households living in barracks reside in urban areas and, of these, the majority (77%) declare imputed rents. Table 58 shows that average declared imputed rents of USD 899 per annum are below the market rental average of USD 1,066 per annum (Fig. 38).

About 22% of households reside in rural areas and the remainder in urban areas. In rural areas, 98% of households declared imputed rents, while in urban areas, 81% of households declared imputed rents. In both urban and rural areas, average imputed rents are significantly (approximately double) higher than average market rents (Fig. 39). This is indicative that owner-occupied households may have over-estimated the rents that they would receive and that the imputed rents should be used with caution in the compilation of national accounts.

Table 56: Total annual rents (for primary home) by tenure category, rent type, area and dwelling category (amounts in USD '000).

Tenure category	Barracks					Household					Total				
	Rural		Urban		Total	Rural		Urban		Total	Rural		Urban		TOTAL
	Cash	Imputed rents	Cash	Imputed rents		Cash	Imputed rents	Cash	Imputed rents		Cash	Imputed rents	Cash	Imputed rents	
Owner occupied	-	-	-	-	-	-	4,023	-	15,503	19,526	-	4,023	-	15,503	19,526
Renting with landlord charges	29	-	341	-	370	43	-	1,910	-	1,953	73	-	2,251	-	2,323
Renting without any landlord charges	-	20	-	\$963	983	-	125	-	719	844	-	145	-	1,682	1,826
Total	29	20	341	\$963	1,353	43	4,148	1,910	16,222	22,323	73	4,168	2,251	17,185	23,676

Table 57: Total number of households (for primary home) by tenure category, rent type, area and dwelling category (number of households).

Tenure category	Barracks					Household					Total				
	Rural		Urban		Total	Rural		Urban		Total	Rural		Urban		TOTAL
	Cash	Imputed rents	Cash	Imputed rents		Cash	Imputed rents	Cash	Imputed rents		Cash	Imputed rents	Cash	Imputed rents	
Owner occupied	-	-	-	-	-	-	862	-	2,453	3,315	-	862	-	2,453	3,315
Renting with landlord charges	22	-	320	-	342	19	-	644	-	662	41	-	963	-	1,004
Renting without any landlord charges	-	26	-	1,071	1,097	-	55	-	245	300	-	81	-	1,317	1,398
Total	22	26	320	1,071	1,439	19	916	644	2,699	4,277	41	942	963	3,770	5,716

Table 58: Average annual rents (for primary home) by tenure category, rent type, area and dwelling category (amounts in USD).

Tenure category	Barracks					Household					Total				
	Rural		Urban		Total	Rural		Urban		Total	Rural		Urban		TOTAL
	Cash	Imputed rents	Cash	Imputed rents		Cash	Imputed rents	Cash	Imputed rents		Cash	Imputed rents	Cash	Imputed rents	
Owner occupied	-	-	-	-	-	-	4,669	-	6,319	5,890	-	4,669	-	6,319	5,890
Renting with landlord charges	1,325	-	1,066	-	1,083	2,339	-	2,967	-	2,949	1,789	-	2,336	-	2,314
Renting without any landlord charges	-	752	-	899	895	-	2,282	-	2,930	2,812	-	1,790	-	1,277	1,307
Total	1,325	752	1,066	899	940	2,339	4,526	2,967	6,011	5,219	1,789	4,422	2,336	4,558	4,142

Average rents

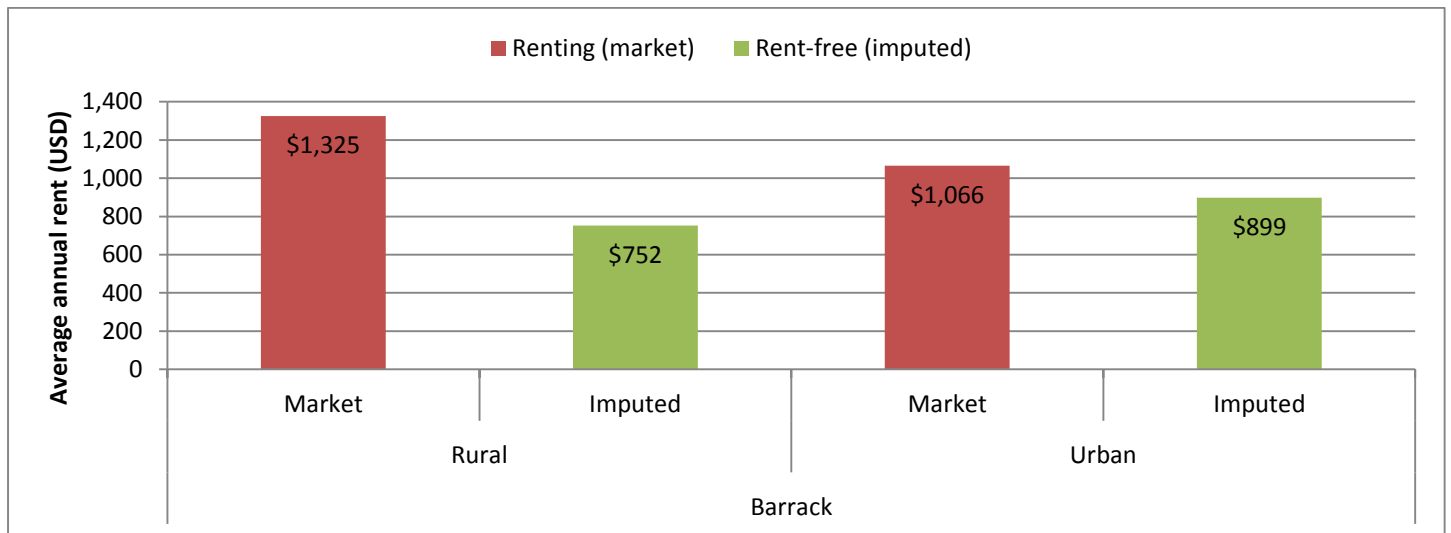


Figure 38: Average annual market (cash, in USD) and imputed rents for barracks by area.

Figure 39 shows that, in both rural and urban areas, imputed rents estimates are, on average, below the declared market average. This is an indication that people may be uninformed about prevailing rental prices when they estimate imputed rents. The total rents (actual + imputed) declared for barracks were USD 1.35 million; however, if average market prices per area were applied, total rents would increase to USD 1.56 million. If urban market prices are applied to all barracks — rural sample size is very small — then total rents would be USD 1.53 million.

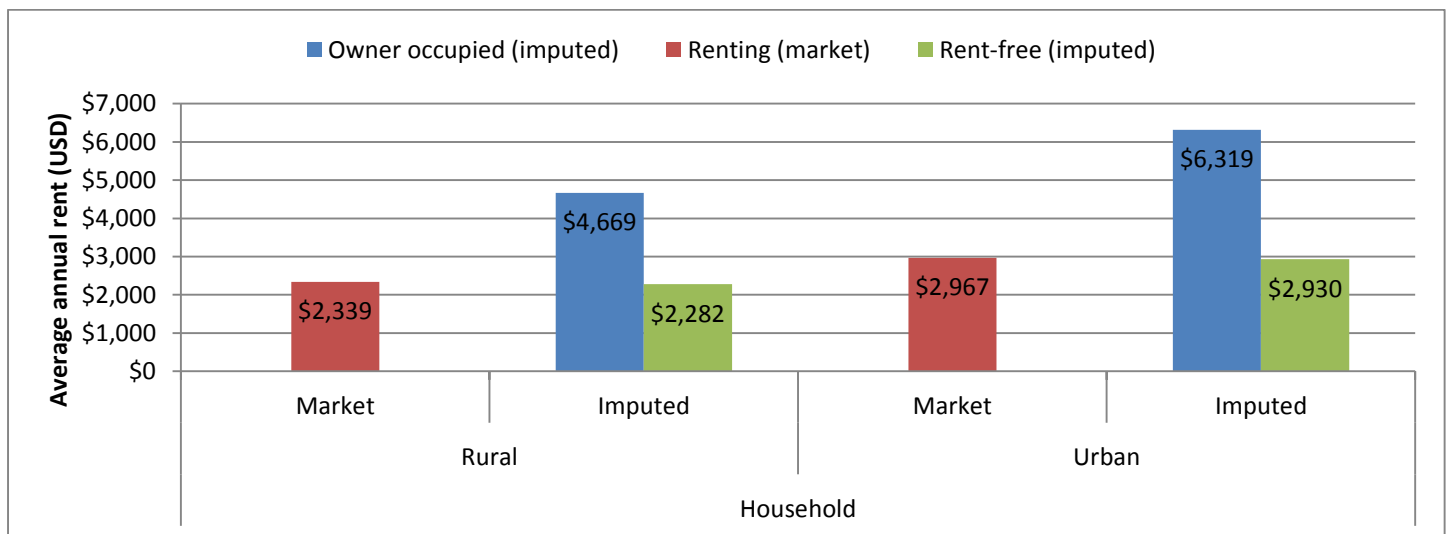


Figure 39: Average annual market (cash, in USD) and imputed rents (owner-occupied and rent free) for households by area.

Figure 39 shows that, in both rural and urban areas, imputed rents estimates by owner-occupied households are, on average, double those reported by rent-paying households. The imputed rents estimated by households that are not paying rent were, on average, in line with market prices.

The significant difference between owner-occupied imputed rents warrants further investigation as this amounts to USD 19.5 million, or 83% of the rents being analyzed in this section.

Normalizing¹⁶ these imputed rents by applying the average market price by area to households that impute rents would lead to a reduction of total rents from USD 4.15 million to USD 2.14 million in rural areas and from USD 16.22 million to USD 8.00 million in urban areas. In total, this would lead to a reduction of total household rents (applicable to this analysis) from USD 22.32 million to USD 12.10 million.

Normalizing barracks and household rents would lead to a total imputed rents reduction from USD 21.35 million to USD 11.16 million.

Given the magnitude of the aggregated difference between imputed and normalized imputed rents at the household level, the remainder of this analysis will focus on households (i.e. barracks are excluded from the remainder of this analysis).

Outliers

For both rural and urban households, there are a number of imputed rents outliers that contribute to the large discrepancy between average market and imputed rents. Although it is not known if these imputed rents outliers are accurate or not, for the sake of analysis, Table 59 shows the average and total household rents (actual and imputed) with all outliers (classified as those being above the most expensive reported market rent, that is, USD 12,000 per annum for urban and USD 6,000 per annum for rural), being removed.

Table 59: Total and average rents (in USD) with and without outliers by rent type and area.

	Rural households		Urban households		Total households		Total
	Cash	Imputed	Cash	Imputed	Cash	Imputed	
Average	2,399	4,526	2,967	6,011			
Total rents	43,407	4,148,216	1,910,014	16,221,799	1,953,421	20,370,015	22,323,436
Average (outliers removed)	2,399	2,765	2,967	4,967			
Total average rents	43,407	2,533,057	1,910,014	13,406,874	1,953,421	15,939,931	17,893,352
Difference	0	-1,615,159	0	-2,814,925	0	-4,430,083	-4,430,083

In total, it can be seen that when outliers are removed and the average imputed rents are applied across the total household population, total household imputed rents is reduced by USD 4.43 million.

¹⁶Normalizing refers to applying average market rents to all owner-occupied households.

Household characteristics

The distribution of household characteristics by rent range (imputed and actual) is presented in Appendix C. These characteristics can be used to facilitate hedonic regression analysis to gain an understanding of the variables that determine rental prices; preliminary analysis did not identify any significant independent variables.

Table 60 presents the most frequent characteristics of a rural and urban household in Palau. These are presented with the objective of facilitating alternative approaches, such as the cost approach, to validate imputed rents in the compilation of national accounts.

Table 60: The most frequent household characteristics by area.

Characteristic	Rural		Urban		Total	
	Most common	% of households	Most common	% of households	Most common	% of households
State	Peleliu	17.4%	Koror	81.4%	Koror	63.6%
Tenure	Owner occupied	98.0%	Owner occupied	80.7%	Owner occupied	84.5%
Type of house	Free standing	94.6%	Free standing	73.2%	Free standing	77.8%
Roof	Metal	92.9%	Metal	76.6%	Metal	80.2%
Walls	Concrete	39.1%	Concrete	51.1%	Concrete	48.5%
Floor	Concrete	63.7%	Concrete	71.3%	Concrete	69.6%
Number of rooms	4	29.5%	5	22.3%	5	23.0%
Decade built	1990s	26.7%	1990s	23.9%	1990s	24.5%
Kitchen	Inside and out	68.2%	Inside	64.6%	Inside	57.0%
Connected to public power	Yes	98.5%	Yes	100.0%	Yes	99.7%
Connected to public water	Yes	96.6%	Yes	99.3%	Yes	98.7%
Connected to public sewer	No	90.4%	Yes	66.8%	Yes	54.3%
Main sanitation	Septic tank	70.8%	Public sewer	65.5%	Public sewer	53.0%
Landline phone connection	Yes	88.7%	Yes	82.4%	Yes	83.8%

The above table shows that households in rural areas do not greatly differ from those in urban areas. From the household characteristics collected for the HIES, rural households typically: 1) have an indoor and outdoor kitchen; 2) have four rooms; and 3) are not connected to the public sewerage system (their main sanitation facility is a septic tank). Urban households typically: 1) have an indoor kitchen only; 2) have five rooms; and 3) are connected to the public sewerage system, so this is their main sanitation outlet. Aside from these characteristics, rural and urban households also have similar characteristics.

Household expenditure

In addition to understanding common household characteristics when estimating imputed rents, it is useful to understand household expenditures that are incurred by owner occupiers that would typically be incurred by a landlord. These may include maintenance, water rates and insurance.

In the case of Palau, owner-occupied households reported a total of household maintenance expenditure of USD 0.53 million, which amounts to an average of USD 158.47 per owner-occupied household per annum.

Other expenses¹⁷ that may be incurred by a landlord include: water rates (average USD 230.29 per owner-occupied household per annum) and home insurance (average USD 26.02 per owner-occupied household per annum).

¹⁷ Some statistical agencies include mortgage interest paid to derive net imputed rents. In the case of Palau, average owner-occupied interest paid on loans to purchase or improve a dwelling amounted to USD 356.15.

Validation of imputed rents reported in the 2014 HIES

Table 61 compares different data sources and methodologies used in the estimation of imputed rents. The objective of this is to validate the imputed rents reported during the 2014 HIES. Imputed rents reported from the 2006 HIES are compared with those reported in the 2014 HIES, the results of the outlier analysis and economic approaches including: normalization, the cost approach and comparison with imputed rents currently used in the compilation of national accounts.

Table 61: Comparison of 2014 imputed rents with previous household income and expenditure surveys, and other estimation methodologies (amounts in USD).

	2014 households # of households	2014 HIES households ¹⁸ USD	2014 HIES total ¹⁹ USD	2006 HIES (nominal) ²⁰ USD	2006 HIES (real) ²¹ USD	2014 HIES (outliers) ²² USD	2014 HIES (normalized) ²³ USD	Cost approach ²⁴ USD	2014 national accounts (CP) ²⁵ USD
Total imputed rents	3,615	20,370,015	21,352,757	17,051,000	26,692,291	17,893,352	11,163,100	8,218,100	11,277,000

The 2014 estimated imputed rents are higher than the previous HIES (nominal), but not higher than CPI adjusted (real) imputed rents from the 2006 HIES. Furthermore, it is not clear if the 2006 HIES included imputed rents estimates for barracks or just households, so any comparison of these figures should be treated with caution.

When comparing the 2014 HIES with the outlier, normalized and cost approaches, the 2014 results were higher and they are higher than those used in current national account compilation.

This report presents the results of the 2014 HIES and the aggregated imputed rents are, therefore, reported on face value; however, caution should be adhered to in the use of imputed rents in compiling national accounts, and consideration should be given to utilizing different approaches to validate the value of imputed rents.

¹⁸ Households only (excluding barracks).

¹⁹ Total imputed rents (including households, barracks and secondary households).

²⁰ Reported in the 2006 HIES report, but methodology and inclusions and/or exclusions are unclear.

²¹ Real imputed rents were adjusted using annual housing consumer price index group sourced from: <http://palaugov.org/wp-content/uploads/2015/05/Palau-CPI-Publication-Q1-2015.pdf>.

²² Outliers methodology outlined above. Includes households only.

²³ Normalized methodology outlined above. Includes barracks and households.

²⁴ The National Development Bank of Palau stated that the most commonly built household is a three-bedroom, two-bathroom household at a cost of USD 62,000. Using the cost approach, a life of 30 years was assumed and the house was depreciated using a straight line method. A 10% maintenance cost was assumed on the annual depreciated value. CA = cost of house / 30 years x 1.10 x number of households = USD 62,000 / 30 x 1.10 x 3,315 = USD 8.22 million.

²⁵ Owner-occupied value added reported in constant prices (CP) for compilation of 2014 national accounts.

Appendix A: Additional expenditure tables

Table A1: Total monthly household expenditure by expense category and type (amounts in USD '000)

Expenditure category	Beneficiary: own household		Beneficiary: another household (in-kind)		Total
	Cash	Home produced	Cash	Home produced	
Consumption expenditure					
01. Food and non-alcoholic beverages	1,293	157	36	57	1,543
02. Alcoholic beverages, tobacco, etc.	350	0	4	4	359
03. Clothing and footwear	280	-	3	-	283
04. Housing and utilities	950	-	20	-	970
05. Furnishings, equipment and maintenance	296	-	5	0	301
06. Health	114	-	2	-	116
07. Transportation	1,010	-	5	-	1,015
08. Communication	324	-	2	-	326
09. Recreation and culture	193	-	3	0	196
10. Education	112	-	5	-	118
11. Restaurants and hotels	169	-	13	-	182
12. Miscellaneous goods and services	551	-	62	-	612
Total consumption expenditure	5,642	157	161	62	6,021
Non-consumption expenditure	-	-	-	-	-
Ceremonies	788	-	-	-	788
Cash donations to households	230	-	-	-	230
Cash donations to church	66	-	-	-	66
Taxes and fines	6	-	-	-	6
Cash donations to associations	18	-	-	-	18
Other charitable	1	-	-	-	1
Total non-consumption expenditure	1,108	-	-	-	1,108
Investment expenditure	-	-	-	-	-
Purchase of land or house	21	-	-	-	21
House construction	72	-	-	-	72
Plant or equipment	55	-	-	-	55
Mortgage payment	55	-	-	-	55
Total investment expenditure	203	-	-	-	203
Total household expenditure	6,953	157	161	62	7,332

Table A2: Average monthly household expenditure by expense category and type (amounts in USD).

Expenditure category	Beneficiary: own household		Beneficiary: another household (in-kind)		Total
	Cash	Home produced	Cash	Home produced	
Consumption expenditure					
01. Food and non-alcoholic beverages	217	26	6	10	260
02. Alcoholic beverages, tobacco, etc.	59	0	1	1	60
03. Clothing and footwear	47	-	1	-	48
04. Housing and utilities	160	-	3	-	163
05. Furnishings, equipment and maintenance	50	-	1	0	51
06. Health	19	-	0	-	20
07. Transportation	170	-	1	-	171
08. Communication	55	-	0	-	55
09. Recreation and culture	32	-	0	0	33
10. Education	19	-	1	-	20
11. Restaurants and hotels	28	-	2	-	31
12. Miscellaneous goods and services	93	-	10	-	103
Total consumption expenditure	949	26	27	10	1,012
Non-consumption expenditure					
Ceremonies	132	-	-	-	132
Cash donations to households	39	-	-	-	39
Cash donations to church	11	-	-	-	11
Taxes and fines	1	-	-	-	1
Cash donations to associations	3	-	-	-	3
Other charitable	0	-	-	-	0
Total non-consumption expenditure	186	-	-	-	186
Investment expenditure					
Purchase of land or house	4	-	-	-	4
House construction	12	-	-	-	12
Plant or equipment	9	-	-	-	9
Mortgage payment	9	-	-	-	\$9
Total investment expenditure	34	-	-	-	34
Total household expenditure	1,169	26	27	10	1,232

Table A3: Average monthly per capita expenditure by expense category and type (amounts in USD).

Expenditure category	Beneficiary: own household		Beneficiary: another household (in-kind)		Total
	Cash	Home produced	Cash	Home produced	
Consumption expenditure					
01. Food and non-alcoholic beverages	74	9	2	3	88
02. Alcoholic beverages, tobacco, etc.	20	0	0	0	20
03. Clothing and footwear	16	-	0	-	16
04. Housing and utilities	54	-	1	-	55
05. Furnishings, equipment and maintenance	17	-	0	0	17
06. Health	7	-	0	-	7
07. Transportation	57	-	0	-	58
08. Communication	18	-	0	-	19
09. Recreation and culture	11	-	0	0	11
10. Education	6	-	0	-	7
11. Restaurants and hotels	10	-	1	-	10
12. Miscellaneous goods and services	31	-	3	-	35
Total consumption expenditure	321	9	9	4	343
Non-consumption expenditure					
Ceremonies	45	-	-	-	\$45
Cash donations to households	13	-	-	-	\$13
Cash donations to church	4	-	-	-	\$4
Taxes and fines	0	-	-	-	\$0
Cash donations to associations	1	-	-	-	\$1
Other charitable	0	-	-	-	\$0
Total non-consumption expenditure	63	-	-	-	\$63
Investment expenditure					
Purchase of land or house	1	-	-	-	\$1
House construction	4	-	-	-	\$4
Plant or equipment	3	-	-	-	\$3
Mortgage payment	3	-	-	-	\$3
Total investment expenditure	12	-	-	-	\$12
Total household expenditure	396	9	9	4	418

Table A4: Total urban annual household expenditure by expense category and type (amounts in USD '000).

Expenditure category	Beneficiary: own household		Beneficiary: another household (in-kind)		Total
	Cash	Home produced	Cash	Home produced	
Consumption expenditure					
01. Food and non-alcoholic beverages	12,985	1,250	295	517	15,047
02. Alcoholic beverages, tobacco, etc.	3,446	2	51	21	3,519
03. Clothing and footwear	2,982	-	38	-	3,021
04. Housing and utilities	9,867	-	201	-	10,068
05. Furnishings, equipment and maintenance	3,124	-	62	-	3,186
06. Health	1,252	-	20	-	1,272
07. Transportation	10,030	-	46	-	10,076
08. Communication	3,389	-	17	-	3,406
09. Recreation and culture	1,976	-	27	1	2,005
10. Education	1,177	-	56	-	1,233
11. Restaurants and hotels	1,835	-	136	-	1,971
12. Miscellaneous goods and services	5,894	-	703	-	6,597
Total consumption expenditure	57,956	1,252	1,652	539	61,401
Non-consumption expenditure					
Ceremonies	7,521	-	-	-	7,521
Cash donations to households	2,605	-	-	-	2,605
Cash donations to church	673	-	-	-	673
Taxes and fines	70	-	-	-	70
Cash donations to associations	198	-	-	-	198
Other charitable	13	-	-	-	13
Total non-consumption expenditure	11,080	-	-	-	11,080
Investment expenditure					
Purchase of land or house	248	-	-	-	248
House construction	638	-	-	-	638
Plant or equipment	645	-	-	-	645
Mortgage payment	586	-	-	-	586
Total investment expenditure	2,116	-	-	-	2,116
Total household expenditure	71,152	1,252	1,652	539	74,595

Table A5: Total rural annual household expenditure by expense category and type (amounts in USD '000).

Expenditure category	Beneficiary: own household		Beneficiary: another household (in-kind)		Total
	Cash	Home produced	Cash	Home produced	
Consumption expenditure					
01. Food and non-alcoholic beverages	2,532	631	140	166	3,471
02. Alcoholic beverages, tobacco, etc.	751	3	1	28	783
03. Clothing and footwear	375	-	2	-	377
04. Housing and utilities	1,535	-	33	-	1,568
05. Furnishings, equipment and maintenance	424	-	4	4	431
06. Health	120	-	-	-	120
07. Transportation	2,092	-	17	-	2,110
08. Communication	500	-	1	-	501
09. Recreation and culture	340	-	7	0	348
10. Education	172	-	10	-	182
11. Restaurants and hotels	193	-	23	-	217
12. Miscellaneous goods and services	712	-	35	-	748
Total consumption expenditure	9,746	634	275	199	10,854
Non-consumption expenditure					
Ceremonies	1,933	-	-	-	1,933
Cash donations to households	151	-	-	-	151
Cash donations to church	118	-	-	-	118
Taxes and fines	1	-	-	-	1
Cash donations to associations	18	-	-	-	18
Total non-consumption expenditure	2,220	-	-	-	2,220
Investment expenditure					
Purchase of land or house	10	-	-	-	10
House construction	224	-	-	-	224
Plant or equipment	10	-	-	-	10
Mortgage payment	74	-	-	-	74
Total investment expenditure	318	-	-	-	318
Total household expenditure	12,284	634	275	199	13,392

Table A6: Total annual household expenditure (in USD '000) and households reporting expenditure (%) by type and COICOP subclass.

	Total household expenditure (USD '000)					Percentage of households with expenditure (%)				
	Beneficiary: own household		Beneficiary: another household (in-kind)		Total	Beneficiary: own household		Beneficiary: another household (in-kind)		Total
	Cash	Home produced	Cash	Home produced		Cash	Home produced	Cash	Home produced	
Total expenditure	83,436	1,886	1,927	738	87,989	99.6%	36.4%	37.2%	15.7%	99.7%
Total consumption expenditure	67,702	1,886	1,927	738	72,255	99.6%	36.4%	37.2%	15.7%	99.7%
101. Food & non-alcoholic beverages	15,517	1,881	435	684	18,517	96.3%	36.3%	13.4%	15.0%	96.8%
111.Bread and cereals	4,015	4	105	0	4,125	92.1%	0.1%	5.7%	0.1%	92.1%
112.Meat	3,542	29	58	36	3,665	82.9%	1.5%	1.6%	0.3%	83.2%
113.Fish and seafood	1,244	968	39	284	2,535	68.9%	23.8%	1.8%	5.5%	75.7%
114.Milk, cheese and eggs	1,140	2	31	-	1,173	71.6%	0.5%	2.3%	-	71.9%
115.Oils and fats	441	1	3	1	446	47.8%	0.1%	0.4%	0.1%	47.9%
116.Fruits	440	127	10	74	652	33.7%	12.1%	1.2%	5.7%	42.6%
117.Vegetables	1,200	723	26	275	2,224	78.1%	27.6%	2.4%	9.1%	83.0%
118.Sugar, jam, honey, chocolate and confectionery	687	-	29	-	717	57.2%	-	2.8%	-	57.8%
119. Food products nec.	849	22	18	12	902	71.6%	1.6%	1.9%	0.3%	72.4%
121.Coffee, tea and cocoa	633	-	15	-	647	57.1%	-	1.8%	-	57.5%
122.Mineral water, soft drinks and juices	1,325	6	100	1	1,432	77.5%	0.6%	4.8%	0.1%	78.2%
102. Alcoholic beverages, tobacco and illicit substances	4,196	5	52	49	4,302	59.4%	0.6%	2.8%	2.8%	60.3%
211.Spirits	139	-	-	-	139	2.9%	-	-	-	2.9%
212.Wine	60	-	5	-	65	1.9%	-	0.1%	-	2.0%
213.Beer	603	-	17	-	620	17.7%	-	0.6%	-	17.9%
221.Tobacco	2,570	-	25	-	2,595	51.9%	-	1.9%	-	52.2%
231.Narcotics	824	5	5	49	883	34.6%	0.6%	0.7%	2.8%	36.8%
103. Clothing and footwear	3,357	-	41	-	3,398	77.6%	-	1.3%	-	77.9%
311.Clothing materials	65	-	-	-	65	0.4%	-	-	-	0.4%
312.Garments	2,017	-	30	-	2,047	56.2%	-	0.9%	-	56.5%
313.Other articles of clothing and accessories	22	-	1	-	23	3.4%	-	0.2%	-	3.5%
314.Cleaning, repair and hire of clothing	864	-	1	-	865	41.0%	-	0.1%	-	41.0%
321.Shoes and other footwear	389	-	10	-	399	29.5%	-	0.7%	-	30.1%

Table A6 continued

	Total household expenditure (USD '000)					Percentage of households with expenditure (%)				
	Beneficiary: own household		Beneficiary: another household (in-kind)		Total	Beneficiary: own household		Beneficiary: another household (in-kind)		Total
	Cash	Home produced	Cash	Home produced		Cash	Home produced	Cash	Home produced	
104. Housing and utilities	11,401	-	234	-	11,636	93.2%	-	2.0%	-	98.3%
411.Actual rentals paid by tenants	2,323	-	-	-	2,323	21.3%	-	-	-	21.3%
412.Other actual rentals	-	-	220	-	220	-	-	1.5%	-	1.5%
431.Materials for maintenance/repair of dwelling	537	-	-	-	537	13.4%	-	-	-	13.4%
432.Services for maintenance/repair of dwelling	82	-	-	-	82	2.5%	-	-	-	2.5%
441.Water supply	944	-	1	-	945	71.2%	-	0.1%	-	71.3%
442.Refuse collection	39	-	-	-	39	2.7%	-	-	-	2.7%
443.Sewage collection	7	-	-	-	7	1.3%	-	-	-	1.3%
444. Other services relating to the dwelling nec.	86	-	-	-	86	4.1%	-	-	-	4.1%
451.Electricity	5,537	-	8	-	5,545	81.8%	-	0.1%	-	81.8%
452.Gas	1,331	-	3	-	1,334	80.8%	-	0.2%	-	81.0%
453.Liquid fuels	382	-	2	-	383	15.1%	-	0.1%	-	15.2%
454.Solid fuels	107	-	-	-	107	9.8%	-	-	-	9.8%
455.Heat energy	26	-	1	-	27	6.2%	-	0.2%	-	6.2%
105. Furnishings, equipment and maintenance	3,547	-	66	4	3,617	80.9%	-	1.7%	0.2%	81.0%
511.Furniture and furnishings,	272	-	33	-	304	9.7%	-	0.1%	-	9.9%
512.Carpets and other floor coverings	4	-	-	-	4	2.4%	-	-	-	2.4%
513.Repair of furniture and floor coverings	1	-	-	-	1	0.2%	-	-	-	0.2%
521.Household textiles	86	-	3	-	89	6.1%	-	0.4%	-	6.5%
531.Major household appliances	316	-	13	-	329	10.8%	-	0.1%	-	10.8%
532.Small electric household appliance	100	-	0	-	100	6.8%	-	0.1%	-	6.8%
540.Glassware, tableware and household utensils	317	-	5	4	326	11.5%	-	0.2%	0.2%	11.6%
551.Major tools and equipment	174	-	-	-	174	10.5%	-	-	-	10.5%
552.Small tools and miscellaneous accessories	167	-	-	-	167	10.1%	-	-	-	10.1%
561.Non-durable household goods	1,155	-	9	-	1,164	71.7%	-	0.7%	-	71.7%
562.Domestic services and household services	957	-	3	-	960	11.8%	-	0.1%	-	11.9%

Table A6 continued

	Total household expenditure (USD '000)					Percentage of households with expenditure (%)				
	Beneficiary: own household		Beneficiary: another household (in-kind)		Total	Beneficiary: own household		Beneficiary: another household (in-kind)		Total
	Cash	Home produced	Cash	Home produced		Cash	Home produced	Cash	Home produced	
106. Health	1,372	-	20	-	1,392	44.4%	-	0.2%	-	44.4%
611.Pharmaceutical products	335	-	-	-	335	31.8%	-	-	-	31.8%
612.Other medical products	5	-	-	-	5	1.1%	-	-	-	1.1%
613.Therapeutic appliances and equipment	0	-	12	-	13	0.3%	-	0.1%	-	0.4%
621.Medical services	278	-	-	-	278	10.8%	-	-	-	10.8%
622.Dental services	59	-	-	-	59	6.6%	-	-	-	6.6%
623.Paramedical services	146	-	8	-	154	6.1%	-	0.1%	-	6.1%
630.Hospital services	548	-	-	-	548	11.8%	-	-	-	11.8%
107. Transportation	12,122	-	64	-	12,186	75.9%	-	1.4%	-	76.0%
711.Motor cars	2,397	-	-	-	2,397	9.9%	-	-	-	9.9%
713.Bicycles	9	-	-	-	9	0.9%	-	-	-	0.9%
721.Parts and accessories for personal transport	388	-	-	-	388	20.7%	-	-	-	20.7%
721.Parts and accessories for personal transport	36	-	-	-	36	20.7%	-	-	-	20.7%
722.Fuels and lubricants for personal transport	6,701	-	18	-	6,718	67.1%	-	0.3%	-	67.2%
723.Maintenance and repair of personal transport	761	-	-	-	761	50.2%	-	-	-	50.2%
724.Other w.r.t. personal transport equipment	507	-	-	-	507	55.7%	-	-	-	55.7%
732.Passenger transport by road	160	-	2	-	162	8.8%	-	0.3%	-	9.1%
733.Passenger transport by air	1,106	-	42	-	1,149	12.0%	-	0.6%	-	12.5%
734.Passenger transport by water	71	-	0	-	71	3.7%	-	0.1%	-	3.7%
736.Other purchased transport services	23	-	2	-	25	2.6%	-	0.1%	-	2.8%
108. Communication	3,889	-	19	-	3,907	94.1%	-	1.1%	-	94.1%
811.Postal services	82	-	6	-	89	40.1%	-	0.1%	-	40.1%
820.Telephone and telefax equipment	163	-	-	-	163	10.2%	-	-	-	10.2%
830.Telephone and telefax services	3,644	-	12	-	3,656	93.3%	-	1.0%	-	93.3%

Table A6 continued

	Total household expenditure (USD '000)					Percentage of households with expenditure (%)				
	Beneficiary: own household		Beneficiary: another household (in-kind)		Total	Beneficiary: own household		Beneficiary: another household (in-kind)		Total
	Cash	Home produced	Cash	Home produced		Cash	Home produced	Cash	Home produced	
109. Recreation and culture	2,316	-	35	2	2,352	67.8%	-	2.0%	0.1%	68.3%
911.IT equipment	141	-	-	-	141	9.8%	-	-	-	9.8%
912.Photo and cinema equipment	17	-	-	-	17	1.4%	-	-	-	1.4%
913.Information processing equipment	220	-	-	-	220	8.3%	-	-	-	8.3%
914.Recording media	0	-	-	-	0	0.2%	-	-	-	0.2%
915.Repair of AV, photo and IT equipment	0	-	-	-	0	0.1%	-	-	-	0.1%
921.Major durables for outdoor recreation	5	-	-	-	5	0.1%	-	-	-	0.1%
931.Games, toys and hobbies	168	-	4	-	172	4.4%	-	0.3%	-	4.6%
932.Equipment for sport, camping, etc.	20	-	-	-	20	1.3%	-	-	-	1.3%
933.Gardens, plants and flowers	42	-	8	2	51	1.2%	-	0.1%	0.1%	1.4%
934.Pets & related products	134	-	-	-	134	5.1%	-	-	-	5.1%
941.Recreational and sporting services	55	-	-	-	55	0.9%	-	-	-	0.9%
942.Cultural services	1,056	-	12	-	1,067	51.4%	-	0.7%	-	52.1%
951.Books	273	-	3	-	276	11.6%	-	0.3%	-	11.9%
952.Newspapers and periodicals	28	-	-	-	28	6.7%	-	-	-	6.7%
953.Miscellaneous printed matter	37	-	2	-	38	1.1%	-	0.1%	-	1.2%
954.Stationery and drawing materials	119	-	7	-	126	12.9%	-	0.7%	-	13.4%
110. Education	1,349	-	65	-	1,414	16.2%	-	0.7%	-	16.9%
1010.Pre-primary and primary education	296	-	2	-	299	8.4%	-	0.4%	-	8.7%
1020.Secondary education	284	-	61	-	344	5.8%	-	0.3%	-	6.0%
1040.Tertiary education	769	-	2	-	772	5.5%	-	0.1%	-	5.5%
111. Restaurants and hotels	2,029	-	159	-	2,188	59.1%	-	3.4%	-	59.4%
1111.Restaurants, cafes and the like	1,898	-	117	-	2,014	58.1%	-	3.2%	-	58.4%
1112.Canteens	3	-	31	-	34	0.1%	-	0.2%	-	0.2%
1120.Accommodation services	128	-	12	-	139	2.9%	-	0.2%	-	3.0%

Table A6 continued

	Total household expenditure (USD '000)					Percentage of households with expenditure (%)				
	Beneficiary: own household		Beneficiary: another household (in-kind)		Total	Beneficiary: own household		Beneficiary: another household (in-kind)		Total
	Cash	Home produced	Cash	Home produced		Cash	Home produced	Cash	Home produced	
112. Miscellaneous goods and services	6,606	-	738	-	7,344	92.6%	-	20.8%	-	93.4%
1211.Hairdressing salons and personal grooming	440	-	-	-	440	52.0%	-	-	-	52.0%
1212.Electric appliances for personal care	2	-	-	-	2	0.2%	-	-	-	0.2%
1213.Other appliances/products for personal care	1,822	-	39	-	1,860	77.1%	-	2.5%	-	77.5%
1231.Jewellery, clocks and watches	139	-	0	-	139	3.8%	-	0.0%	-	3.8%
1232.Other personal effects	72	-	21	-	93	4.2%	-	0.3%	-	4.3%
1240.Social protection	114	-	27	-	142	0.8%	-	0.4%	-	1.1%
1251.Life Insurance	62	-	55	-	117	1.5%	-	1.5%	-	1.4%
1252.Insurance connected with the dwelling	86	-	-	-	86	4.8%	-	-	-	4.8%
1253.Insurance connected with health	280	-	184	-	463	4.8%	-	5.0%	-	5.0%
1254. Insurance connected with transport	85	-	-	-	85	1.7%	-	-	-	1.7%
1255.Other Insurance	2	-	-	-	2	0.5%	-	-	-	0.5%
1261.FISIM	3,073	-	-	-	3,073	37.4%	-	-	-	37.4%
1262. Other financial services nec.	338	-	316	-	653	17.4%	-	12.3%	-	29.5%
1270. Other services nec.	91	-	97	-	188	11.8%	-	0.4%	-	35.8%
Total non-consumption expenditure	13,300	-	-	-	13,300	92.3%	-	-	-	92.3%
201. Ceremonies	9,453	-	-	-	9,453	78.3%	-	-	-	78.3%
202. Cash donations to households	2,756	-	-	-	2,756	35.7%	-	-	-	35.7%
203. Cash donations to church	791	-	-	-	791	53.0%	-	-	-	53.0%
205. Taxes and fines	70	-	-	-	70	21.2%	-	-	-	21.2%
206. Cash donations to associations	216	-	-	-	216	20.1%	-	-	-	20.1%
207. Other charitable	13	-	-	-	13	2.3%	-	-	-	2.3%
TOTAL INVESTMENT EXPENDITURE	2,434	-	-	-	2,434	12.5%	-	-	-	12.5%
301. Purchase of land or house	258	-	-	-	258	4.6%	-	-	-	4.6%
302. House construction	862	-	-	-	862	2.4%	-	-	-	2.4%
304. Plant or equipment	654	-	-	-	654	1.1%	-	-	-	1.1%
305. Mortgage payment	660	-	-	-	660	5.2%	-	-	-	5.2%

Appendix B: Additional income tables

Table B1: Total monthly household income by income category and type (amounts in USD).

Income category	Cash	Home produced	In-kind (gifts)		In-kind	Total
			Purchased	Home produced		
Wages and salaries	7,049,170	-	-	-	363,910	7,413,080
Income from business activities	661,620	-	-	-	-	661,620
Subsistence - agriculture	58,760	-	-	-	-	58,760
Subsistence - fishing	19,480	-	-	-	-	19,480
Subsistence - livestock	9,280	-	-	-	-	9,280
Subsistence handicrafts	12,350	-	-	-	-	12,350
Home production	-	108,320	-	-	-	108,320
Income from employment	7,810,650	108,320	-	-	363,910	8,282,880
Income from capital	185,600	-	-	-	-	185,600
Cash remittances in country	12,710	-	-	-	-	12,710
Cash remittances overseas	70,720	-	-	-	-	70,720
Other transfer income	2,121,980	-	-	-	-	2,121,980
Income from transfers	2,205,400	-	-	-	-	2,205,400
Casual receipts	9,760	-	-	-	-	9,760
In-kind gifts (bought)	-	-	160,600	-	-	160,600
In-kind gifts (home produced)	-	-	-	61,540	-	61,540
Casual income	9,760	-	160,600	61,540	-	231,900
Total	10,211,410	108,320	160,600	61,540	363,910	10,905,780

Table B2: Average monthly household income by income category and type (amounts in USD).

Income category	Cash	Home produced	In-kind (gifts)		In-kind	Total
			Purchased	Home produced		
Wages and salaries	1,186	-	-	-	61	1,247
Income from business activities	111	-	-	-	-	111
Subsistence - agriculture	10	-	-	-	-	10
Subsistence - fishing	3	-	-	-	-	3
Subsistence - livestock	2	-	-	-	-	2
Subsistence handicrafts	2	-	-	-	-	2
Home production	-	18	-	-	-	18
Income from employment	1,314	18	-	-	61	1,393
Income from capital	31	-	-	-	-	31
Cash remittances in country	2	-	-	-	-	2
Cash remittances overseas	12	-	-	-	-	12
Other transfer income	357	-	-	-	-	357
Income from transfers	371	-	-	-	-	371
Casual receipts	2	-	-	-	-	2
In-kind gifts (bought)	-	-	27	-	-	27
In-kind gifts (home produced)	-	-	-	10	-	10
Casual income	2	-	27	10	-	39
Total	1,717	18	27	10	61	1,833

Table B3: Average monthly per capita income by income category and type (amounts in USD).

Income category	Cash	Home produced	In-kind (gifts)		In-kind	Total
			Purchased	Home produced		
Wages and salaries	401	-	-	-	21	422
Income from business activities	38	-	-	-	-	38
Subsistence - agriculture	3	-	-	-	-	3
Subsistence - fishing	1	-	-	-	-	1
Subsistence - livestock	1	-	-	-	-	1
Subsistence handicrafts	1	-	-	-	-	1
Home production	-	6	-	-	-	6
Income from employment	444	6	-	-	21	471
Income from capital	11	-	-	-	-	11
Cash remittances in country	1	-	-	-	-	1
Cash remittances overseas	4	-	-	-	-	4
Other transfer income	121	-	-	-	-	121
Income from transfers	125	-	-	-	-	125
Casual receipts	1	-	-	-	-	1
In-kind gifts (bought)	-	-	9	-	-	9
In-kind gifts (home produced)	-	-	-	4	-	4
Casual income	1	-	9	4	-	13
Total	581	6	9	4	21	621

Table B4: Total annual household income in rural areas by income category and type (amounts in USD).

Income category	Cash	Home produced	In-kind (gifts)		In-kind	Total
			Purchased	Home produced		
Wages and salaries	9,688,690	-	-	-	127,330	9,816,020
Income from business activities	1,338,520	-	-	-	-	1,338,520
Subsistence - agriculture	483,920	-	-	-	-	483,920
Subsistence - fishing	49,230	-	-	-	-	49,230
Subsistence - livestock	76,750	-	-	-	-	76,750
Subsistence handicrafts	66,240	-	-	-	-	66,240
Home production	-	463,920	-	-	-	463,920
Income from employment	11,703,350	463,920	-	-	127,330	12,294,600
Income from capital	142,240	-	-	-	-	142,240
Cash remittances in country	-	-	-	-	-	12,710
Cash remittances overseas	350,580	-	-	-	-	350,580
Other transfer income	4,345,280	-	-	-	-	4,345,280
Income from transfers	4,695,860	-	-	-	-	4,708,570
Casual receipts	-	-	-	-	-	9,760
In-kind gifts (bought)	-	-	274,850	0	-	274,850
In-kind gifts (home produced)	-	-	0	199,000	-	199,000
Casual income	-	-	274,850	199,000	-	483,610
Total	16,541,450	463,920	274,850	199,000	127,330	17,606,550

Table B5: Total annual household income in urban areas by income category and type (amounts in USD).

Income category	Cash	Home produced	In-kind (gifts)		In-kind	Total
			Purchased	Home produced		
Wages and salaries	74,901,350	-	-	-	4,239,610	79,140,960
Income from business activities	6,600,870	-	-	-	-	6,600,870
Subsistence - agriculture	221,240	-	-	-	-	221,240
Subsistence - fishing	184,480	-	-	-	-	184,480
Subsistence - livestock	34,620	-	-	-	-	34,620
Subsistence handicraft	81,910	-	-	-	-	81,910
Home production	-	835,880	-	-	-	835,880
Income from employment	82,024,460	835,880	-	-	4,239,610	87,099,950
Income from capital	2,084,940	-	-	-	-	2,084,940
Cash remittances in country	152,480	-	-	-	-	152,480
Cash remittances overseas	498,000	-	-	-	-	498,000
Other transfer income	21,118,500	-	-	-	-	21,118,500
Income from transfers	21,768,970	-	-	-	-	21,768,970
Casual receipts	117,090	-	-	-	-	117,090
In-kind gifts (bought)	-	-	1,652,390	-	-	1,652,390
In-kind gifts (home produced)	-	-	-	539,460	-	539,460
Casual income	117,090	-	1,652,390	539,460	-	2,308,940
Total	105,995,470	835,880	1,652,390	539,460	4,239,610	113,262,810

Table B6: Total number of reporting households nationally by income category and type (amounts in USD).

Income category	Cash	Home produced	In-kind (gifts)		In-kind	Total
			Purchased	Home produced		
Wages and salaries	5,221	-	-	-	2,302	5,221
Income from business activities	216	-	-	-	-	216
Subsistence - agriculture	231	-	-	-	-	231
Subsistence - fishing	249	-	-	-	-	249
Subsistence - livestock	127	-	-	-	-	127
Subsistence handicrafts	93	-	-	-	-	93
Home production	-	2,277	-	-	-	2,277
Income from employment	5,413	2,277	-	-	2,302	5,643
Income from capital	235	-	-	-	-	235
Cash remittances in country	144	-	-	-	-	144
Cash remittances overseas	333	-	-	-	-	333
Other transfer income	1,985	-	-	-	-	1,985
Income from transfers	2,211	-	-	-	-	2,211
Casual receipts	61	-	-	-	-	61
In-kind gifts (bought)	-	-	2,210	-	-	2,210
In-kind gifts (home produced)	-	-	-	935	-	935
Casual income	61	-	2,210	935	-	2,776
Total	5,873	2,277	2,210	935	2,302	5,936

Table B7: Total number of reporting rural households by income category and type (amounts in USD).

Income category	Cash	Home produced	In-kind (gifts)		In-kind	Total
			Purchased	Home produced		
Wages and salaries	726	-	-	-	75	726
Income from business activities	63	-	-	-	-	63
Subsistence - agriculture	111	-	-	-	-	111
Subsistence - fishing	81	-	-	-	-	81
Subsistence - livestock	79	-	-	-	-	79
Subsistence handicrafts	35	-	-	-	-	35
Home production	-	561	-	-	-	561
Income from employment	766	548	-	-	39	861
Income from capital	16	-	-	-	-	16
Cash remittances in country	-	-	-	-	-	-
Cash remittances overseas	36	-	-	-	-	36
Other transfer income	365	-	-	-	-	365
Income from transfers	379	-	-	-	-	379
Casual receipts	-	-	-	-	-	-
In-kind gifts (bought)	-	-	222	-	-	222
In-kind gifts (home produced)	-	-	-	253	-	253
Casual income	-	-	222	253	-	394
Imputed rents	-	-	-	-	-	873
Income from imputed rents	-	-	-	-	-	873
Total	848	521	174	245	35	870

Table B8: Total number of reporting urban households by income category and type (amounts in USD).

Income category	Cash	In-kind (gifts)			In-kind	Total
		Home produced	Purchased	Home produced		
Wages and salaries	4,494	-	-	-	2,228	4,494
Income from business activities	152	-	-	-	-	152
Subsistence - agriculture	120	-	-	-	-	120
Subsistence - fishing	168	-	-	-	-	168
Subsistence - livestock	48	-	-	-	-	48
Subsistence handicrafts	59	-	-	-	-	59
Home production	-	1,716	-	-	-	1,716
Income from employment	4,590	1,716	-	-	2,228	4,726
Income from capital	219	-	-	-	-	219
Cash remittances in country	144	-	-	-	-	144
Cash remittances overseas	297	-	-	-	-	297
Other transfer income	1,620	-	-	-	-	1,620
Income from transfers	1,831	-	-	-	-	1,831
Casual receipts	61	-	-	-	-	61
In-kind gifts (bought)	-	-	1,988	-	-	1,988
In-kind gifts (home produced)	-	-	-	682	-	682
Casual income	61	-	1,988	682	-	2,382
Imputed rents	-	-	-	-	-	3,810
Income from imputed rents	-	-	-	-	-	3,810
Total	4,918	1,716	1,988	682	2,228	4,956

Appendix C: Additional household tenure and characteristics tables

Table C1: Distribution of rural household characteristics by tenure type and rental price range (amounts in USD).

	Rental range (USD per annum)														Total
	0–2,000		2,000–4,000		4,000–6,000		6,000–8,000		8,000–10,000		10,000–\$12,000		> 12,000		
	Imputed	Market	Imputed	Market	Imputed	Market	Imputed	Market	Imputed	Market	Imputed	Market	Imputed	Market	
Number of households by rental range	251	11	298	5	130	0	102	3	52	0	73	0	10	0	935
	Rental range (USD per annum)														Total
	0–2,000		2,000–4,000		4,000–6,000		6,000–8,000		8,000–10,000		10,000–12,000		> 12,000		
	Imputed	Market	Imputed	Market	Imputed	Market	Imputed	Market	Imputed	Market	Imputed	Market	Imputed	Market	
Dwelling type															
Building attached to a business / other non-resident building	1.1%	-	1.1%	-	-	-	-	-	-	-	-	-	-	-	0.6%
Building with 2 or more apartments	1.4%	28.6%	-	-	-	-	-	-	-	-	-	-	30.5%	-	1.0%
Building with 2 or more household sharing a kitchen toilet	1.3%	-	-	-	-	-	-	-	-	-	-	-	-	-	0.3%
One family detached from any other house	91.8%	71.4%	97.9%	100.0%	90.4%	-	100.0%	100.0%	100.0%	-	100.0%	-	24.6%	-	94.6%
One family house attached to own or more houses	4.5%	-	1.0%	-	9.6%	-	-	-	-	-	-	-	44.9%	-	3.4%
Roof type															
Concrete	3.1%	28.6%	4.0%	-	-	-	4.6%	-	5.4%	-	29.3%	-	75.4%	-	6.3%
Metal	95.9%	71.4%	96.0%	-	100.0%	-	95.4%	100.0%	94.6%	-	70.7%	-	24.6%	-	92.9%
Wood	1.1%	-	-	100.0%	-	-	-	-	-	-	-	-	-	-	0.8%
Walls type															
Concrete	10.3%	28.6%	27.8%	-	62.3%	-	70.2%	-	82.6%	-	68.3%	-	75.4%	-	39.1%
Metal	53.8%	48.3%	28.5%	-	16.9%	-	13.3%	100.0%	-	-	3.8%	-	-	-	28.5%
Wood	35.8%	23.1%	43.6%	100.0%	20.8%	-	16.5%	-	17.4%	-	27.9%	-	24.6%	-	32.4%
Floor type															
Concrete	32.8%	51.7%	60.8%	-	87.9%	-	85.6%	100.0%	94.8%	-	88.6%	-	75.4%	-	63.7%
Coral / gravel / sand	2.3%	-	2.2%	-	2.1%	-	-	-	-	-	-	-	-	-	1.6%
Wood	64.9%	48.3%	37.0%	100.0%	10.1%	-	14.4%	-	5.2%	-	11.4%	-	24.6%	-	34.7%
Number of rooms															
1	2.4%	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6%
2	22.1%	23.1%	3.1%	-	3.9%	-	3.4%	-	-	-	-	-	24.6%	-	8.4%
3	42.3%	48.3%	21.6%	-	9.2%	-	3.4%	-	-	-	4.8%	-	-	-	20.8%
4	18.5%	28.6%	41.0%	100.0%	35.7%	-	26.8%	100.0%	11.5%	-	17.0%	-	44.9%	-	29.5%
5	9.6%	-	28.2%	-	36.0%	-	51.5%	-	32.6%	-	20.3%	-	-	-	25.6%
6	3.0%	-	6.1%	-	11.2%	-	12.2%	-	38.0%	-	50.1%	-	30.5%	-	12.0%
7 +	2.0%	-	-	-	3.9%	-	2.6%	-	17.9%	-	7.7%	-	-	-	3.0%

Table C1 (continued)

	Rental range (USD per annum)														Total
	0–2,000		2,000–4,000		4,000–6,000		6,000–8,000		8,000–10,000		10,000–12,000		>12,000		
	Imputed	Market	Imputed	Market	Imputed	Market	Imputed	Market	Imputed	Market	Imputed	Market	Imputed	Market	
Number of households by rental range	251	11	298	5	130	0	102	3	52	0	73	0	10	0	935
	Rental range (USD per annum)														Total
	0–2,000		2,000–4,000		4,000–6,000		6,000–8,000		8,000–10,000		10,000–12,000		>12,000		
	Imputed	Market	Imputed	Market	Imputed	Market	Imputed	Market	Imputed	Market	Imputed	Market	Imputed	Market	
Kitchen type															
Inside and outside the house	63.5%	-	79.7%	-	66.9%	-	64.7%	-	47.1%	-	80.7%	-	44.9%	-	68.2%
Inside only	31.8%	100.0%	20.3%	100.0%	33.1%	-	29.5%	100.0%	52.9%	-	19.3%	-	55.1%	-	29.9%
Outside only	4.7%	-	-	-	-	-	5.7%	-	-	-	-	-	-	-	1.9%
Sanitation facility															
Connection to public sewer	4.6%	51.7%	6.5%	-	2.4%	-	15.5%	-	30.5%	-	4.3%	-	30.5%	-	8.3%
Connection to septic tank	51.6%	23.1%	73.5%	100.0%	97.6%	-	70.8%	100.0%	60.5%	-	89.3%	-	69.5%	-	70.8%
Pour-flush latrine	2.3%	-	-	-	-	-	-	-	-	-	-	-	-	-	0.6%
Simple pit latrine	31.1%	-	19.1%	-	-	-	13.7%	-	9.0%	-	6.4%	-	-	-	16.9%
Ventilated improved pit latrine	10.4%	25.2%	0.9%	-	-	-	-	-	-	-	-	-	-	-	3.4%
State															
Ngarchelong	10.9%	-	12.6%	-	18.3%	-	-	-	6.6%	-	-	-	-	-	9.8%
Ngaraard	6.1%	-	10.4%	-	43.3%	-	-	-	9.9%	-	7.0%	-	-	-	12.1%
Ngiwal	7.0%	-	7.1%	-	-	-	20.6%	-	-	-	4.8%	-	-	-	6.7%
Melekeok	3.8%	28.6%	6.4%	-	4.8%	-	18.6%	-	30.5%	-	4.3%	-	30.5%	-	8.4%
Ngchesar	14.8%	-	14.6%	-	4.8%	-	3.0%	-	-	-	-	-	-	-	9.6%
Aimeliik	7.5%	-	5.4%	-	12.4%	-	21.2%	-	10.4%	-	3.7%	-	-	-	8.7%
Ngatpang	6.7%	25.2%	1.9%	-	6.4%	-	-	-	10.8%	-	19.1%	-	-	-	5.7%
Ngardmau	9.1%	-	7.7%	-	4.4%	-	-	100.0%	-	-	3.9%	-	-	-	6.1%
Ngaremlengui	19.3%	46.2%	4.3%	-	2.0%	-	-	-	4.9%	-	-	-	24.6%	-	7.9%
Angaur	9.3%	-	15.7%	-	-	-	-	-	-	-	-	-	-	-	7.5%
Peleliu	5.6%	-	14.1%	100.0%	3.6%	-	36.6%	-	26.9%	-	57.3%	-	44.9%	-	17.4%

Table C2: Distribution of urban household characteristics by tenure type and rental price range (amounts in USD).

	Rental range (USD per annum)															Total
	0–2,000		2,000–4,000		4,000 to 6,000		6,000–8,000		8,000–10,000		10,000–12,000		>12,000			
	Imputed	Market	Imputed	Market	Imputed	Market	Imputed	Market	Imputed	Market	Imputed	Market	Imputed	Market		
Number of households by rental range	488	280	718	200	665	102	254	32	248	13	61	8	264	8	3,342	
	Rental range (USD per annum)															
	0–2,000		2,000–4,000		4,000–6,000		6,000–8,000		8,000–10,000		10,000–12,000		>12,000			
	Imputed	Market	Imputed	Market	Imputed	Market	Imputed	Market	Imputed	Market	Imputed	Market	Imputed	Market		
Dwelling type																
Building attached to a business / other non-resident building	-	2.9%	2.2%	-	2.4%	-	-	-	-	-	-	-	-	-	1.2%	
Building with 2 or more apartments	6.0%	33.4%	5.6%	52.1%	4.8%	68.4%	-	75.0%	3.2%	-	-	100.0%	-	100.0%	12.5%	
Building with 2 or more HH sharing a kitchen toilet	9.3%	13.3%	-	-	-	-	-	-	-	-	-	-	-	-	2.5%	
One family detached from any other house	70.0%	26.7%	89.2%	34.7%	84.3%	23.7%	100.0%	-	74.1%	100.0%	91.3%	-	85.9%	-	73.2%	
One family house attached to own or more houses	13.1%	23.8%	3.0%	9.3%	8.4%	-	-	25.0%	22.6%	-	8.7%	-	14.1%	-	10.0%	
Other	1.6%	-	-	4.0%	-	7.9%	-	-	-	-	-	-	-	-	0.7%	
Roof type																
Concrete	14.8%	18.1%	7.8%	42.7%	19.3%	60.5%	13.6%	75.0%	36.6%	-	8.7%	100.0%	43.5%	-	21.9%	
Metal	83.6%	79.1%	90.0%	57.3%	80.7%	39.5%	81.2%	25.0%	63.4%	100.0%	91.3%	-	54.6%	100.0%	76.6%	
Other	-	-	-	-	-	-	2.1%	-	-	-	-	-	2.0%	-	0.3%	
Wood	1.6%	2.9%	2.2%	-	-	-	3.2%	-	-	-	-	-	-	-	1.2%	
Walls type																
Concrete	12.5%	26.7%	47.9%	72.0%	52.2%	68.4%	70.8%	100.0%	69.9%	39.6%	91.3%	100.0%	77.8%	100.0%	51.1%	
Metal	25.6%	16.2%	15.6%	4.0%	11.2%	7.9%	6.2%	-	2.1%	-	8.7%	-	8.1%	-	12.6%	
Other	-	-	-	-	-	-	2.1%	-	-	-	-	-	5.0%	-	0.6%	
Thatched / traditional	-	-	-	-	1.2%	-	-	-	-	-	-	-	-	-	0.2%	
Wood	61.8%	57.2%	36.4%	24.0%	35.4%	23.7%	20.9%	-	28.0%	60.4%	-	-	9.1%	-	35.5%	
Floor type																
Concrete	42.6%	60.0%	66.9%	84.0%	73.5%	92.1%	82.3%	100.0%	84.9%	39.6%	100.0%	100.0%	93.9%	-	71.3%	
Coral / gravel / sand	-	4.7%	1.1%	-	2.4%	-	2.1%	-	-	-	-	-	-	-	1.3%	
Other	-	2.9%	1.1%	-	-	-	2.1%	-	-	-	-	-	3.0%	-	0.9%	
Wood	57.4%	32.4%	30.9%	16.0%	24.1%	7.9%	13.5%	-	15.1%	60.4%	-	-	3.0%	100.0%	26.6%	
Number of rooms																
1	15.8%	35.2%	-	8.0%	-	15.8%	-	-	-	-	-	-	-	-	6.2%	
2	15.8%	31.5%	5.9%	28.0%	2.4%	15.8%	-	25.0%	-	-	-	-	-	-	9.1%	
3	21.9%	20.9%	15.6%	8.0%	10.9%	23.7%	7.3%	25.0%	-	-	-	100.0%	-	-	12.7%	
4	23.5%	7.6%	26.8%	31.9%	30.1%	31.6%	6.2%	50.0%	9.6%	-	8.7%	-	3.0%	100.0%	21.0%	
5	7.7%	2.9%	32.0%	16.0%	26.9%	7.9%	48.9%	-	12.9%	-	26.0%	-	29.3%	-	22.3%	
6	12.0%	1.9%	16.7%	8.0%	21.7%	5.2%	29.2%	-	57.0%	39.6%	47.9%	-	26.3%	-	20.0%	
7+	3.3%	-	3.0%	-	8.0%	-	8.4%	-	20.4%	60.4%	17.4%	-	41.4%	-	8.7%	

Table C2 (continued)

	Rental range (USD per annum)														Total
	0–2,000		2,000–4,000		4,000–6,000		6,000–8,000		8,000–10,000		10,000–12,000		>12,000		
	Imputed	Market	Imputed	Market	Imputed	Market	Imputed	Market	Imputed	Market	Imputed	Market	Imputed	Market	
Number of households by rental range	488	280	718	200	665	102	254	32	248	13	61	8	264	8	3,342
	Rental range (USD per annum)														Total
	0–2,000		2,000–4,000		4,000–6,000		6,000–8,000		8,000–10,000		10,000–12,000		>12,000		
	Imputed	Market	Imputed	Market	Imputed	Market	Imputed	Market	Imputed	Market	Imputed	Market	Imputed	Market	
Kitchen type															
No, designated cooking area	1.1%	0.0%	2.2%	0.0%	0.0%	7.9%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	1.1%
Yes, inside and outside the house	27.8%	24.8%	29.7%	12.0%	34.1%	15.8%	52.0%	0.0%	38.7%	0.0%	43.4%	0.0%	32.4%	0.0%	30.7%
Yes, inside only	66.7%	66.6%	65.1%	88.0%	61.1%	76.3%	46.0%	100.0%	61.3%	100.0%	43.4%	0.0%	64.6%	100.0%	64.6%
Yes, outside only	4.4%	8.6%	3.0%	0.0%	4.8%	0.0%	2.1%	0.0%	0.0%	0.0%	13.2%	0.0%	3.0%	0.0%	3.6%
Sanitation facility															
Connection to public sewer	55.9%	68.7%	59.3%	80.1%	77.2%	94.8%	34.7%	100.0%	71.2%	60.4%	21.9%	100.0%	72.9%	100.0%	65.5%
Connection to septic tank	24.4%	23.7%	31.1%	17.3%	18.0%	5.2%	65.3%	-	25.6%	39.6%	69.4%	-	21.1%	-	27.0%
Simple pit latrine	14.8%	2.9%	5.2%	-	1.2%	-	-	-	-	-	-	-	-	-	3.8%
Ventilated improved pit latrine	4.9%	4.7%	4.4%	2.6%	3.6%	-	-	-	3.2%	-	8.7%	-	6.1%	-	3.8%
State															
Airai	22.7%	11.3%	16.1%	7.9%	7.1%	5.2%	62.1%	-	19.1%	39.6%	86.8%	-	12.0%	-	18.6%
Koror	77.3%	88.7%	83.9%	92.1%	92.9%	94.8%	37.9%	100.0%	80.9%	60.4%	13.2%	100.0%	88.0%	100.0%	81.4%