

# The Financial Competency of Low-Income Households in Samoa



**PFIP**

Pacific Financial  
Inclusion Programme



**Australian  
AID**





## **Pacific Financial Inclusion Programme**

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## Foreword

The widespread and very low levels of financial literacy in Pacific island countries (PICs) is seen as a pervasive impediment to achieving greater economic dynamism and financial security at household level. Low levels of money management knowledge suppress demand for financial services and pose a very real challenge to achieving more inclusive financial markets in the region.

In recognition of the importance of financial literacy, Pacific central bank Governors and Ministers of Finance and Economic Development, in 2009, endorsed the Money Pacific Goals where, by 2020, each Pacific Island nation, through the combined actions of public and private sectors, will ensure that:

- All schoolchildren to receive financial education through core curricula;
- All adults to have access to financial education;
- Simple and transparent consumer protection to be in place; and
- Halve the number of households without access to basic financial services.

Until now, no PIC has a comprehensive picture of how financially literate their people are – especially those who are most vulnerable. The absence of such a baseline limits the ability of PICs to put in place well researched policies and targeted strategies to create a financially competent population.

Significantly financial literacy has now gained acceptance by the development partners in the Pacific as integral to developing a financial sector that is inclusive, generates growth and creates sustainable livelihoods. With the increasing interest and proliferation of financial literacy training programmes a financial competency baseline offers a framework to optimize the use of scarce resources and to reach those most needy as well as to assess the efficacy of these training programmes.

With the financial support of AusAID, the Pacific Financial Inclusion Programme (PFIP) undertook to measure the financial competency of low income adults in 4 PICs – Fiji, Papua New Guinea, Samoa and Solomon Islands. A new and well-tested methodology was developed to undertake this work in partnership with each of the central banks using exclusively local enumerators and the deployment of an electronic survey instrument. In each of the 4 countries, the results of the survey have been used to develop a national financial literacy strategy led by the respective central banks.

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## **Executive Summary**

This report examines the financial competence of low income households in Samoa. The financial competencies measured by the study, were determined by asking rural and urban low income households in Samoa to describe the financial activities they needed to be able to undertake, to manage their cash-flows effectively. These competencies were reviewed by a panel of in-country subject matter experts.

Overall, the study has found that adults who are responsible for financial management in low income households, demonstrate generally low or low-moderate levels of financial competence across most aspects of household financial management. This means these households are not able to competently undertake the financial activities they need to undertake, to manage their finances effectively. This lack of competence may be due to several factors: Access to financial services, knowledge of how to use financial services and manage money, or attitude to money and financial services generally. If low income households in Samoa can increase their level of financial competence, then the household's ability to increase the wellbeing of its members through better management of household cash-flows, will also increase.

Those households in which the adults responsible for the management of household finances work together to manage current household cash-flows, plan and budget future cash-flows, and have a bank account, are generally more financially competent than households in which adults do not work together in these areas. One notable feature of household financial management in low income households in Samoa is a generally passive approach to financial management and a short term focus. The lack of pro-active management is likely to inhibit the effective management of the household's finances.

Overall, women appear to be more competent managers of household finances in low income households in Samoa. Gender is a predictor of financial competence. If the person responsible for the management of household cash-flows is a woman, the overall level of competence at the management of household cash-flows is likely to be higher.

Urban households are generally more financially competent than rural households. In part, this is due to greater engagement with the formal financial system, for transactions, savings, borrowing and retirement provision. Financial competence diminishes, the further the household is from Apia.

The findings from the study suggest several policy issues. The pervasive low levels of financial management, the very low levels of understanding of the cost of money and the generally passive

approach to financial management potentially expose low income households in Samoa to several risks. These include the risk of exploitation by financial predators, the risk of ineffective use of household cash-flows, the risk of households being vulnerable to financial shocks and the risk of poverty in old age (particularly for urbanised households and households with weaker social support structures). There is a need to increase understanding of the cost of money, to encourage a more pro-active approach to household financial management, to continue to promote financial inclusion and to increase financial literacy.

## Chapter One: Introduction

This study of the financial competence of low income households in Samoa provides an important baseline against which to measure progress in improving the financial behaviour of financial decision makers in low income households in Samoa. In addition, outcomes from initiatives to increase participation in the formal financial system, can also be measured against the baseline.

The objective of the study has been to measure the level of financial competence of low income households in Samoa. This report both establishes the baseline and discusses key aspects of the financial behaviour of low income households in Samoa relative to the baseline. The study has sought to develop an understanding of how low income households in Samoa manage their household finances and engage with the formal and informal financial systems.

A key output from the study has been the development of a set of domain-specific baseline indicators of the financial competence of those who are responsible for making financial decisions on behalf of their household, in addition to the summary indicator. The indicators used are taken from the Minimum Adult Financial Competency Framework for Low income Households in Pacific Island Countries<sup>1</sup> and encompass modes of payment used by the household, management of household income and expenditure, the financial products used by the household (both formal and informal), and the planning and budgeting for future income and expenditure undertaken by the household.

The study has been overseen and managed by the Central Bank of Samoa. The Samoa Bureau of Statistics (SBS) undertook fieldwork while the Pacific Financial Inclusion Programme (PFIP) developed the research methodology and provided financial and technical support. PFIP is a joint programme of the United Nations Capital Development Fund (UNCDF) and United Nations Development Programme (UNDP) with additional funding support from the Australian Agency for International Development (AusAID) and the European Union/African, Caribbean and Pacific Microfinance Framework Programme (EU/ACP). The mission of PFIP is to increase by 500,000 the number of low income and rural households, micro and small enterprises in Pacific Island Countries (PICs) that have on-going access to quality and affordable financial services by 2013.

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<sup>1</sup> Sibley, J.E., Liew, J.P. (2011) Minimum Adult Financial Competency Framework for Low Income Households in Pacific Island Countries. PFIP, Suva.

## **Chapter Two: Overview of the Financial Competence of Low Income Households in Samoa**

### **2.1. The Financial Competence of Low Income Households**

#### **a) Levels of Financial Competence**

Low income households in Samoa generally exhibit low levels of financial competence. Households that participated in this study are a representative sample of low income households in Samoa, and encompass all adult age groups, and both urban and rural locations. The principal conclusion from this study is that most low income households in Samoa are not demonstrating competence in the financial activities that low income households stated they need to be able to undertake, to manage their household finances successfully. In particular, households typically exhibit a passive approach to the management of household finances and have a short term focus. Rural communities exhibit lower levels of financial competence than urban communities.

There are several characteristics of financial management in low income households, typical across most households in the survey, which may warrant a policy and program focus to increase levels of financial competence:

- **Persistence of cash payments.** Most households continue to use cash payments. This does not appear to relate to employment or proximity to financial services. Cash payments not only have potentially higher risks (particularly cash remittances), but can also incur higher transaction costs. The use of cash payments limits household savings activity and, in addition, cash payments have no record and it is consequently more difficult for the household to manage household cash-flows.
- **High levels of remittances.** High levels of internal and external remittances are a feature of the financial life of low income households in Samoa. Internal remittances continue to be cash-based. External remittances tend to be received electronically. However, funds are then withdrawn in cash.
- **A passive approach to household financial management.** The majority of adults in the household who stated they were responsible for the management of the household's finances also repeatedly stated they were not personally responsible (individually or jointly) for most aspects of household financial management. In addition, most households do not

budget, or keep financial records. This further limits the household's ability to manage cash-flows.

- **A short-term focus.** Households exhibit higher levels of financial competence at managing short-term cash-flows (for example management of essential expenditure) than the management of longer term finances (for example planned expenditure). A further issue is the high level of expected dependence on children to provide for retirement and the limited active provision for retirement.

These issues in respect to low financial competence are broad and encompass most aspects of household financial management. Importantly, the competency set measured, has been identified by low income households as the minimum required to be able to manage their cash flows effectively. With the exception of the management of essential household expenditure and household goal setting, low income households have demonstrated low, or at best, moderate levels of competence in respect to all competencies identified as essential.

As is shown in Table 1, no financial competence score was rated as 'High', one competency was rated 'Moderate-High', six competencies were rated 'Moderate-Low' and six competencies were rated 'Low'. The significant number of competencies which can be categorised as 'low' is of particular concern as key competencies in which households appear to have a limited ability to manage competently include:

- managing the cost of money (which may mean households have a limited understanding of the cost of financial services and are therefore vulnerable to exploitation)
- managing borrowing (which may mean households are vulnerable to predatory lending), and
- managing budgeting (which may mean households have a limited ability to manage household cash flows).

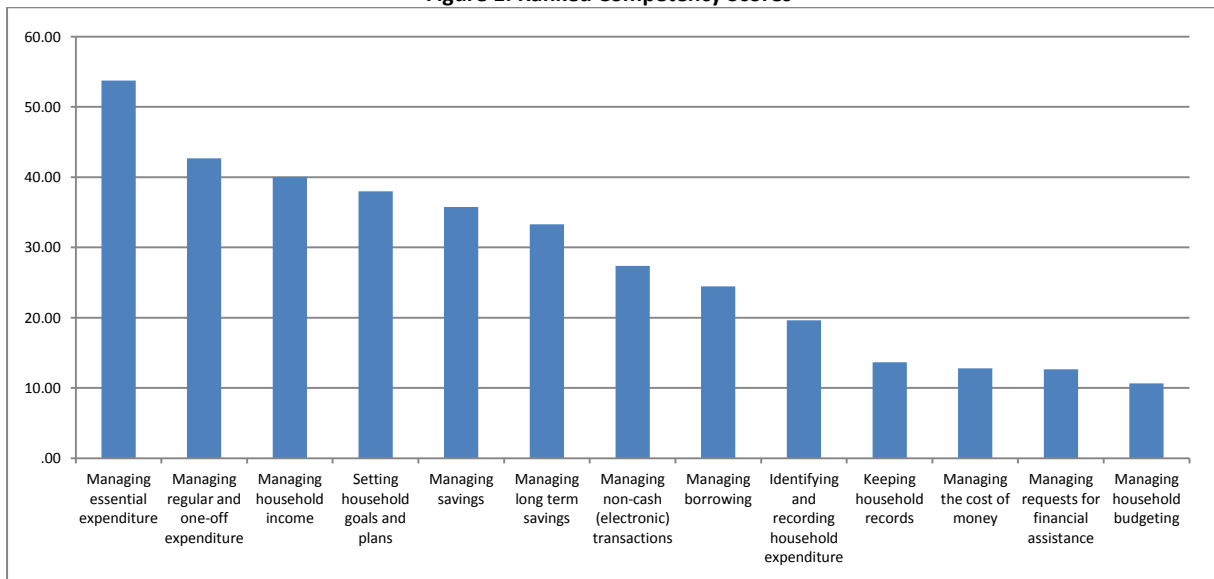
Most households have demonstrated low-moderate competence at managing financial services (whether formal or informal). These households are not, therefore, able to use transaction services, savings products and credit to assist in the efficient and effective management of the household's income and expenditure and to enhance the household's ability to fund assets that can increase the household's wellbeing. Low income households also have limited competence at managing expenditure that must be planned in advance. This includes recurrent expenditure, preparation for unforeseen expenditure and saving in preparation for a time when the main income earners in the household will no longer be working.

**Table 1: Categorisation of Competence Scores**

High	-
Moderate - High	Competence with managing essential expenditure
Low-Moderate	Competence with managing regular and one-off expenditure Competence with managing household income Competence with setting household goals and plans Competence with managing savings Competence with managing long-term savings Competence with non-cash transactions
Low	Competence with managing borrowing Competence with identifying and recording household expenditure Competence with keeping household records Competence with managing cost of money Competence with managing requests for financial assistance Competence with household budgeting

The average financial competence score for the competencies measured, is shown in Figure 1. The competencies have been ranked from highest to lowest (with a maximum score of 100). Low income households are generally more competent at managing day-to-day (essential) household expenditure. They are least competent at keeping household records, managing requests for financial assistance, household cash flow budgeting and managing the cost of money.

**Figure 1: Ranked Competency Scores**



Overall, households which manage the household’s finances jointly and which have a budget are more likely to be financially competent than households that manage household finances individually. However, there appears to be a pervasive and significant issue in respect to the determination of who in the household is responsible, individually or jointly, for the management of the household’s finances. Even though the interviews for the survey were undertaken with the principal financial actors of the household (usually two principal financial actors – male and female),



as shown in Table 2, most respondents appear to believe someone else in the household is responsible for managing the household's finances. This applies across all aspects of financial management examined by the survey, to men and women, across all age groups and all regions. Overall, only 34% of respondents considered they were, solely or individually, responsible for management of the household's finances, while 60% of respondents considered someone else in the household (usually the spouse) was responsible. 6% of respondents stated no one was responsible.

**Table 2: Responsibility for Management of Household Finances**

	<b>Self/ Self and Spouse manage</b>	<b>Spouse/ Someone else manages</b>	<b>No one manages</b>
Checking household income	41%	55%	4%
Managing overall household spending	38%	62%	1%
Managing household spending on essential items	39%	60%	1%
Managing regular household expenses	39%	58%	2%
Managing household's one-off expenses	34%	64%	1%
Managing requests for financial assistance	29%	65%	6%
Managing household financial documents	25%	59%	16%
Managing household cash reserves	38%	59%	3%
Saving for self/self-spouse old age	17%	52%	31%
Managing household's loans	40%	52%	8%
Planning how household income will be used	27%	73%	0%
Setting household financial goals	39%	59%	2%
Setting/ managing budget	37%	63%	0%
Average	34%	60%	6%

There are also significant issues with respect to key competencies relating to engagement with the formal financial system and a persistent preference for cash transactions (including the use of cash remittances). There may also be an emerging issue in respect to retirement provision in low income households as urbanisation increases, as does the likelihood that social pensions will be replaced by financial provision. It is likely that many low income households are making inadequate financial provisions for retirement. Overall, financial competence, across all aspects of financial activity, diminishes with age. This is a consistent trend across low income households in Samoa, and across low income households in other Pacific island countries in which base-line studies have been completed.

## **b) Risks resulting from Low Levels of Financial Competence**

The low level of financial competence exposes low income households to several significant risks:

- **The risk of exploitation by financial predators** due to a limited understanding of the actual cost of financial services and the risks associated with the financial services products and service providers. Low income households are at significant risk of incurring exploitative costs for financial services, whether these are transaction services (both domestic and international), savings services, or borrowing (both formal and informal). Households are also at heightened risk of unknowingly participating in financial scams.
- **The risk of ineffective use of household cash-flows.** Households which do not know the pattern of income and expenditure in the household are at risk of failing to use household cash flows effectively. These households have a more limited ability to build savings in order to provide for regular households requirements and are more likely to have to borrow for consumption expenditure.
- **The risk of households being vulnerable to financial shocks.** Households which are not financially competent are likely to have a reduced ability to withstand financial shocks, and are less likely to be able to use credit effectively to increase household assets and the household's income generation capability.
- **The risk of poverty in old age.** It appears the very pervasive reliance by low income households on family or community support in retirement. This may not be adequate in a monetised economy. Low income households appear to be very aware of this problem. Most respondents in households which were currently working did not consider the forms of retirement provision available to the household (including family and community support) would meet all household expenses when they were no longer working. Most respondents who were no longer working stated the forms of income available to them (including family and community support) were inadequate to meet all household expenses. Between 20 – 25% of respondents did not know how they would meet household expenses when they were no longer working.

Each of the risks is significant and potentially systemic. Low income households will require support through a range of interventions to enable the financial decision makers in the household to increase their level of financial competence. This will require a mix of education, product provision, and regulation and policy settings.

### **c) Predictors of Financial Competence**

Multiple regression analysis was conducted to examine the impact of location, age, gender, source of income, English language fluency, participation in the formal financial system, and the mode of household financial management, on overall financial competence.

Overall, the model explained 43.7% of the variance in the financial competence score. Five variables were significant (refer Appendix, Table 37): Gender (women), ability to communicate in English, the household's engagement with the financial system as measured by the number of financial products owned by the household, the household's ability to manage cash flows as measured by whether the household manages money jointly, and, having a budget. Women in low income households in Samoa appear to be consistently more competent at managing money than men. Ability to communicate in English is likely to influence engagement with the formal financial system. The number of financial products owned by the household is an indication of the depth of engagement with the financial system, in particular the formal financial system. The household having a budget and the household managing finances jointly is an indicator of the extent to which the household plans and actively manages its cash flows as a household.

## **2.2. Location Differences in Financial Competence**

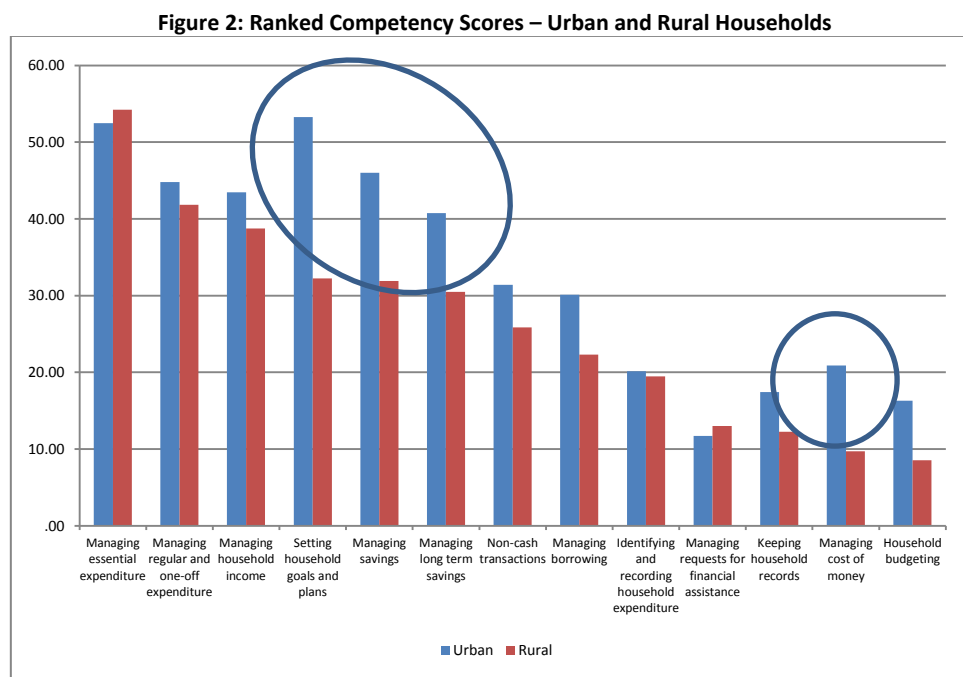
The average financial competence score for the competencies measured, is shown in Figure 1. Rural and urban households have been shown separately. The competencies have been ranked from highest to lowest (with a maximum score of 100).

Overall, low income households are generally more competent at managing day-to-day household expenditure than managing household borrowing, household cash flow budgeting, and managing the cost of money.

However, there are significant, location-based differences. For example, competencies in which urban households demonstrate a significantly higher level of competence are primarily those that relate to interaction with the financial system (both product ownership and usage and transaction competencies), and may be a consequence of higher levels of wage/ salary employment in urban communities, although the linkage between wage employment and ownership of bank accounts appears to be relatively weak in Samoa. Nevertheless, urban households typically owned 1.6x the

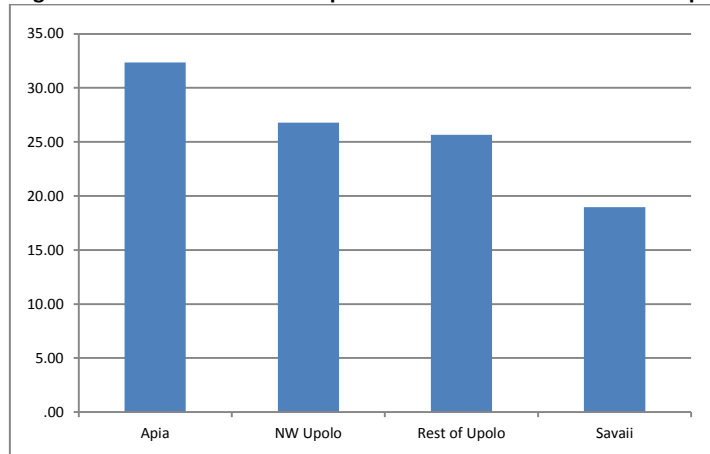
number of financial products owned by rural households and were significantly more likely to use credit than rural households. Urban households were also more likely to state that the household set financial goals had a financial plan and had a budget.

The competencies measured by the study have been ranked from highest to lowest. Low income households are generally more competent at managing household income and expenditure in particular day-to-day household expenditure, than they are at managing other financial activities. Households are least competent at managing the critical activities of household cash flow budgeting and managing the cost of money.



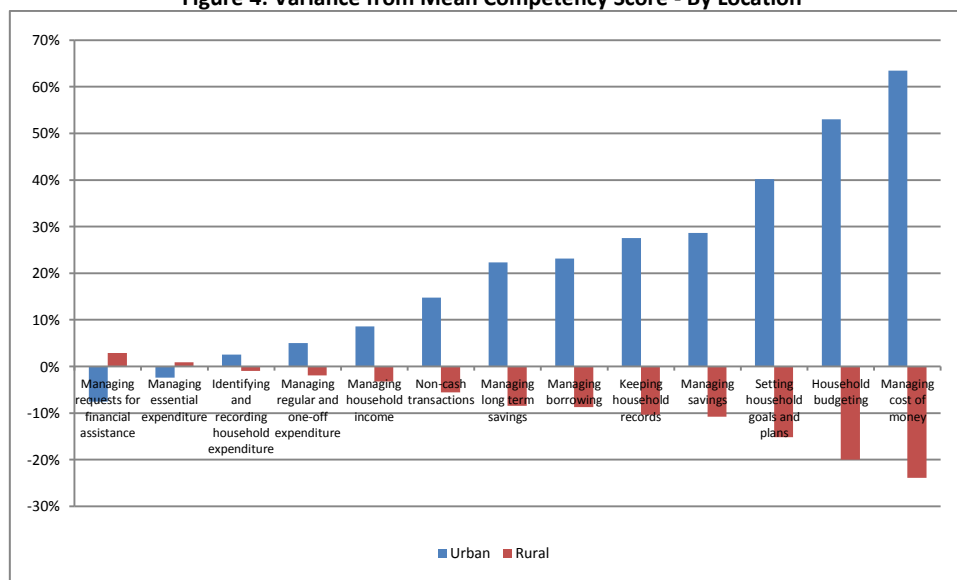
Urban, low income households for whom the principal source of income is wages/salary, are more likely to be financially competent than other households. Competence appears to decline, the greater distance the household is from Apia. The average level of competence for the four regions is shown in Figure 2. This suggests priority may need to be given to increasing the level of financial competence of low income households in the more remote regions of Samoa, in particular Savaii.

**Figure 3: Level of Financial Competence Relative to Distance from Apia**



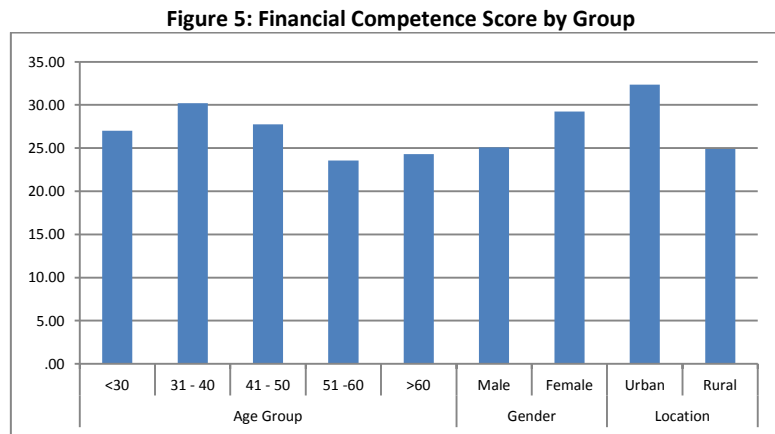
The relative average levels of difference in individual competence between urban and rural communities is shown in Figure 3, which shows the variance from the mean level of financial competence, for each financial competence, comparing urban and rural households. Urban households demonstrated greater financial competence in eleven out of the thirteen competencies measured. They also demonstrated significantly greater levels of competence in respect to competence with the cost of money, household budgeting, and setting household plans and goals.

**Figure 4: Variance from Mean Competency Score - By Location**



### 2.3. Gender Differences in Financial Competence

As discussed above, women appear to be consistently more financially competent than men. As shown in Figure 4, at the level of overall financial competence, women demonstrated slightly higher financial competence than men. This however, masks differences which become evident when specific competencies are considered.



Men generally report higher levels of usage of electronic transactions as well as higher levels of receipt of remittances (a significant percentage of which were electronic). Men were also more likely to report receipt of superannuation or pension income. However, men also appear to accept less responsibility for the management of longer term or irregular financial commitments than women. Women were also more likely to accept responsibility for the management of the household's borrowings than men.

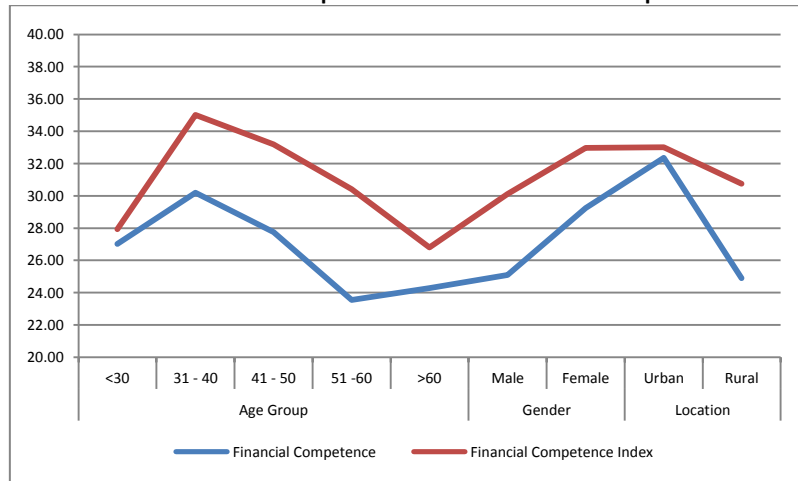
Overall, gender is a predictor of the household's ability to manage money. If the person principally responsible for the management of the household's cash flows is a woman, the overall level of competence at the management of household cash-flows and finances is likely to be higher.

### 2.4. Developing an Easily Administered Indicator of Financial Competence

The three statistically significant financial management variables which predict financial competence (number of financial products owned, managing income jointly and the household having a budget) were indexed (using equal weighting) and correlated with the financial competence indexed value. The correlation ( $r$ ) was 0.423 ( $p < .001$ ). The two scales are shown in Figure 5. There appears to be

reasonable correlation between the scales. Further sampling is required, however, it may be possible to use the three financial management variables as a simple and readily administered indicator of financial competence in low income households.

**Figure 6: Correlation of Financial Competence Scale and Financial Competence Indicator Scale**



A second regression model was developed excluding ownership of a savings account, the number of financial products owned, and the household having a budget, as these variables had been included in the analysis of competence. And, whilst the individual contribution to the overall score by each variable was small, it is useful to understand indicators which are not components of domain level financial competence (Refer Appendix: Table 38). The predictive power of the model was, as expected, lower ( $R^2=.176$ ). Nevertheless, the model indicates urban households in which women are actively involved in the management of the household’s finances and in which the principal financial actors speak fluent English and work for regular wages or salary or have a business, are the most likely low income household group to exhibit higher levels of financial competence.

## **Chapter Three: Adult Financial Competency Framework for Low Income Households in Pacific Island Countries**

### **3.1. What is Competence?**

Competence is a person's ability to interact with their environment: both their physical environment and their personal and social environments. Competence is fundamental to enabling people to live a successful and rewarding life.

Competence is developed over time, through the learning that occurs as a consequence of an individual's interactions with their environment. An individual's set of competencies will evolve over time, as the contexts in which they function, changes. The definition and selection of competencies considered to be important, are influenced by what's considered important by societies, institutions, communities, groups and individuals within society.

Competence can be divided into component elements that can be codified at varying levels of specificity. This facilitates measurement. Inherent in the concept of competence is the specification of contextual competencies - the things a person needs to be able to do to engage effectively with their environment in a particular situation.

#### **a) Constraints to competence**

There can be a range of environmental and service-related constraints to competence. People may not have access to the basic services they need to be able to function effectively. The support services available to a person may be inadequate to enable them to function at the required level of competence. Alternatively, a person may be denied access to the required support services, or may be prevented from accessing services due to factors such as cost or accessibility. By determining the set of competencies a community or group of people require to interact successfully with their environment, the various constraints to competence can also be determined. This provides a basis for policy and programme development and programme impact measurement.



## **b) Individual constraints to competence**

A person may have individual constraints to competence. They may lack the skills required to interact successfully with their environment, or may have a disability which necessitates support to enable them to successfully interact with their environment. By determining the set of competencies a person requires, individual support and intervention requirements can be determined.

### **3.2. What is Financial Competence?**

Financial competence comprises the set of specific behaviours a person must be able to enact, in order to successfully use money and interact with the financial system.

A person's financial competency set will be influenced by both individual capabilities relating to financial knowledge and skill, and social capabilities relating to financial inclusion. The situations in which competent financial behaviour must be demonstrated, and the components of the competency set will vary depending on a person's circumstances, from the relatively simple (for example, a rural community commencing engagement with the money economy) to the highly complex (for example, the requirement to be competent at making individual retirement provision in a society with a complex financial system and a regulatory environment which requires formal individual provision for retirement savings).

People who make financial decisions on behalf of their household must also be competent at managing money on behalf of other members of the household. They must be able to manage the household's finances successfully, and, be able to differentiate between their own personal money and the household's money.

The competency set is therefore situation-specific and defined by a person's mode of financial engagement with their environment and is likely to change over time. In a monetised economy, financial competence is a core component of the set of competencies required to function effectively.

The financial competency set which has been used to examine the financial competence of low income households in Samoa is the Minimum Adult Financial Competency Framework for Low Income Households in Pacific Island Countries<sup>2</sup>.

### **3.3. Minimum Adult Financial Competency Framework for Low Income Households in Pacific Island Countries**

#### **a) Overview of the Framework**

The Minimum Adult Financial Competency Framework for Low Income Households in Pacific Island Countries is an outline of the set of competencies essential for people living in low income households, who make financial decisions on behalf of their household and manage their household's finances, to manage money successfully and to interact effectively with the formal and informal financial system. The Framework was developed for those responsible for policy formulation, programme design and programme measurement.

The Framework was developed from the ground-up during 2010 and 2011. A series of focus groups were held with adults from low income households in four Pacific island countries: Samoa, Solomon Islands, Fiji and Papua New Guinea. The purpose of the focus groups was to develop an understanding of the financial activities the household needed to be able to undertake successfully. Whilst there are differences in emphasis in the activities between communities, the set of activities people stated they needed to be able to engage in, was relatively consistent. It is evident, for example, that adults in low income households in the Pacific place a greater emphasis on earning income from a range of sources and managing a variety of forms of credit, including informal credit and reciprocal obligations to family or community members, than is typically evidenced in middle-income households in a developed country. By contrast, low income households demonstrated less emphasis on saving for retirement than middle-income households in a developed country.

Following the determination of financial activities by the focus groups in each country, a draft set of competencies, encompassing knowledge, skill and behaviour, was developed. The competencies are simply a statement of the specific knowledge, skill (understanding), and behaviours required to undertake the activity successfully.

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<sup>2</sup>Refer Appendix.

The initial competency set was developed from earlier research undertaken in Fiji<sup>3</sup> and Solomon Islands<sup>4</sup> for the Adult Financial Capability Framework<sup>5</sup> developed by the Financial Services Authority and the Basic Skills Agency in the UK. The draft competencies were then workshopped with the reference group of subject matter experts in each country. Following completion of the focus groups and workshops, the completed draft set of competencies was then circulated to each of the reference groups.

## **b) Structure of the Minimum Adult Financial Competency Framework**

The four domains of the Pacific Framework are derived from the financial domains determined by Baseline Study of Financial Capability undertaken by the Financial Services Authority in the UK<sup>6</sup>. The structure of the Minimum Adult Financial Competency Framework for Low income Households in Pacific Island Countries is based on the Adult Financial Capability Framework developed by the Financial Services Authority and the Basic Skills Agency in the UK.

## **c) Focus of the Minimum Adult Financial Competency Framework**

A set of financial competencies can never be definitive. However, the competencies are intended to be a reasonable encapsulation of the minimum set of financial knowledge, skill and related financial behaviours currently required by an adult living in a low income household in a Pacific island country, who manages finances on behalf of his or her household. Importantly, the focus of the Framework is on financial activities required to be undertaken by adults who make financial decisions and manage the finances of their household. The Framework does not encompass the income-generating activity of the household; in particular the focus is on the financial competencies required to manage farming, fishing or business activity. In addition, the receipt of group-based rent or royalty income is a feature of a number of Pacific island communities. The Framework does not describe financial competencies required to be able to manage funds flows from group-based income on behalf of the recipients of the income.

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<sup>3</sup>Sibley, J.E. (2010). Financial Capability, Financial Competence and Wellbeing in Rural Fijian Households, UNDP, Suva.

<sup>4</sup> Sibley, J.E. (2008) The Relationship between Adult Financial Competence and Household Wellbeing in Indigenous Rural Households in the Solomon Islands. UNDP, Honiara.

<sup>5</sup>Financial Services Authority, Basic Skills Agency (2006).Adult Financial Capability Framework.FSA. London

<sup>6</sup>Financial Services Authority. (2006). Financial Capability in the UK: Establishing a Baseline. FSA, London.

## Chapter Four: Domain Level Analysis of the Financial Competence of Low Income Households in Samoa

### 4.1. Structure of the Analysis

The domain level analysis of the financial competence of low income households is structured as follows:

1. An initial descriptive analysis of the participants in the study
2. An analysis of the financial competence for each of the financial competence domains in the Adult Financial Competency Framework and factors which may predict domain-level financial competence using a standard set of dependent variables

#### a) Financial Domains

The Adult Financial Competency Framework has adopted a domain structure derived from the financial domain structure developed by the FSA for the baseline study of financial capability in the UK<sup>7</sup>. Within domains, competencies have been grouped into activity-level sub-sections derived from the focus groups to determine the competency set for low income households in the Pacific. These are summarised in Table 3:

**Table 3: Financial Competency Domains and Activities**

Domain	Activity-Level Sub-Section
Managing Money	Making payments
	Managing household income
	Managing household expenditure
	Keeping Household records
Making financial choices	Saving
	Investing
	Borrowing
	The cost of money and financial terms and conditions
	Financial organisations and financial issues
Planning Ahead	Planning
	Budgeting
Getting Help	Seeking financial Advice

<sup>7</sup>Financial Services Authority. (2006). Financial Capability in the UK: Establishing a Baseline. FSA, London.

The analysis of each domain proceeds as follows:

- Introductory overview of the domain, activity-level subsections and competencies
- Analysis of activity-level sub-sections, and within sub-sections analysis of competencies
- Factor analysis of each domain to determine a domain score
- Regression analysis of factors which may indicate domain-level financial competence

The first part of the activity-level sub-section analysis explores differences in the patterns of response for the competencies within the sub-section. A standard set of respondent categorical variables has been used for the analysis:

- Age group
- Gender
- Location of residence (rural or urban)

## **b) Competency Scores**

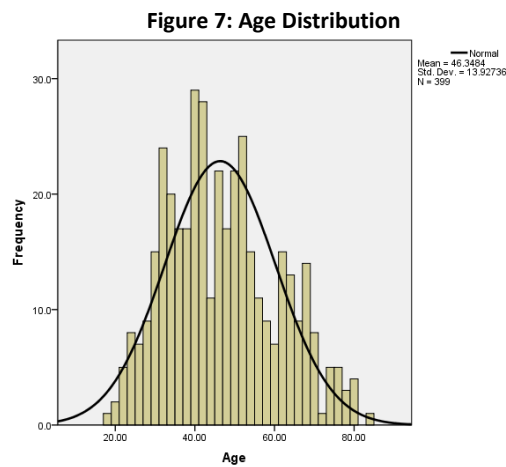
A summative financial competence score has been developed for each competency. Different people have different levels of activity and perform those activities at different levels of competence. A competence score needs to reflect this. It is inappropriate to score competencies which measure an activity someone may not engage in, as 'incompetent'. Competency scores were averaged to create activity-level scores. Refer to Section 6.6 for an overview of the construction of the financial competency scores. Refer to the Appendix (Table 32) for the variables used for the regression models.

## **4.2. Demographic Overview**

The households that participated in the study are broadly representative of low income households in Samoa and exhibit the following demographic characteristics.

## a) Gender and Age Distribution

The objective of the sampling was to select a representative sample of adults in low-income households in Samoa, who make financial decision on behalf of their household. There was no target age distribution. Respondent age was normally distributed around 46 years (refer Figure 6). The age distribution was relatively consistent for both men (M=47.33) and women (M=45.32) and is comparable to that of similar studies in other Pacific island countries.

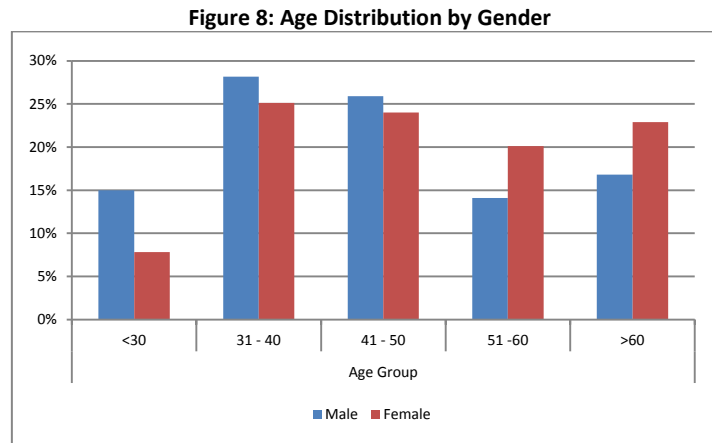


The gender mix of the sample is biased to men (refer Table 4). This is a function of the age profile of the sample. As shown in Figure 7, the gender mix of the sample varies with age. There is a bias to men in the younger age groups and a bias to women in the older age groups. This pattern is similar to that of the Samoan population generally<sup>8</sup>.

**Table 4: Gender**

		N	%
Gender	Male	220	55%
	Female	178	45%

<sup>8</sup> <http://www.sbs.gov.ws/Portals/138/PDF/PopCensus/Ch%202%20-%20Demographic%20characteristics.pdf>



The average household size for participants in the study was 9.5 members<sup>9</sup>. This is larger than the average household size of 8 members<sup>10</sup>. The dependency ratio is also higher at 97%, compared to the average dependency ratio for Samoan households of 75% (2010<sup>11</sup>).

## b) Location

A broad regional distribution was achieved. As shown in Table 5, the urban/rural mix (Urban =27%, Rural = 73%) was slightly above that for the overall population (Urban =20%, Rural = 80%)<sup>12</sup>. The sample for Savaii is slightly lower than for the overall population.

**Table 5: Comparison of Sample and Household Income and Expenditure Survey by Region**

	Interviewees	Households Sample	% Sample	Households HIES Deciles 1-4 %
<b>UPW Urban</b>	109	58	27%	20%
<b>NW Upolu</b>	121	66	30%	32%
<b>Rest of Upolu</b>	116	62	29%	25%
<b>Savaii</b>	53	31	14%	23%

<sup>9</sup>SBS, 2008 HIES

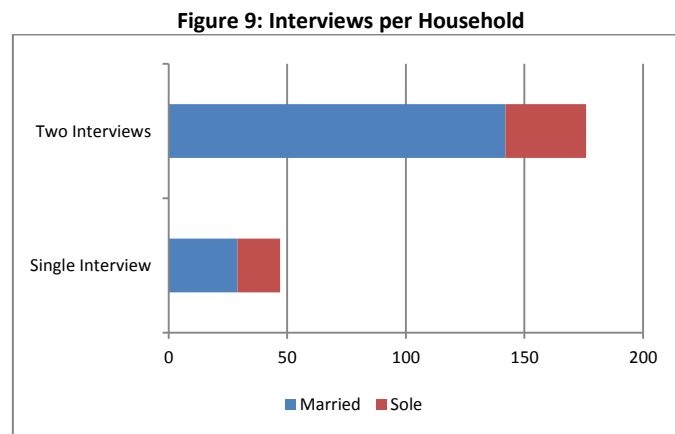
<sup>10</sup> <http://www.sbs.gov.ws/Statistics/Social/DemographicIndicators/tabid/3345/language/en-US/Default.aspx>

<sup>11</sup> <http://www.indexmundi.com/facts/samoa/age-dependency-ratio>

<sup>12</sup> <http://www.britannica.com/EBchecked/topic/520589/Samoa>

### c) Number of Principal Financial Actors per Household

The intention in sampling for the study was to interview both the males and the females who made most of the financial decisions on behalf of the household, or in cases of single headed households, with the sole financial decision maker. This objective was achieved. The mix of interviews is shown in Figure 8; 78% of respondents interviewed were from a household with two PFA's (usually married). Approximately 7.5% of interviews were undertaken in households with a single financial decision maker.



### d) English Language Fluency

As shown in Table 6, approximately 60% of respondents considered they could speak, read and write in English well enough to communicate on their own with a government office or bank. There was little regional variance, or gender variance. However, English language capability diminishes very significantly with age.

**Table 6: Ability to Communicate in English**

	Gender		Age Group				
	Male	Female	<30	31 - 40	41 - 50	51 - 60	>60
Speak, read and write	63%	61%	79%	75%	64%	57%	36%
Speak or read or write	10%	4%	9%	7%	8%	7%	5%
Cannot communicate in English	27%	34%	13%	18%	28%	36%	56%



### e) Access to a Mobile Phone

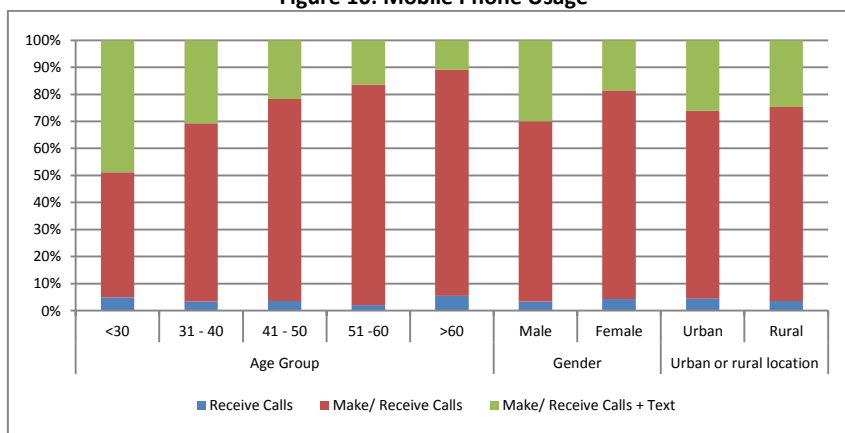
Approximately 81% of respondents stated they owned or had access to a mobile phone. As shown in Table 7, mobile phone ownership or access decreases markedly with age. Ownership also appears to be slightly higher in urban communities and by men.

**Table 7: Own or Have Access to a Mobile Phone**

Age Group	<30	91%
	31 - 40	85%
	41 - 50	84%
	51 -60	73%
	>60	71%
Gender	Male	83%
	Female	79%
Location	Urban	85%
	Rural	79%

As shown in Figure 9, respondents who have a mobile phone, or who have access to a mobile phone, appear to be very competent in the use of mobile phones for voice communication. However, the range of mobile phone functions used, diminishes sharply with age. Men appear to be slightly more likely to use a phone than women, although to some extent this is a function of the younger average age of men. There is no difference in mobile phone usage between rural and urban communities.

**Figure 10: Mobile Phone Usage**



### 4.3. Domain 1: Managing Money

The financial competency domain Managing Money encompasses a range of activities relating to household cash-flow management. These activities encompass the household's current (rather than future) use of money. The domain encompasses the following groups of competencies:

- Making and receiving payments
- Managing household cash-flows - both funds coming into the household and expenses incurred by the household
- Keeping records of the household's financial transactions.

#### a) Making and Receiving Payments

The use of electronic payment modalities is central to exchange transactions in the money economy. Two competencies were tested: using day-to-day non-cash payment modalities, and using non-cash remittance modalities. The competencies are shown in Table 8.

**Table 8: Competencies – Making and Receiving Payments**

Activity-Level Sub-Section	Competencies
Making and Receiving Payments	<ul style="list-style-type: none"><li>• Use accessible forms of non-cash money/payment, (cheque, card payment, bank transfer, mobile phone, internet)</li></ul>
	<ul style="list-style-type: none"><li>• Make/ receive non-cash remittance payments</li></ul>

#### Payments

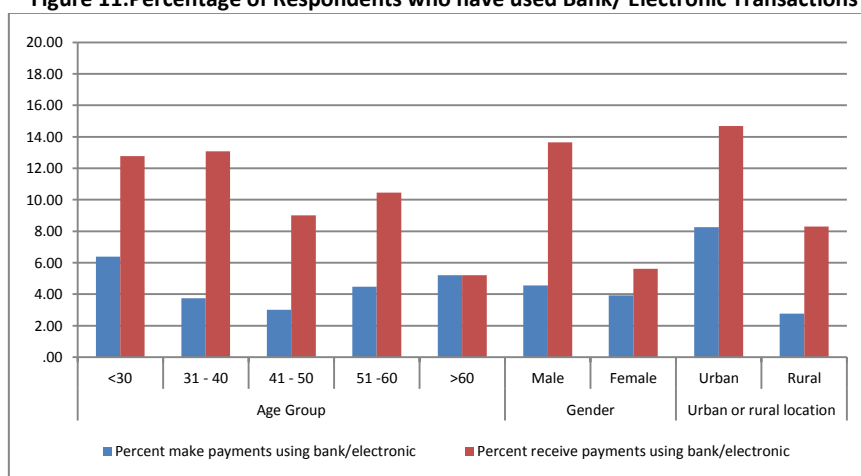
Respondents were asked to state expenses the household incurred and how the expense was usually paid. As shown in Table 9, cash was the dominant method of making payments across the common expenditure categories. Surprisingly, 87% of respondents who had a loan also stated they made loan repayments using cash. Whilst this includes formal and informal loans, 7% of respondents also stated they had hire purchase commitments. Of these, 97% stated they made hire purchase repayments in cash. The use of electronic transfer for payments appears to be very limited.

**Table 9: Expenses Incurred by the Household and Use of Cash Payment**

	% incur expense	% pay in cash
Day-day expenses	100%	100%
(Regular) Bills	98%	99%
Education expenses	93%	100%
Donations	76%	100%
Loan repayments	22%	87%
Levies/ taxes	16%	97%

As shown in Figure 10, the use of non-cash bank or electronic transactions by any of the groups in the survey is universally very low and does not appear to relate to access to the banking system or, importantly, ownership of a transaction account. Overall, only 10% of respondents stated they had received an electronic payment and 4.5% had made an electronic payment. The low level of usage of electronic transactions extends to respondents who reported receiving wage or salary income (a group which typically has higher levels of usage of electronic transactions). 88% of respondents who receive wage or salary incomes, reported the income was received in cash. Urban respondents reported higher levels of electronic transactions. Men reported higher levels of receipt of funds via electronic payments. This may relate to the higher level of receipt of remittances and more frequent receipts of wage or salary incomes.

**Figure 11: Percentage of Respondents who have used Bank/ Electronic Transactions**

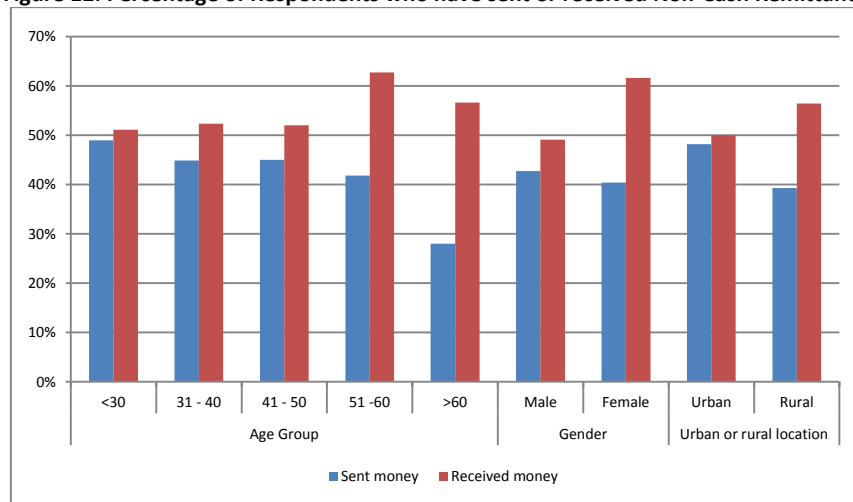


## Remittances

The level of receipt of remittances, both internal and external, is high in low income households in Samoa. 40% of respondents reported having sent a remittance and 54% having received a remittance. Overall, a significantly higher percentage of respondents stated they had sent or received an electronic (i.e. non-cash) remittance, than stated they had effected or received a non-cash transaction. As shown in Figure 11, receipt of remittances tends to increase with age. Conversely, sending remittances diminishes with age.

Receipt of remittances was higher amongst older respondents and by women. Rural respondents were slightly more likely to receive remittances and less likely to send remittances than urban respondents. Typically, 80% - 90% of respondents stated they either sent or received the funds themselves. Younger (<30 years) and older (>60 years) respondents were more likely to state someone received funds on their behalf.

**Figure 12: Percentage of Respondents who have sent or received Non-Cash Remittances**



As shown in Table 10, there is a significant difference between the methods used by respondents to send money, and those used to receive money. Approximately two-thirds of respondents stated they sent money using physical means (for example the mail, public transport, and relative). By contrast, approximately two-thirds of respondents stated they received funds by electronic means. The reason for the discrepancy is likely to be due to the high level of inward international remittances in Samoa, with offshore remittances being sent through the banking system, or wire transfer service and local remittances being sent using physical means. The reason for the very high

imbalance between sending and receiving funds via mail is likely to be due to the sample. The actual percentage of remittances received via the mail or person-to-person delivery is likely to be higher.

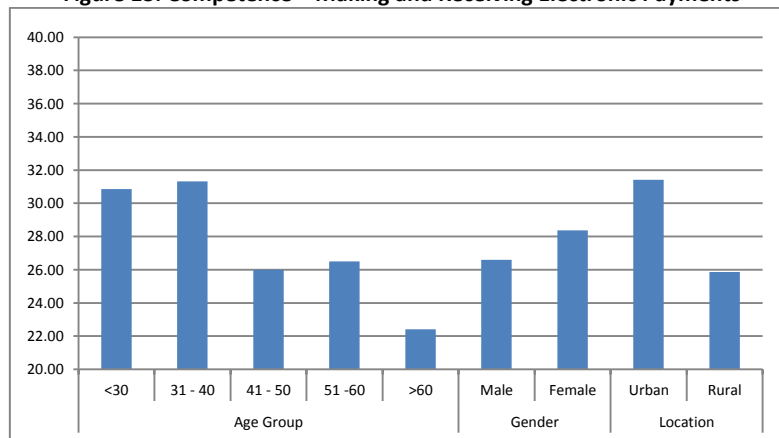
**Table 10: Remittance Method**

	How sent money	How received Money
Money transfer	26%	42%
Bank	10%	25%
Mail/ delivery	64%	3%

Competence with Managing Payments

Overall, as shown in Figure 12, respondents from low income households demonstrated low levels of competence at managing electronic (non-cash) transactions. Younger respondents demonstrated higher levels of competence with electronic transactions. There is little difference in the level of competence demonstrated by men and women. There is a more marked difference between urban and rural communities in the level of competence. This is likely to be a result of a higher level of cash transactions in rural communities.

**Figure 13: Competence – Making and Receiving Electronic Payments**



## b) Managing Income

The ability to manage multiple, and often irregular sources of income is a key competence. The competencies tested are shown in Table 11. Households which receive self-generated income (for example from farming or business activities) need to be able to separate the management of business cash-flows from household cash-flows. Households that receive wage or salary income need to be able to check pay-slips for accuracy. Households that receive group income (for example, from collectively-owned land, or fishing rights) need to be able to check both their entitlement to group income and the accuracy of payments received.

**Table 11: Competencies – Managing Household Income**

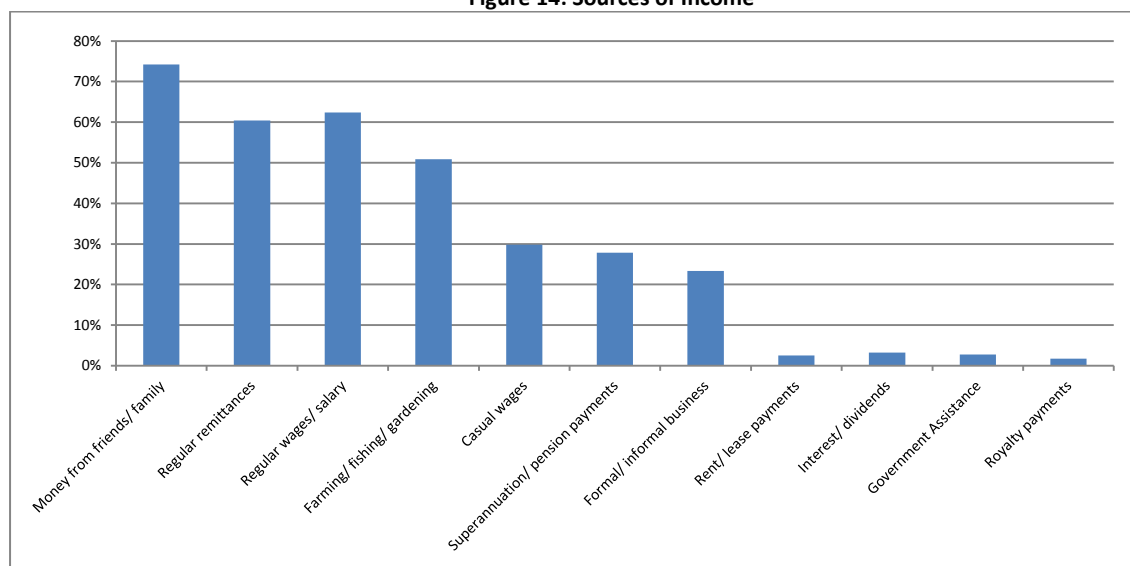
Activity-Level Sub-Section	Secondary Activity-Level Sub-Section	Competencies
Managing Household Income	Sources of income	<ul style="list-style-type: none"> <li>• Identify all sources of household income</li> <li>• Monitor all sources of income</li> <li>• Manage household income cycles</li> <li>• Manage irregular income patterns</li> </ul>
	Non-wage income generating activity	<ul style="list-style-type: none"> <li>• Separate management of household income from management of non-wage income generating activity (income and expenses)</li> </ul>
	Wage/ salary income	<ul style="list-style-type: none"> <li>• Check pay for accuracy</li> <li>• Check a formal pay-slip for accuracy</li> <li>• Check employer based deductions from wages/salary (tax, provident, savings, ACC)</li> </ul>
	“Rent” income (group based royalty/ lease/ church/ school income)	<ul style="list-style-type: none"> <li>• Check entitlement to “rent” income</li> <li>• Check “rent” income received for accuracy</li> </ul>

### Sources of Income

Most households reported receiving multiple sources of income. Typically, households reported receiving between two and three sources of income. There is a variance between all sources of income received by the household (both regular and intermittent) and the household’s sources of regular income. It appears a significant number of low income households in Samoa are reliant on passive income to augment income from productive activity. As shown in Figure 13, the most common source of income for low income households in Samoa appears to be passive income. This includes both money from family and friends (approximately 75% of households) and receipt of

regular remittances (approximately 60% of households). Approximately 30% of respondents reported receiving superannuation, another form of passive income.

**Figure 14: Sources of Income**



As shown in Table 12, there are significant variances in the pattern of receipt of income between urban and rural locations. Not surprisingly the urban community is more likely to earn regular wage/salary income, whereas the rural community is more likely to earn income from primary production. 55% of rural dwellers reported receipt of wage or salary income. This may be a function of households that, although classified as rural, are proximate to Apia. The pattern of receipt of passive income is similar between urban and rural communities.

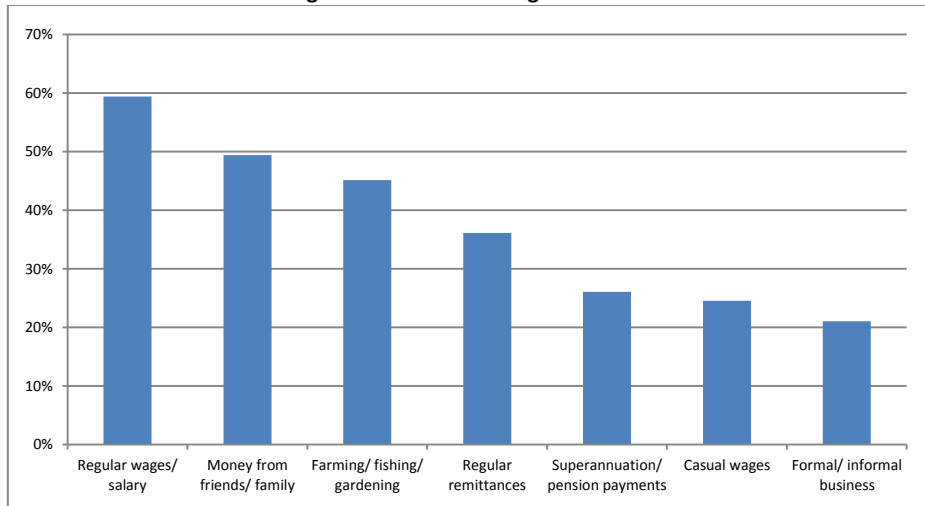
**Table 12: Receipt of income by Location**

	Regular wages/salary	Money from friends/family	Regular remittances	Superannuation/pension payments	Casual wages	Farming/fishing/gardening	Formal/informal business
Urban	82%	70%	69%	37%	36%	26%	24%
Rural	55%	74%	57%	23%	25%	59%	22%

Respondents were asked to state the forms of income household received regularly. The pattern of income is slightly different. As shown in Figure 14, the most common form of regular income was wage and salary income. However, nearly 50% of households also cited money from family and

friends, and 36% of households cited remittances as a regular source of income. 45% of households cited income from primary production as a regular source of income.

**Figure 15: Sources of Regular Income**



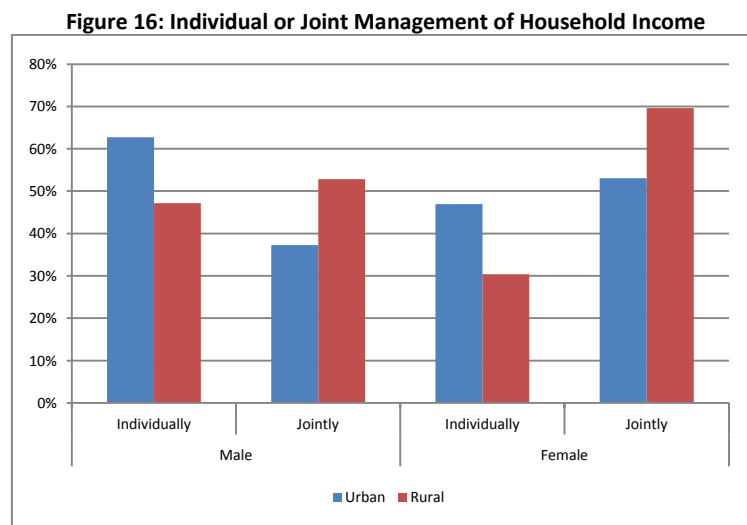
Linkages between sources of income and financial behaviour, appear to be weak. Typically, receipt of wage and salary income leads to higher levels of non-cash transactions due to receipt of income in a bank account. This does not appear to be the case with low income households in Samoa. Similarly, whilst two thirds of households receive inward remittances by non-cash channels, this does not appear to flow through to non-cash transaction activity. It may be possible to use high levels of passive income to influence current cash-based financial behaviour by encouraging recipients to keep funds in a bank account rather than withdrawing in cash. It is possible that recipients may be withdrawing funds because of limited access to bank branches and/or ATM/EFTPOS facilities.

There are gender differences in reported sources of income. Men were more likely to report receipt of remittance income than women (69% of men compared to 49% of women) and money from family or friends (76% of men compared to 68% of women). Men were also more likely to report superannuation or pension income (32% of men compared to 21% of women). Women were slightly more likely to report casual wage income (33% of women compared to 24% of men). There was no difference in the percentage of men and women reporting wage or salary income.



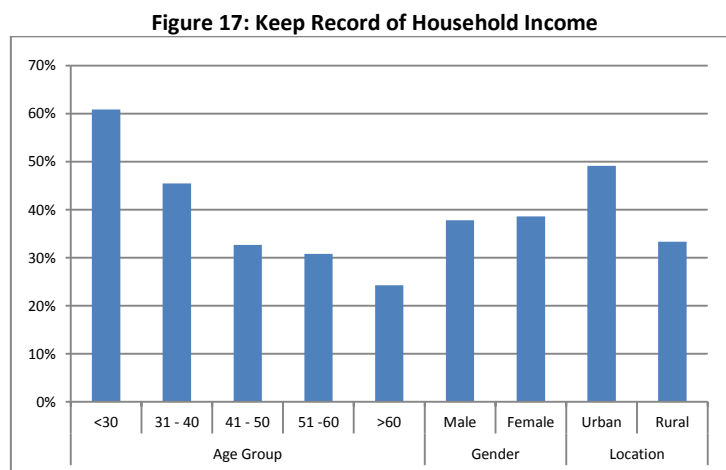
## Management of Household Income

The joint management of household income by adults in the household has been found to be an indicator of household financial competence. Respondents were asked whether household income was managed jointly or whether each member of the household managed their own income and contributed a portion of the income to household expenses. Women were more likely to state household income was managed jointly than men (65% of women compared to 49% of men). This difference is the inverse of that reported in other studies of low income households in the Pacific, in which, a greater percentage of men than women reported household income being managed jointly. Rural households were more likely to state income was managed jointly than urban households (60% of rural households compared to 44% of urban households). This difference is not a function of age or gender distributions, which are similar between urban and rural households. As shown in Figure 15; overall, men in urban communities were more likely to state household income being managed individually, whereas women in rural communities were more likely to state the same. The reasons for this difference are not known.



75% of respondents stated their household did not keep a record of income earned by the household. As shown in Figure 16, there were significant differences by age group; 60% of respondents <30 years stated they kept records of income received. By contrast, only 24% of respondents >60 years stated they kept records of income. Urban households were also significantly more likely to keep records of income than rural households (49% of urban households compared to

32% of rural households). This may relate to the greater incidence of wage/salary incomes in urban households and by younger respondents.



Respondents were no more likely to keep a record of personal income received than household income. Only 38% of respondents who reported earning personal income also stated they kept a written record of the income they had received.

Respondents were no more likely to state they kept a record of personal income, than they kept a record of household income. There was a difference in the likelihood that income received by the household was checked, depending on whether the income was personal income or household income. Approximately 65% of respondents stated they checked the household's income, however, this increased to 86% for personal income. This is consistent across studies in other Pacific island countries.

There does, however, appear to be a greater likelihood that respondents will check personal income for accuracy, than household income. 57% of respondents that reported their household received wage, salary or superannuation incomes also stated they checked the income for accuracy. By contrast, 82% of respondents that received wage, salary or superannuation incomes also stated they checked their own income for accuracy.

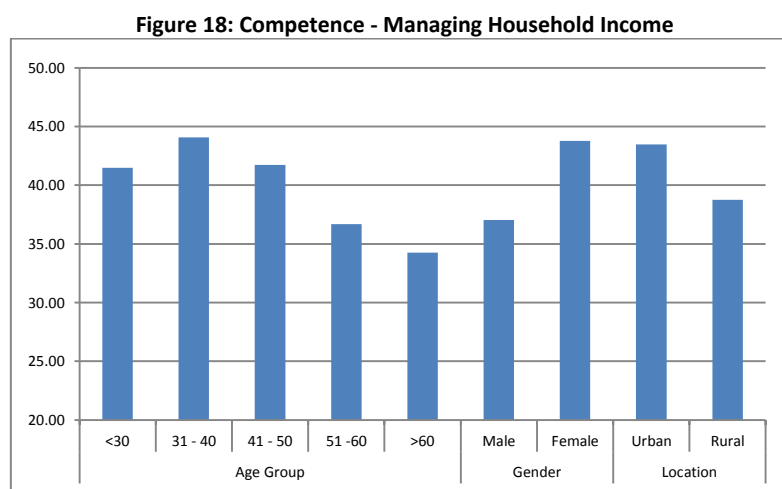
Most households generating income from primary production (farming, fishing or gardening) do not keep the management of the income from primary production separate from management of their

household or personal income/expenses. Only 38% of households reporting income from primary production also reported they kept the management of the income separate.

Approximately 62% of households that reported receipt of regular wage or salary incomes also reported receipt of a payslip when wages were paid. This reduced to 50% for respondents who reported receiving casual wage income. Most households checked at least some items on the salary slip, however few households checked all items on the slip.

### Competence with Managing Household Income

Overall, as shown in Figure 17, low income households do not demonstrate high levels of competence at managing household income. Women exhibit higher levels of competence than men, and urban households exhibit higher levels of competence than rural households. Levels of competence reduce with age.



### **c) Managing Expenses**

Managing household expenditure is particularly important in households that have limited regular income and must manage expenses within the context of multiple sources of income. As shown in Table 13, four competencies were tested: identifying household expenditure items, managing essential expenditure, managing regular expenditure and one-off expenditure, and managing requests for financial assistance by people who are not members of the household:

**Table 13: Competencies - Managing Household Expenditure**

Activity-Level Sub-Section	Secondary Activity-Level Sub-Section	Competencies
Managing Household Expenses	Expenditure identification	<ul style="list-style-type: none"> <li>• Identify all household expenditure items</li> </ul>
	Essential and non-essential spending	<ul style="list-style-type: none"> <li>• Identify and monitor the household's essential and non-essential expenditure</li> <li>• Prioritise essential household expenditure over non-essential household and individual expenditure</li> <li>• Ensure funds are available to meet essential household expenditure commitments</li> </ul>
	One-off and regular financial commitments	<ul style="list-style-type: none"> <li>• Identify and periodically monitor the household's one off household expenses and regular financial commitments</li> <li>• Manage household spending to ensure funds are available for each of the households expenditure cycles</li> </ul>
	Requests for financial assistance	<ul style="list-style-type: none"> <li>• Have strategies to manage requests for assistance from extended family/ clan groups</li> </ul>

### Responsibility for Management of Household Expenditure

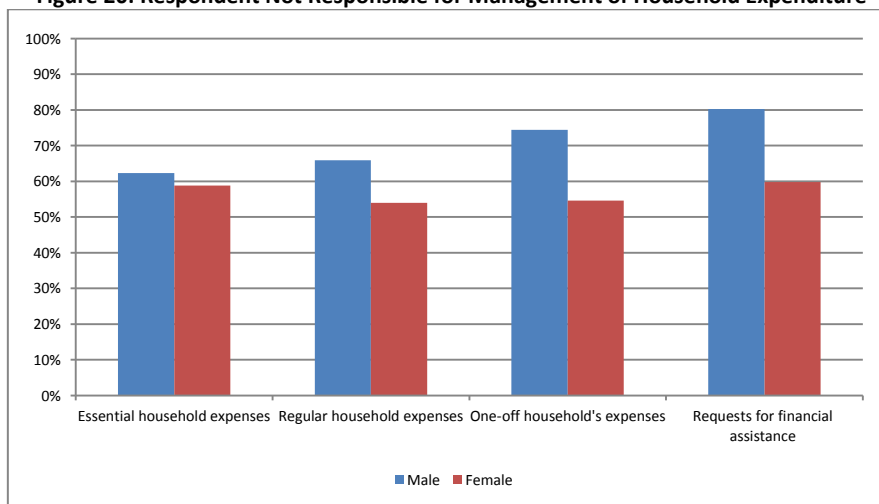
The majority of financial decision makers in low income households in Samoa appear to consider someone else in the household responsible for managing household expenditure. Whilst this pattern has been found in other aspects of financial competence, it is particularly striking in respect to management of the household's spending and may indicate a lack of role clarity or a lack of willingness to accept responsibility for management of household expenditure, by those who are responsible for the overall management of the household's cash flows. As shown in Figure 18, the most significant variance is age-related. Younger respondents appear to be significantly less likely to consider they are responsible for the management of household expenditure, either alone or jointly with someone else. Acceptance of responsibility increases progressively with age. This is likely to be a function of the hierarchical structure in Samoan households. Given the importance of expenditure management in low income households, this suggests appropriately targeted education may be required in order to support households in identifying who among them will be responsible for the management of the household's spending and ensuring those responsible have the required level of financial knowledge and skills.

**Figure 19: Responsibility for Management of Household Expenditure**



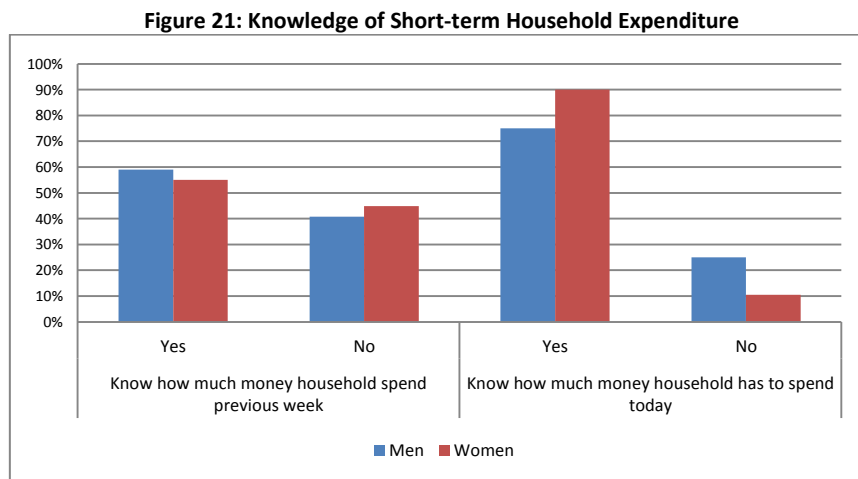
Male and female respondents appear to differ in their perception of who is responsible for different types of household expenditure. As shown in Figure 19, approximately 60% of men and women considered themselves responsible for the management of regular and one-off household expenditure. By contrast, as the expenditure horizon progressively shifts from immediate expenditure to less frequent expenditure, the percentage of men who stated they were not responsible for the management of expenditure, progressively increases to 80%, whereas the percentage of women remains relatively constant. This suggests men tend to be less likely to accept responsibility for the management of longer term household financial commitments, relative to women.

**Figure 20: Respondent Not Responsible for Management of Household Expenditure**



## Identifying Household Expenditure

Knowledge of short-term household expenditure was relatively consistent for both men and women. As shown in Figure 20, knowledge of how much money the household had spent the previous week, was surprisingly low. Between 55%-60% of respondents knew how much their household had spent. Knowledge of how much the household had spent that day was significantly higher, in particular among women. Between 75% and 90% of respondents stated they knew how much the household had spent that day. Knowledge of the household's daily spending does not appear to relate to the stated involvement of the respondent in the management of household spending, however the limited knowledge of prior spending may be a function of household financial decision makers, not considering they were responsible for the management of household spending.



## Managing Essential Expenditure

Most households appear to be competent at managing expenditure prioritisation. Only 28% of respondents stated they spent money on non-essential items before they spent money on essential items. However, 71% of households stated that, either always or most of the time, the household did not have enough money to buy essential household items. Urban households were more likely to spend money on non-essential items before essential items than rural households (38% of urban households, compared to 24% of rural households). Urban households were also less likely to experience a shortfall in cash available for essential household expenditure (65% of urban households compared to 74% of rural households). The ability to fund essential expenditure, even though the household was less likely to prioritise essential spending, may be due to the greater

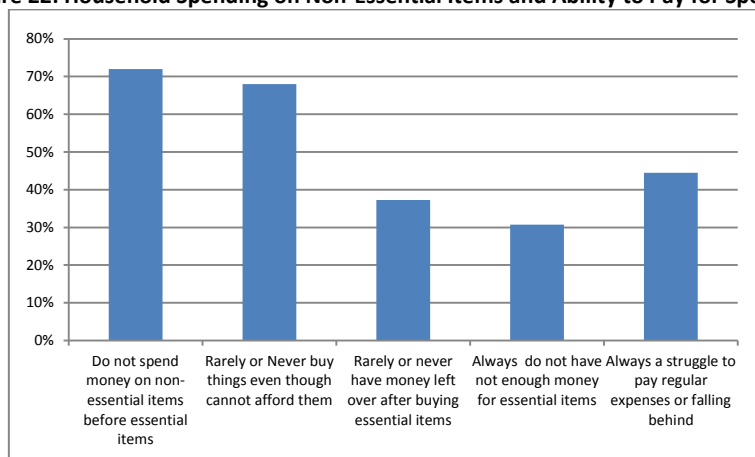
likelihood that urban households received regular wage or salary incomes, and are therefore able to generate higher levels of disposable income.

Approximately one third of respondents who stated they were responsible for the management of essential household spending, also stated they spent money on non-essential items before spending money on essential items or that they spent money on things even though they could not afford them at least some of the time. Overall though, respondents appear to be prudent in the management of essential household spending. 60% of respondents who were responsible for the management of household expenditure stated they rarely or never spent money on things they could not afford.

Younger respondents were no more likely than older respondents to state that they spent money on non-essential items before the spent money on essential items. Respondents in the 41-50 age group, were more likely to state that they spent money on non-essential items before they spent money on essential items, however this only applies to this age group and may be due to sampling.

As shown in Figure 21, most households appear to adopt prudent behaviours in respect to prioritising what the household can spend money on, and have low levels of impulse buying. Despite this, most households experience issues with respect to funds available for essential expenditure or payment of regular expenses. This suggests that the amount of money the household earns may be the principal constraint to competent management of household expenditure. Offsetting this, however, most households do not appear to keep records of household income or expenditure and many adults in low income households who are responsible for the management of household finances, do not appear to consider themselves responsible for the management of household expenditure. If households do not have enough money for essential expenditure, the most common strategy was to ask family or friends for money.

**Figure 22: Household Spending on Non-Essential Items and Ability to Pay for Spending**



### Managing Regular and One-off Expenditure

As discussed earlier, whilst there appear to be low levels of management of household expenditure by low income households, and women appear more likely to be responsible for the management of non-essential expenditure, the behaviours adopted by men and women who are responsible for regular and one-off household expenditure appear to be similar. Nearly all men and women who stated they were responsible for the management of household expenditure, also stated they checked bills were correct before payment. Men were, however, more likely to state that they tried to keep money aside for unexpected expenses (58% of men compared to 43% of women). However this difference may be due to the sample size.

### Managing Requests for Financial Assistance

Despite focus groups identifying as an importance competence, the need for low income households to manage requests for financial assistance from non-members, very few households appear to actually plan for such requests. Most respondents (70%) stated they were not involved in the management of such requests. Of those respondents who were involved in the management of requests for financial assistance, 92% stated the household did not have a plan to manage requests. Given the frequency with which households provide financial assistance to households in the immediate and extended family (this being the most common form of income for low income households in Samoa), this situation is of concern, particularly given increasing levels of wage and

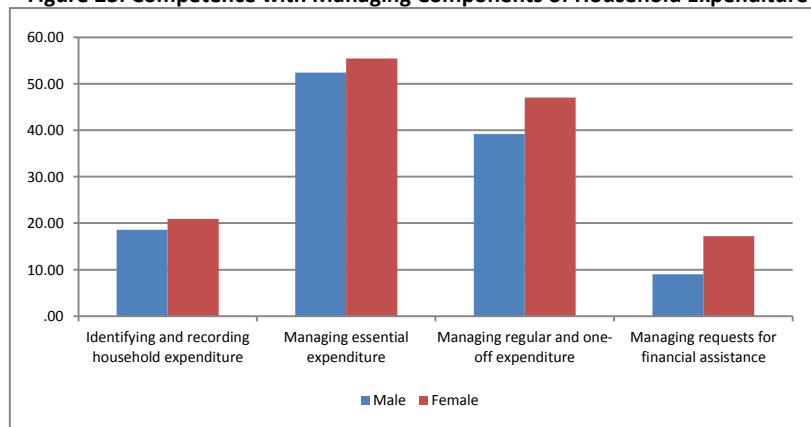


salary incomes and the inability of most households to be able to manage essential and regular expenditure effectively. Education may be required to assist low income households in determining who should be responsible for the management of requests for financial assistance and to develop a plan to be able to manage financial requests, whilst still ensuring the household expenditure can be met from household income.

### Competence with Managing Household Expenditure

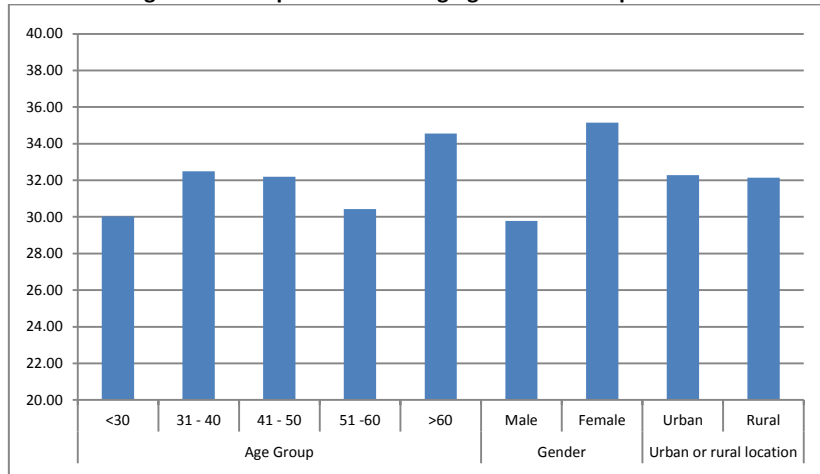
Overall, many low income households in Samoa demonstrate low levels of financial competence at managing household expenditure. As shown in Figure 22 and discussed above, competence reduces as the expenditure horizon shifts from immediate expenditure to less frequent expenditure. Households also demonstrate low levels of competence with identifying and recording household expenditure. Overall, it appears low income households in Samoa focus on immediate expenditure and do not record household expenditure. There is little difference in competence levels between urban and rural households. Women appear, however, to be more competent at managing less frequent household expenditure.

**Figure 23: Competence with Managing Components of Household Expenditure**



Low income households in Samoa appear to be less competent at managing household expenditure than they are at managing household income. As shown in Figure 23, age, gender and location-related differences in competence are minimal.

**Figure 24: Competence – Managing Household Expenditure**



### d) Keeping Records of Income and Expenses

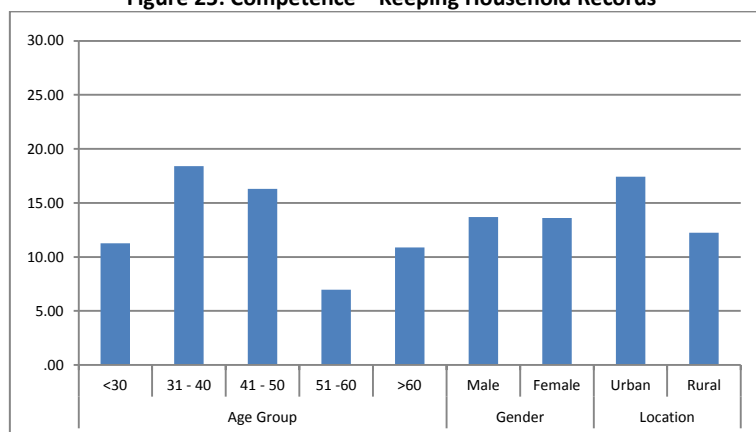
Keeping financial documents and a record of cash-flows are basic financial competencies. Three competencies were tested: Keeping financial documents, keeping a record of household cash-flows, and checking financial documents for accuracy. The competencies are shown in Table 14.

**Table 14: Keeping Household Financial Records**

Activity-Level Sub-Section	Competencies
Keeping Household Records	<ul style="list-style-type: none"> <li>• Keep copies of key household financial documents</li> <li>• Check household financial documents for accuracy</li> <li>• Keep a record of household cash-flows</li> </ul>

As shown in Figure 24, competence with managing household records is very low. Only 25% of respondents stated they were involved in managing household financial records. Of these respondents, only 30% stated they kept copies of household financial documents. Respondents who stated they did keep copies of household financial documents also stated they checked bills were correct prior to payment. To put this in a wider household context, only 25% of women and 10% of men who knew how much the household had spent the previous week, also stated they kept expenditure receipts or a written record of expenditure. It is reasonable to conclude most low income households in Samoa have a limited knowledge of the pattern of household expenditure or how much the household has spent over time. This suggests most households have a limited ability to plan financial expenditure and are likely to have a limited ability to withstand financial shocks.

**Figure 25: Competence – Keeping Household Records**



### e) Overall Competence at Managing Money

The set of competencies within the domain ‘Managing Money’, were submitted to factor analysis to determine an overall financial competence score for the domain. The competencies included in the factor analysis are shown in Table 15:

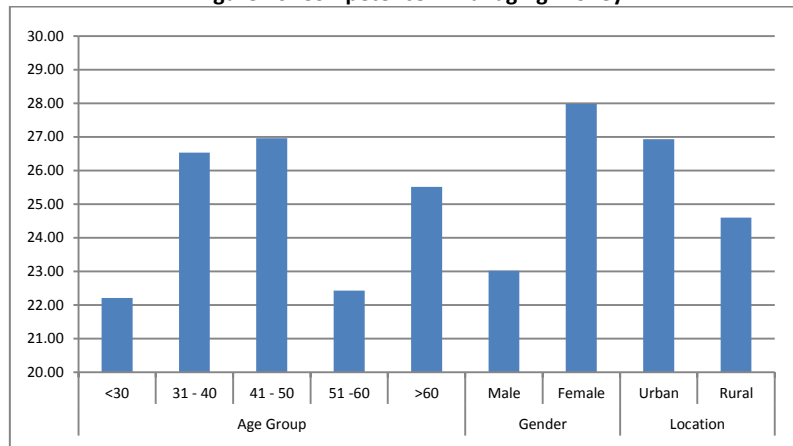
**Table 15: Competencies Included in Managing Money Factor Analysis**

Competence with non-cash transactions
Competence with managing household income
Competence with identifying and recording household expenditure
Competence with managing essential expenditure
Competence with managing regular and one-off expenditure
Competence with managing requests for financial assistance
Competence with keeping household records

As shown in Figure 25, the overall financial competence of low income households in Samoa at managing money is low. The principal differences in financial competence are age and gender-related. Younger respondents and older respondents exhibit slightly lower levels of financial competence. Women exhibit slightly higher levels of financial competence. This level of competence suggests both education and behaviour changes will be required in order for households to become more competent. Of particular importance is the requirement for households to determine who is responsible for the management of household income, expenditure and records. In addition, the continuing high level of cash transactions in an environment in which it is possible to effect electronic transactions, in particular remittances, is of concern due to the known issues with

household cash flow management, when households must keep money in cash rather than keeping funds secure in a bank account.

**Figure 26: Competence – Managing Money**



Regression analysis was undertaken to determine factors that indicate higher levels of financial competence at managing money. The variables included in the model are shown in Table 32 (refer Appendix). Overall, the model had very low explanatory power and explained only 6% of the variance in the managing money competence score (Refer to Appendix: Table 33). Only two variables were significant: Gender (women) and the household having a budget. The limited explanatory power of the model suggests there is likely to be a significant variance in the elements of financial competence within the sample - and therefore generally within low income households in Samoa.

#### 4.4. Domain 2: Making Financial Choices

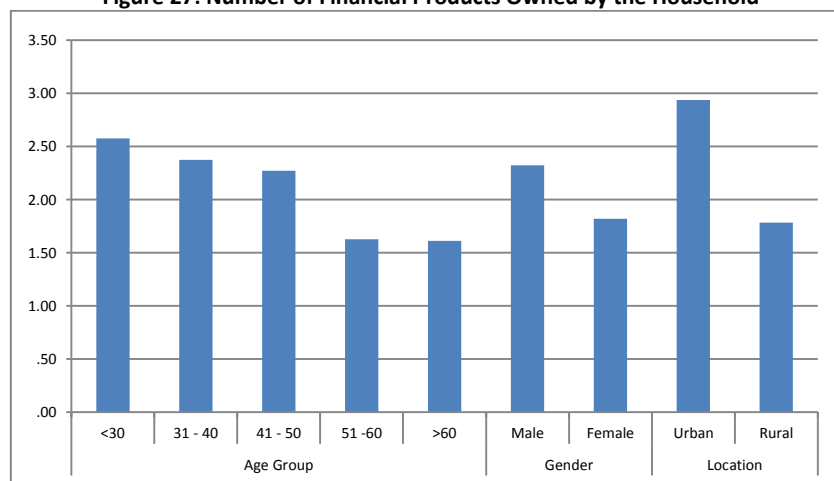
The domain 'Making Financial Choices' encompasses the set of financial products, both formal (in particular banks) and informal, used by the household and members of the household. The products have been grouped into short-term cash flow management, longer-term asset accumulation and credit products:

- Savings
- Long-term savings
- Borrowing

##### a) Usage of Financial Products

Low income households in Samoa can potentially access the range of financial services available to Samoan households. These include transaction services, formal and informal savings facilities and formal and informal credit facilities. Constraints to access are typically: proximity to the financial services provider; and the household's ability to pay fee and interest expenses. As shown in Figure 26, on average households own 2.0 financial products per household (both formal and informal). The number of financial products owned is lower for older respondents. Respondents 50 years and over reported an average of 1.6 products per households. On average, men own more financial products than women. The most significant difference is between rural and urban households (1.78 for rural respondents compared to 2.94 for urban households). This may be due to significantly higher levels of provident/superannuation contribution by urban households.

Figure 27: Number of Financial Products Owned by the Household



A breakdown of financial product usage across product groups by age, gender location is shown in Table 16.

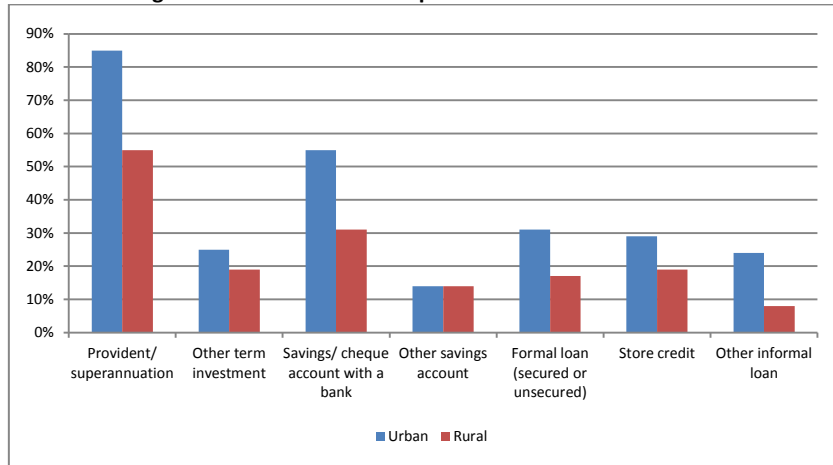
The most common product owned by low income households is provident/superannuation (63% of households). This high level of reported ownership may, in part, be due to respondents confusing the Senior Citizens Benefit Scheme, and possibly the New Zealand National Superannuation Scheme (for residents who are also New Zealand citizens), or the United States Social Security Program (for residents who are also US citizens), with contributions to the National Provident Fund, or a private superannuation scheme. Urban households are significantly more likely to have superannuation/provident investments (85% urban, 55% rural). This is likely to be a consequence of higher levels of wage/salary employment. Ownership of a bank account ranges between 31% in rural households to 55% in urban households. Levels of formal and informal borrowing are also relatively high.

**Table 16: Financial Product Ownership**

		Provident/ superannuation	Other term investment	Savings/ cheque account with a bank	Other savings account	Formal loan (secured or unsecured)	Hire purchase	Store credit	Other informal loan	Insurance
Age Group	<30	70%	23%	45%	19%	26%	0%	26%	26%	4%
	31 - 40	70%	27%	36%	21%	26%	1%	18%	7%	4%
	41 - 50	71%	19%	38%	13%	24%	2%	26%	21%	0%
	51 -60	48%	13%	30%	9%	18%	1%	25%	7%	1%
	>60	55%	19%	40%	6%	8%	0%	18%	6%	1%
Gender	Male	67%	24%	38%	15%	22%	1%	28%	14%	3%
	Female	60%	17%	37%	12%	19%	1%	15%	11%	1%
Location	Urban	85%	25%	55%	14%	31%	1%	29%	24%	5%
	Rural	55%	19%	31%	14%	17%	1%	19%	8%	1%

Whilst older respondents are significantly less likely to have provident/superannuation than younger residents, as shown in Figure 27, the principal differences with respect to ownership of financial products are between urban and rural households. Product ownership reduces sharply the further the respondent is from Apia, the principal urban area. This is consistent across product groups and may reflect reduced involvement with the money economy in rural areas, as a consequence of lower levels of wage and salary employment as well as the concentration of financial services in the urban area.

**Figure 28: Product Ownership Urban and Rural Households**



## b) Savings

Managing surplus household cash flow by saving money in either a formal or an informal savings account is a core financial competence. Two groups of competencies were tested: keeping money safe, whether or not the funds are kept in a savings account, and forms of saving account used by the household and the decision process in respect to selecting the savings account. The competencies are shown in Table 17.

**Table 17: Competencies – Saving**

Activity-Level Sub-Section	Secondary Activity-level Sub-Section	Competencies
Saving	Keep money safe	<ul style="list-style-type: none"> <li>Keep money in a safe place</li> </ul>
	Forms of saving	<ul style="list-style-type: none"> <li>Keep savings in a (bank) account</li> <li>Compare savings options before committing to a financial product or service</li> <li>Select an appropriate savings option and save to provide for planned and unplanned future expenditure</li> </ul>

As shown in Table 18, low income households typically use multiple methods of keeping money safe. The most common method (70% - 87% of households) is to keep the money in cash in a locked box, hidden or given to someone else to look after. Approximately 35% of households also keep money safe in a bank account. Usage of a bank account for safe custody is higher among urban households than rural households (45% urban compared to 27% rural). Use of a savings account is also higher among women than men (38% of women compared to 24% of men).

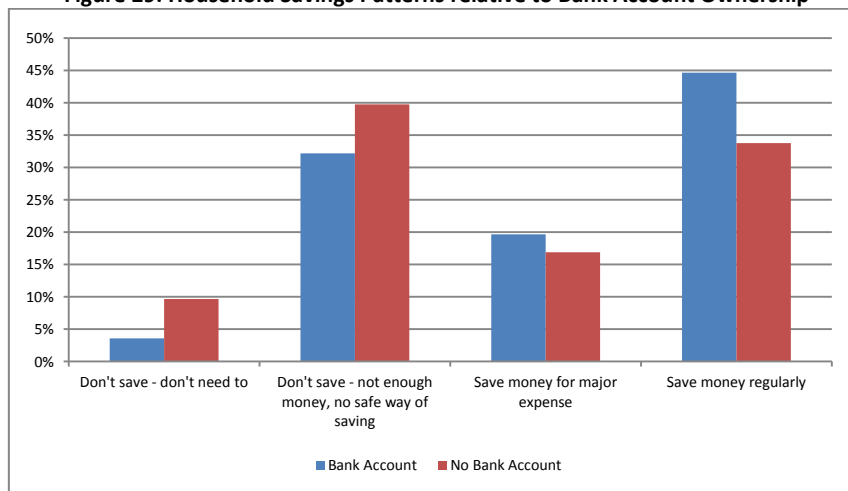
**Table 18: How Household Cash is Kept Safe**

		Not kept safe	Locked box, hidden, given to someone to look after	Savings Club	Bank/ Microfinance / Credit Union
Age Group	<30	0%	70%	2%	38%
	31 - 40	0%	77%	6%	35%
	41 - 50	3%	79%	9%	27%
	51 -60	1%	87%	3%	27%
	>60	1%	77%	5%	34%
Gender	Male	2%	75%	3%	26%
	Female	1%	81%	9%	38%
Location	Urban	3%	69%	8%	45%
	Rural	1%	82%	4%	27%

Overall, 40% of respondents stated they were responsible either solely or jointly for the management of household savings activity. The pattern was consistent across men and women, and is consistent with the pattern across other aspects of financial competence.

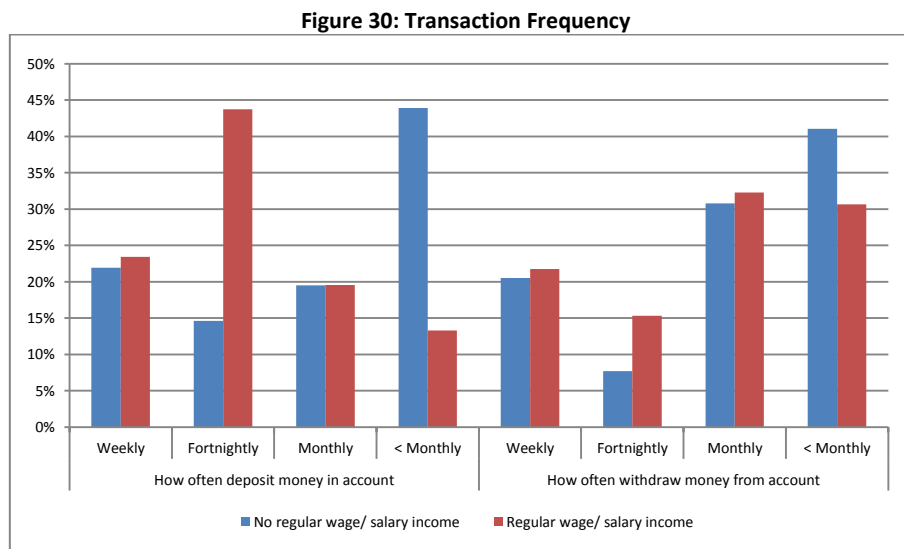
Ownership of a bank account appears to facilitate household savings activity. As shown in Figure 28, households that have a bank account are more likely to report the household saved money regularly or for a major expense. There appears to be a widespread acceptance of the need to save. Few respondents (5% - 10%) reported they did not save because they did not need to save. Households with a bank account are also more likely to try to keep money aside for emergencies. 65% of households with a bank account tried to keep money aside, compared to 45% of households without a bank account.

**Figure 29: Household Savings Patterns relative to Bank Account Ownership**



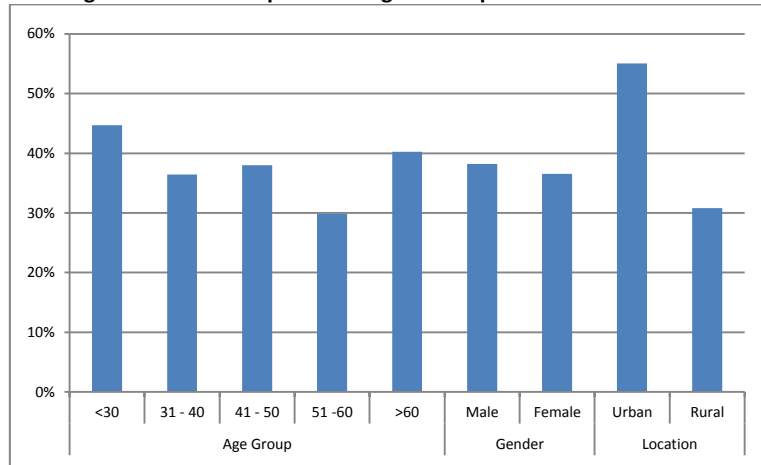


The pattern of bank account transactions is influenced by whether the household receives regular wage or salary incomes. As shown in Figure 29, 44% of households which owned a bank account and which also reported receipt of regular wage or salary incomes, stated they deposited money into the account fortnightly. This is likely to coincide with the payment of wages or salaries. In contrast, 44% of households which owned a bank account and which did not report receipt of regular wage or salary incomes, reported depositing money into the account monthly. The pattern of withdrawals was similar across households.



As shown in Figure 30, age and gender do not appear to be significant factors influencing bank account ownership. Location is, however, a significant factor. Urban households are nearly 80% more likely to own a bank account than rural households. To some extent, this will be influenced by differing income patterns between urban and rural households. Proximity to a bank branch is also likely to be a factor. Given that ownership of a bank account positively influences household savings behaviour, increasing the level of bank account ownership is likely to result in increased savings activity, particularly by rural households which have a low level of bank account ownership.

**Figure 31: Ownership of a Savings or Cheque Account with a Bank**



Logistic regression was conducted to determine factors which predict ownership of a savings account. Overall, the model explained between 15% - 20% in the variance of ownership of a savings account. Four variables predicted ownership of a bank account (refer Appendix, Table 34): living in an urban community, earning wage/salary, earning a business income and the household having a budget. Households earning wage or salary incomes, or business incomes, are between 2.3 and 2.8 times more likely to own a bank account than other households. Households which have a budget are twice as likely to own a bank account.

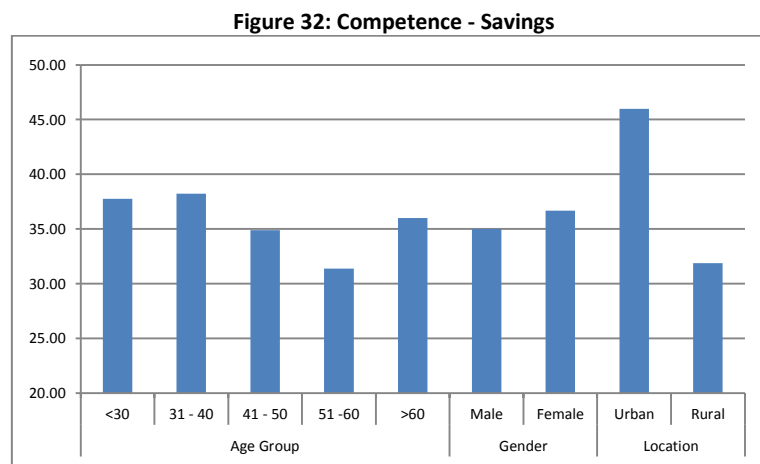
As shown in Table 19, women appear to be more likely to open a savings account for their personal use than men. They also appear to be more likely to consider several alternatives and to check terms and conditions than men. 52% of respondents who stated their household had a savings or cheque account with a bank, also stated they knew the balance of the account.

**Table 19: Ownership of a Savings Account**

	Men	Women
Personal use	16%	30%
Household use	67%	46%
Personal and household use	11%	6%
Considered several savings alternatives before deciding product	18%	38%
Checked terms and conditions before committing to product	22%	38%

Overall, low income households do not appear to be very competent at managing a bank account. 70% of respondents with a savings account also stated they did not compare savings product alternatives prior to purchasing the account. 60% of respondents stated they did not check the terms and conditions of the product prior to purchasing. 37% of respondents stated they did not know the balance of their savings account.

As shown in Figure 31, competence with the management of household savings reduces with age. There is no significant gender difference in competence. The principal differentiator is location. Urban households are not only more likely to own a bank account, but are also more likely to adopt positive financial behaviours related to saving.



### c) Investing

Accumulating assets over the longer-term requires a different set of competencies to those required for managing shorter term savings. This is particularly important in respect to accumulating assets, whether financial or social, to provide for old age. In rural subsistence communities, socially provided support is a common form of providing for old age, in particular provision of support by children and other family members. As monetisation and urbanisation increases, having strategies in place to be able to meet household expenses when the principal income earners are no longer working, becomes an increasingly important financial competence. In Samoa, urbanisation is increasing and with this, the incidence of wage/salary incomes as the principal form of household income is also becoming more prevalent. Two competencies were tested; these are shown in Table 20.

**Table 20: Competencies – Investing**

Activity Level Sub-Section	Competencies
Investing	<ul style="list-style-type: none"> <li>Accumulate assets over the longer term (monetised and non-monetised, asset-based and social)</li> <li>Compare asset accumulation options before committing to a financial product or service</li> </ul>

As shown in Table 21, a significant percentage of respondents report some form of longer term savings. There was a significant correlation ( $r=.317, p<.001$ ) between respondents who reported both *current* receipt of regular wage/salary income and superannuation/provident fund investment. Given provident fund investment may also be a function of prior employment; the longitudinal correlation is likely to be higher. It is also possible that, due to dual citizenship and superannuation portability arrangements between New Zealand and Samoa, some respondents have included New Zealand National Superannuation when considering provident or superannuation investment.

**Table 21: Ownership of Long-term Savings Products**

		Provident/ superannuation	Term deposit	Life insurance	Unit trust/ shares
Age Group	<30	70%	19%	4%	4%
	31 - 40	70%	16%	14%	4%
	41 - 50	71%	12%	10%	2%
	51 -60	48%	4%	10%	4%
	>60	55%	13%	5%	4%
Gender	Male	67%	16%	9%	3%
	Female	60%	8%	10%	4%
Location	Urban	85%	15%	11%	4%
	Rural	55%	12%	9%	3%

Most respondents (80%) reported they did not check the terms and conditions of their long-term savings product(s) before purchasing the product. Whilst this is congruent with respondents' overall levels of financial competence, it is also likely to be a function of employment-based provident fund contribution.

Responses to the question 'Are you/ your spouse still working to earn money' indicate some respondents may have interpreted the question to mean 'are you currently employed [for wages or salary]'. Only answers for respondents <50 years who stated they were currently working, and >=50

years who stated they were no longer working were analysed. The responses indicate that, overwhelmingly, the most common form of current or expected retirement provision is support from children or family. Multiple forms of retirement income appear to be common. A significant number of respondents  $\geq 50$  who are no longer working declined or could not answer the question.

As shown in Table 22, respondents indicated they used a range of asset accumulation strategies to prepare for old age or retirement, or if they were no longer working, to fund the retirement. As discussed above, the dominant form of retirement provision was support from children or other family members. Virtually all respondents were either reliant on family support (if no longer working) or expected to receive family support when they were no longer working. This is perhaps of some concern as, whilst a traditional form of preparing for retirement, social support may be becoming more difficult to rely on in situations in which children may no longer be resident in the same community or, as is common in Samoa, no longer resident in the same country.

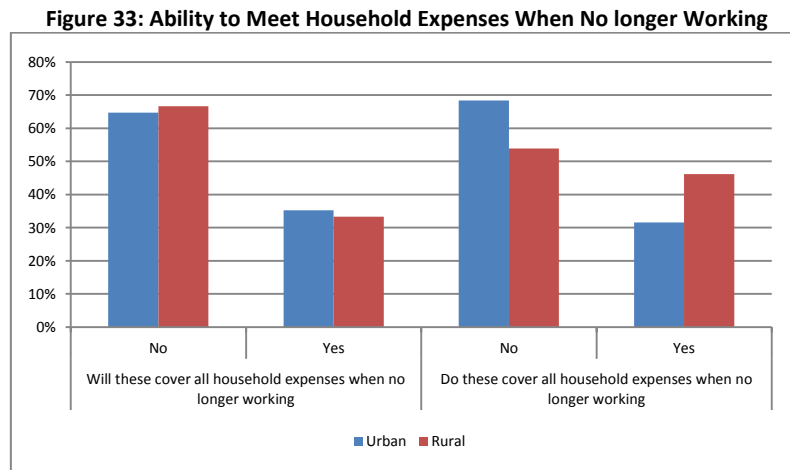
**Table 22: Funding Retirement**

	How will live when no longer working	How live now no longer working
Family/ Children will support	99%	98%
Receive a pension/ government assistance	38%	34%
Receive income from farm/ fishing/ business operated by others/ rental income	24%	15%
Return to village	11%	10%
Receive lump sum from superannuation/ provident	8%	0%
Receive support from community organisation	8%	2%
Have not planned, did not understand the question, were unable to answer the question	14%	29%

Respondents appear to be aware that their provisions for retirement are likely to be inadequate. Approximately 60% of respondents in households who were currently working, did not consider the forms of retirement provisions available to the household are adequate to meet all household expenses when they were no longer working. There was a difference between urban and rural respondents who were no longer working.

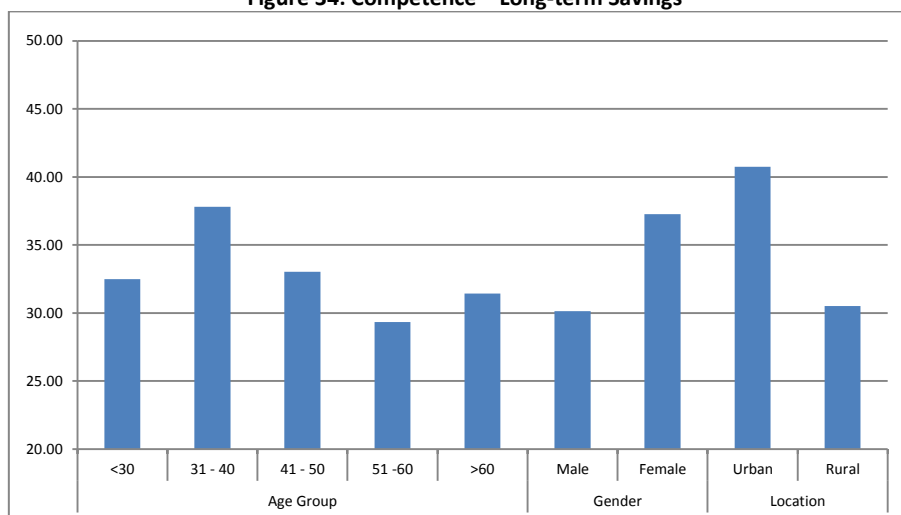
In addition, most respondents who were no longer working stated the forms of income available to them were inadequate to meet all household expenses. As shown in Figure 32, 68% of urban respondents stated their sources of income were not adequate to cover their household expenses,

compared to 54% of rural respondents. This may be due to higher levels of social support received by rural households, and these households having a greater ability to provide for basic food requirements.



Overall levels of competence with managing longer term savings are low (refer Figure 33). As reliance on financial rather than social provision for retirement increases, the need for financial competence in the management of longer-term savings will also increase. Competence with provisioning for retirement appears to be significantly influenced by whether the household receives regular wage or salary incomes and largely explains why urban households and younger respondents demonstrate higher levels of financial competence with long-term savings, than rural households. Women also demonstrate higher levels of financial competence than men, consistent with other aspects of financial competence.

**Figure 34: Competence – Long-term Savings**



### d) Borrowing

The ability to use credit, both formal and informal, to smooth cash-flows and to assist in the purchase of assets, is central to the contemporary money economy. As shown in Table 23, two groups of competencies were tested: Households’ use of different forms of credit to facilitate household financial management, and the household’s management of current credit obligations.

**Table 23: Competencies –Borrowing**

Activity-Level Sub-Section	Secondary Activity-Level Sub-Section	Competencies
Borrowing	Forms of credit	<ul style="list-style-type: none"> <li>• Compare credit options and select appropriate forms of credit before committing to a financial product or service</li> <li>• Use short-term credit effectively to assist in the management of household cash flows and medium-long term credit to assist in the accumulation of household assets/ sustainable cash-flows</li> <li>• Determine the eligibility criteria and terms and conditions for a selected form of formal credit</li> </ul>
	Managing credit	<ul style="list-style-type: none"> <li>• Repay borrowing in accordance with terms and conditions</li> <li>• Only provide collateral security if the potential consequences have been explained and are acceptable</li> </ul>

## Forms of Credit

The use of credit does not appear to be common in low income rural households in Samoa. As shown in Table 24, use of credit by urban households is significantly higher across all forms of credit than the use of credit by rural households.

**Table 24: Household Use of Credit by Location**

	Rural	Urban
Formal Loan	17%	31%
Store Credit	19%	29%
Other Informal Loan	8%	24%

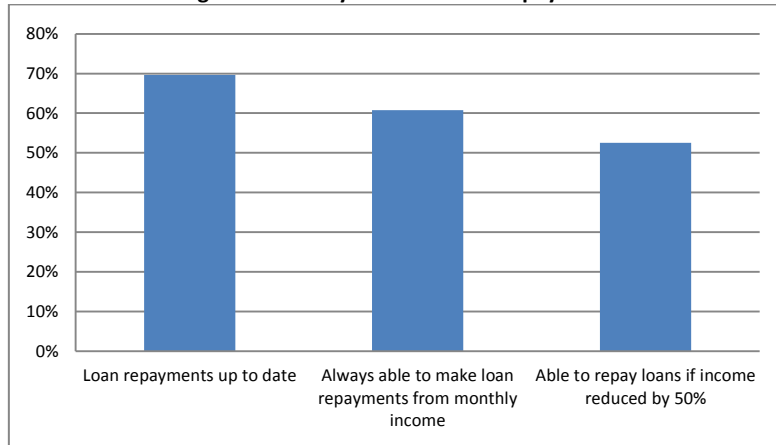
## Management of Credit

Between 45% - 50% of respondents stated they were, either individually or jointly, responsible for the management of their household's borrowing. Household borrowing is typically short-term - to cover cash flow shortages. Between 65%-80% of respondents who stated their household had borrowed money, also stated the household borrowed to buy essential items at least once every fortnight, typically by using store credit. All respondents who stated their household accessed store credit, also stated the household was able to repay store credit obligations as required.

Whilst the frequency of borrowing by low income households in Samoa is low, households that borrow appear to do so because of cash flow problems and may experience issues managing their borrowing. As shown in Figure 34, 70% of households that had borrowed stated the households borrowings were up to date. However, approximately one third of respondents who stated their household had borrowed money, also stated the household borrowed money to repay existing debts at least once every two–three months. 40% of households stated they were not always able to make loan repayments from their 'normal' monthly income and nearly half of households stated they would not be able to repay household borrowing if household income was reduced by 50%.



**Figure 35: Ability to Make Loan Repayments**

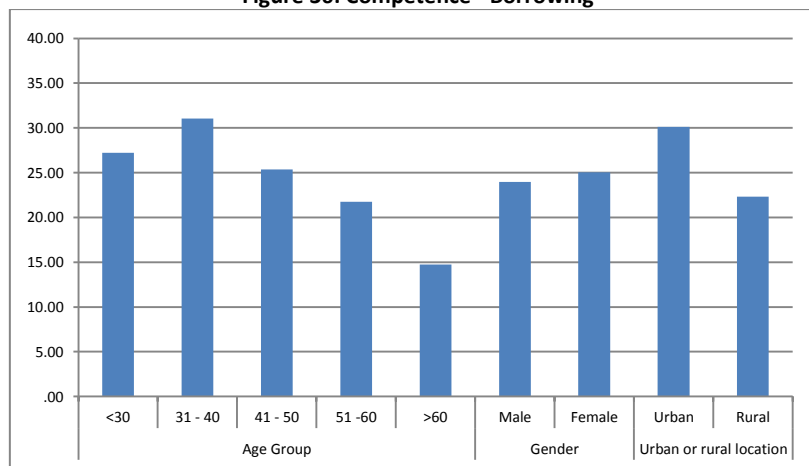


Knowledge of borrowing was also low. 58% of respondents stated they did not know how much their household had borrowed and repaid over the past 12 months (46% stated they knew from memory). Very few (<5%) households reported having pledged an item at a pawnshop, having acted as a guarantor or having a commercial loan.

Women are more likely to accept responsibility for management of the household’s borrowings than men. 48% of women stated they were responsible for the management of the household’s borrowing, either individually or jointly, compared to 35% of men.

Overall, competence with the management of borrowing is low. As shown in Figure 35, competence reduces significantly with age. Men exhibit similar levels of financial competence to women. Urban households demonstrate slightly higher levels of financial competence than rural ones.

**Figure 36: Competence - Borrowing**



## e) Cost of Money and Financial Terms and Conditions

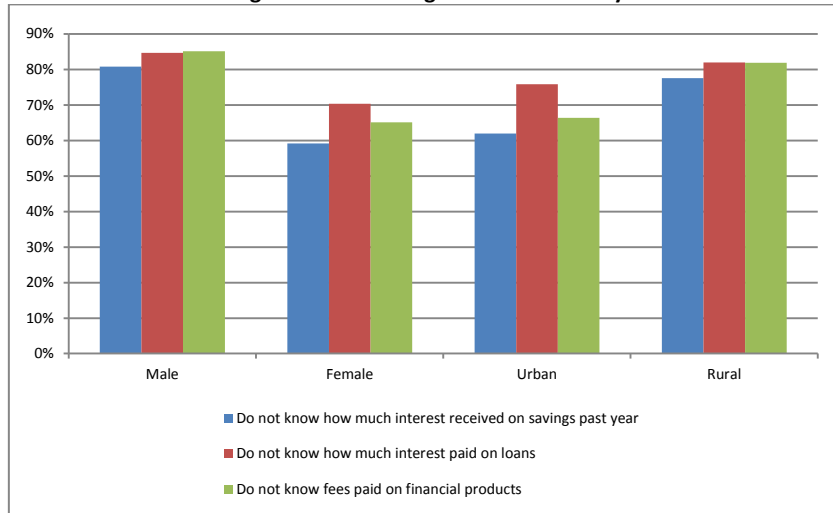
Understanding the cost of money (both interest on credit and fees), financial terms and conditions associated with financial products and the risks associated with the use of financial organisations, are important competencies consequent on using financial services, whether for transacting, saving or borrowing. Two groups of competencies were tested: Respondents' understanding of financing costs, and their understanding of the risks relating to the use of financial organisations. The competencies are shown in Table 25.

**Table 25: Cost of Money and Financial Terms and Conditions**

Activity-Level Sub-Section	Secondary Activity-Level Sub-Section	Competencies
Cost of Money and Financial Terms and Conditions	Financing costs	<ul style="list-style-type: none"> <li>• Monitor the interest rate received/ paid on household deposits/ loans</li> <li>• Determine net interest received on deposits, the total cost of borrowing on loans and the fees charged on financial products used by the household</li> <li>• Ensure household financial commitments allow for adverse changes in interest rate</li> </ul>
	Financial services providers	<ul style="list-style-type: none"> <li>• Determine the relative risk of available financial services providers</li> <li>• Select a financial service provider based on risk and suitability</li> <li>• Complain to, or seek redress from, a financial services provider</li> </ul>

As shown in Figure 36, knowledge of the cost of money, whether interest received or interest paid, or a fee paid on financial products, is very low. In general terms, those responsible for the financial management of low income households do not know the financing costs these households may be incurring. Actual knowledge of financing costs is likely to be lower than reported. 30% of respondents who stated they knew how much interest the household had paid or earned, or fees paid on financial products, stated they knew because of retained financial statements. However, another 30% stated they knew because they memorised the interest or fees. The lack of knowledge of bank interest and fees is of particular concern given the high level of remittances and the relatively high level of use of provident/ superannuation and savings accounts.

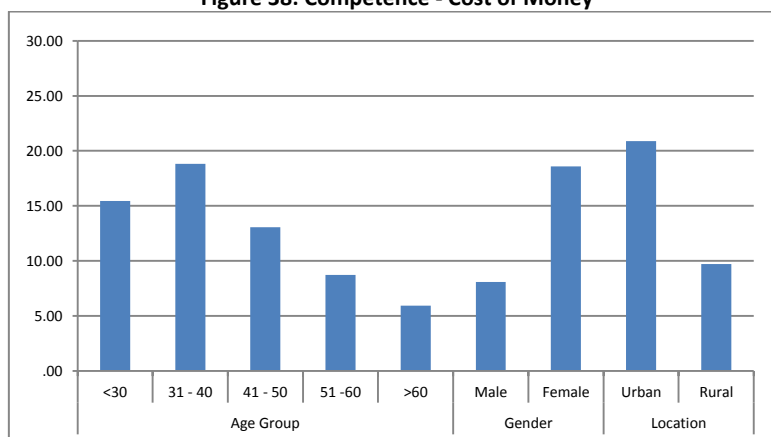
**Figure 37: Knowledge of Cost of Money**



The reasons provided by respondents as to why they selected the financial organisation they use for financial services are typical of reasons stated in a wide range of studies in other countries, in particular, accessibility and prior knowledge of the organisation.

Overall competence with managing the cost of money and financial terms and conditions is very low and is of considerable concern in an environment of increasing engagement with the formal financial system. As shown in Figure 37, a similar pattern of financial competence in respect to managing the cost of money is evident to that of other financial competencies. Competence reduces with age, women demonstrate higher levels of competence than men and urban households demonstrate higher levels of competence than rural households.

**Figure 38: Competence - Cost of Money**



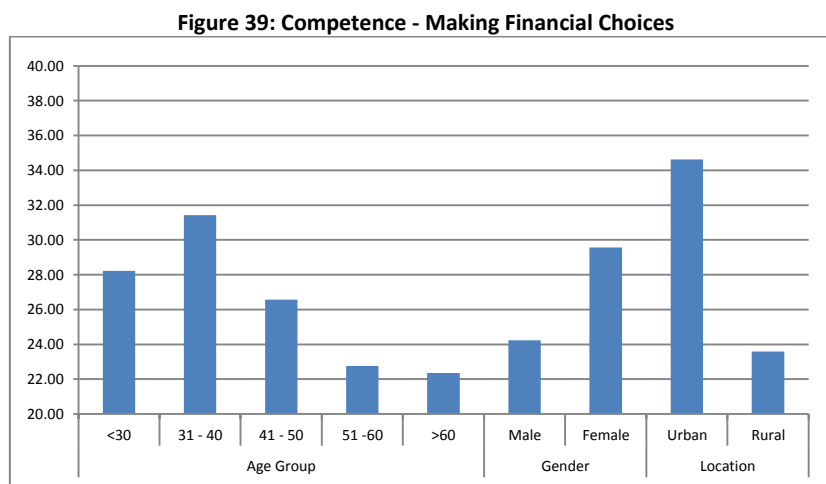
## f) Overall Competence at Making Financial Choices

The set of competencies within the domain ‘Making Financial Choices’ were submitted to factor analysis to determine an overall financial competence score for the domain. The competencies included in the factor analysis are shown in Table 26.

**Table 26: Competencies Included in Making Financial Choices Factor Analysis**

Competence with managing savings
Competence with managing long-term savings
Competence with managing borrowing
Competence with managing cost of money

As shown in Figure 38, overall financial competence at making financial choices is low. The pattern of competence is similar to that found for the Managing Money domain. Older respondents exhibit significantly lower levels of financial competence than younger respondents. Women exhibit higher levels of financial competence than men. The most significant difference is between urban and rural households. Whilst overall competence is low, the average level of urban households’ financial competence at making financial choices (34) is 42% higher than those for rural households (24).



Regression analysis was undertaken to determine factors that indicate higher levels of financial competence at making financial choices. The variables included in the model were those shown in

Table 35 (refer Appendix). Ownership of a savings/cheque account with a bank and the total number of financial products owned were not included in the model as these variables contributed to the competency score for making financial choices.

Overall, the model explained 28% of the variance in the domain score. Six variables were significant predictors of competence with making financial choices: Urban location, being female, the ability to communicate in English, earning a regular wage or salary income, and the household having a budget. Joint management of household income may also be a significant variable. Women appear to consistently demonstrate higher levels of financial competence than men. The relationship between competence with making financial choices and urban location and receipt of a wage/salary income can be explained by the greater likelihood of engagement with the formal financial system, in particular ownership of a bank account as a consequence of waged/salaried employment. The relationship between competence at making financial choices and English language fluency is likely to be due to a greater willingness by English speakers to engage with the banking system, than non-English speakers. This may also, in part, explain the lower financial competence of older respondents. The relationship between competence with making financial choices and the household having a budget suggests competence with making financial choices may be related to competence with planning the use of household cash and managing cash fluctuations through saving and short-term borrowing.

## 4.5. Domain 3: Planning Ahead

Setting financial goals and planning the household's future income and expenditure are core financial competencies. Two groups of competencies were tested: Establishing financial plans and goals for the household; and budgeting household cash-flows. The competencies are shown in Table 27.

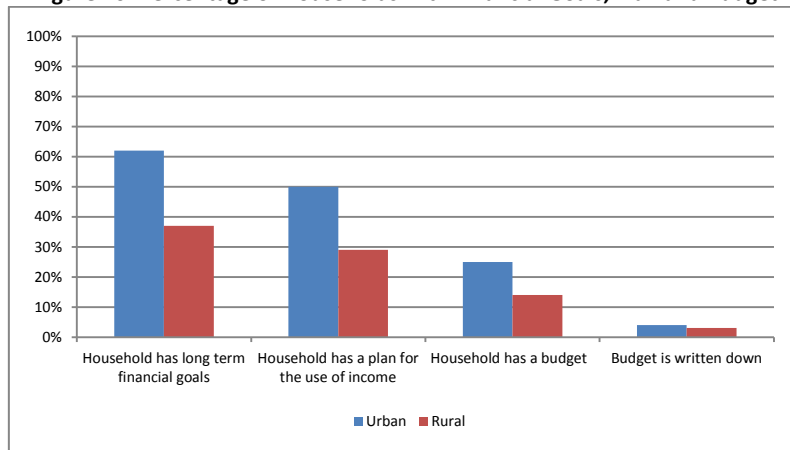
**Table 27: Budgeting and Planning**

Activity-Level Sub-Section	Competencies
Planning and goal setting	<ul style="list-style-type: none"> <li>• Determine household financial goals and communicate to all (relevant) household members</li> <li>• Monitor achievement of the household's financial goals</li> <li>• Develop and communicate a plan to achieve household goals to all (relevant) household members</li> <li>• Adjust the household financial plan periodically as the household's situation changes</li> <li>• Plan for one-off major expenditures and major unexpected expenses or changes in household situation</li> </ul>
Budgeting	<ul style="list-style-type: none"> <li>• Develop a budget based on household cash flows (referencing household financial records), in conjunction with all (relevant) household members</li> <li>• Use a budget to manage household cash flows</li> <li>• Communicate the household budget to all (relevant) household members</li> <li>• Revise/ update the household budget periodically</li> </ul>

### a) Planning

Most low income households do not plan, set goals or have a budget. The general approach to planning future household cash-flows appears to be passive and largely ad hoc. This is evidenced in the number of respondents who stated the household had a budget. 44% of respondents stated the household had financial goals, 35% that the household had a financial plan and 17% that the household had a budget. Less than 4% of households have a written budget. As shown in Figure 39, there is a significant difference between urban and rural households, with urban households consistently more likely to set goals, plans, and budget. In households with a financial plan, the plan is likely to relate to children. 70% of households interviewed had dependent children. Of those households, approximately 72% stated they had undertaken some form of activity to prepare for their children's future (typically a plan to provide for education expenses or saving money to pass on to the children).

**Figure 40: Percentage of Households with Financial Goals, Plan and Budget**



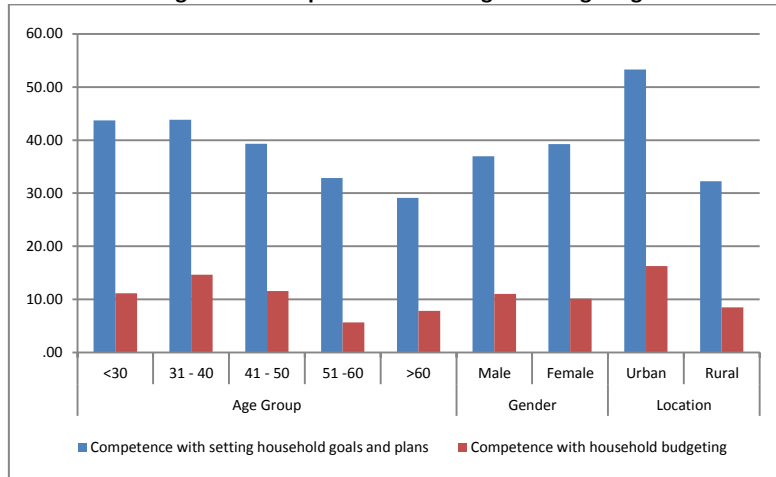
## **b) Budgeting**

As discussed above, urban households were more likely to budget than rural households. There is no consistent pattern with respect to age or gender. In households which budget, the ability to compare actual income and expenditure against budgeted income and expenditure is limited due to the very small number of households with a written budget.

Households that budget appear to be competent at managing the household budget. 68% of respondents stated they periodically checked household income and expenditure against the household budget. Women are more likely to check the budget than men. 60% of men stated they checked household income and expenditure against the budget, compared to 80% of women. 61% of respondents stated the budget covered all household income and expenditure.

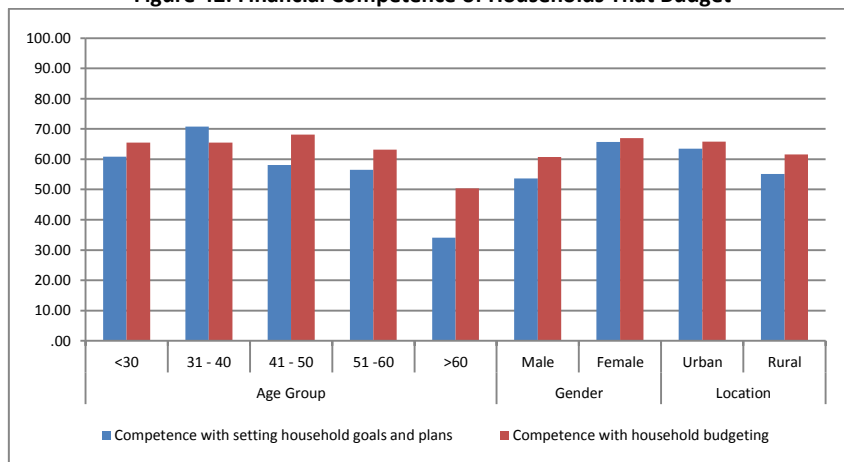
Due to the low level of household budgeting, analysis was not undertaken to determine factors that may predict the household having a budget. Factor analysis was not undertaken to determine a competency score for the domain 'Planning Ahead'. There are only two competencies for which scores were developed (planning and budgeting) and, as shown in Figure 40, the differences in the scores between all households, in particular urban and rural households, was marked.

**Figure 41: Competence - Planning and Budgeting**



By comparison, as shown in Figure 41, the competency scores for households with a budget exhibited greater congruence.

**Figure 42: Financial Competence of Households That Budget**



Regression analysis was undertaken to determine factors that indicate higher levels of financial competence with household planning and budgeting. The variables included in the model were those shown in Table 32 (refer Appendix). The household having a budget was not included in the model as this variable contributed to the competency score for planning ahead.

Overall, the model explained 25.6% of the variance in the score for planning ahead. Three variables were significant: urban location, ability to communicate in English, and the number of financial products owned (Refer to Appendix, Table 36). Urban households have consistently demonstrated higher levels of financial competence, across all domains. The ability to communicate in English is an



indicator of level of education and suggests households that are more likely to have a budget are the ones in which those who make financial decisions on behalf of the household, have completed secondary education. The number of financial products owned is an indicator of engagement with the financial system. Households that have a greater engagement with the financial system are more likely to have a budget.

#### **4.6. Domain 4: Seeking Financial Advice**

The domain 'Seeking Financial Advice' has not been included in the analysis, or the calculation of the overall competence score. Whilst respondents indicated they had used a range of sources of financial advice in the past, the most common source of advice was the respondent's spouse, friends or family (38% of respondents). The second most common response was "no one" (28% of respondents).

## Chapter Five: Policy Implications

### 5.1. Overview of Policy Implications

**It is evident from this study of the financial competence of low income households in Samoa, that the level of financial competence of these households is generally low.** The low level of financial competence is evident across urban and rural households. In addition, financial competence is low across all age groups, in particular older age groups, and both men and women. Therefore, whilst interventions may use delivery mechanisms developed for specific groups, a key finding of this study is that increasing the financial competence of all low income communities is a priority.

**Households that are more competent manage money differently to households which are not competent:**

- a) **Households that are more financially competent have a bank account.** This provides the household with the ability to effect electronic transactions and with a means of managing savings. Increasing the number of households which have access to the transaction system and a means of secure saving, will increase financial competence.
- b) **Households that are more financially competent have a deeper involvement with the financial system.** These households own more financial products. Deepening the household's engagement with the financial system, in particular the formal financial system, will increase financial competence. However, levels of understanding of the cost of money indicate caution in respect to programmes to increase product usage, as most households do not understand the cost of the financial products they use.
- c) **Households that are more financially competent have a budget.** These households plan household income and expenditure. The household does not necessarily write the budget down as a formal document. However, income and expenditure is planned in advance. Financial education programmes which can successfully increase the number of households that plan their income and expenditure will increase financial competence.
- d) **Households that are more financially competent manage the household's cash-flows collectively,** rather than each member of the household managing their own money individually. Financial education programmes that can successfully encourage the adults who are responsible for the management of the household's finances to work cooperatively, will increase financial competence.

## **Key Issues in the Financial Competence of Low income Households**

There are several key issues in respect to financial competence that have emerged from the study. These issues span both policy and programme activity and are considered to be issues of priority. Overall, it is recommended that policy and programme interventions focus on enhancing the active management of household cash-flows in low income households (including determination of responsibility for management of household cash flows), and increasing levels of financial inclusion and, related to this, the substitution of cash transactions for electronic transactions.

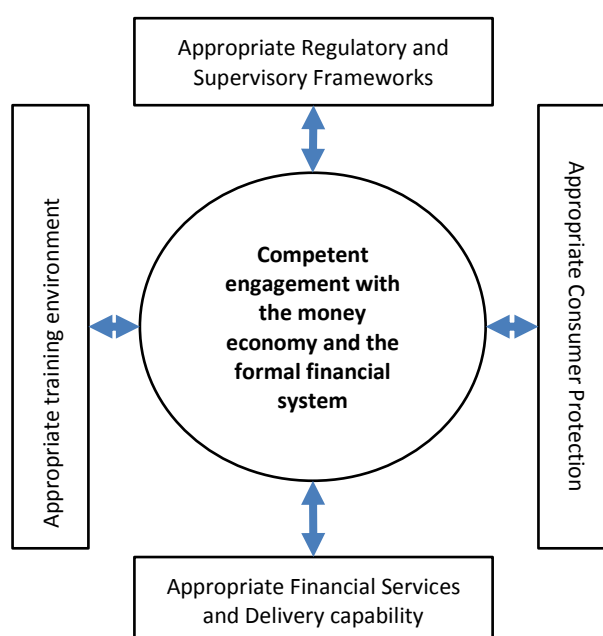
- a) **Increasing the number of low income households that have a bank account.** Engagement with the money economy requires a means of effecting transactions and keeping money safe. A continued focus on increasing financial inclusion is required, including involvement by the private sector and the innovative use of technology.
- b) **Understanding the cost of money.** The findings from this study in respect to understanding of the cost of money are unequivocal - adults who make financial decisions on behalf of low income households in Samoa have a very limited understanding of the cost of money. These households are therefore vulnerable to predatory practices, including having a limited ability to be able to determine the acceptability of a financial services offering. This not only exposes these households to the risk of high interest and fee charges, it also creates a potentially significant vulnerability to financial scams. Regulation may be required to protect vulnerable financial consumers. Perhaps of greater urgency is the requirement to strengthen disclosure and develop a comprehensive education programme relating to the cost of money, the importance of determining the cost of financial services, the potential risks of purchasing financial services products, and using a financial services provider before committing to the product. As engagement with the financial system deepens the requirement for households to understand the cost of money will increase.
- c) **Identifying and managing household cash-flows.** Most low income households appear to have a limited understanding of the actual cash flows coming into, or being spent, by the household. In part, this is due to a lack of budgeting and in part due to the household not managing finances collectively. In a household in which a regular salary is the dominant form of income and in which most transactions are electronic, it is common for members of the household to have a bank account, often a joint bank account. In these situations, the financial services provider undertakes primarily the function of recording financial transactions. These records are then periodically provided to the household by way of bank

statements or, increasingly, on-line enquiry. Households that continue to use cash for payments must both record transactions and pro-actively share information.

## 5.2. Policy Framework

The specific policy implications raised by the findings of this study have been considered using the conceptual policy framework shown in Figure 42.

Figure 43: Framework for Considering Policy Implications of Financial Competence



## 5.3. Financial Education

### a) Adult Financial Education

Consideration of competencies for school-based training interventions is outside the scope of this study. In respect to adult financial education programmes, it is recommended that consideration be

given to developing and supporting financial education programmes which seek to increase the specific competencies contained in the Minimum Adult Financial Competency Framework (MAFC).

Implementation of adult financial education programmes is an important contribution to increasing financial competence. However, unless the programmes are structured to increase specific competencies, and the competence of participants is measured, it is not possible to know how successful the programme has been in increasing skill.

In addition, measurement of the effectiveness of financial education programmes is required. At this time, it is not possible to know the extent to which training programmes are increasing financial competencies in the MAFC. The use of a competency-based approach to adult education is widely accepted and is grounded in the skill-development pedagogy. Inherent in the theory of competency-based pedagogy is the concept of measurement. By using the MAFC, the effectiveness of all financial education programmes can be measured in respect to the specific competencies for which training is being provided, both prior to and following the training. Generally, a skills development intervention is not considered complete until the participant is able to demonstrate they are competent in the specific skill for which they have received training.

## **b) Consumer Education**

As discussed above, levels of understanding of the cost of money are very low across all low-income households. This is an issue of significant concern. It is recommended consumer education programmes be developed to increase consumer understanding of the cost of money. Consumer education is a long-term commitment and should be accompanied by an appropriate disclosure regime (using terms appropriate for low income households, whose members may have limited ability to read in English).

## **5.4. Financial Services and Delivery Capability**

### **a) Participation in the Formal Financial System**

Levels of bank account ownership by low income households in Samoa, appear to be greater than those found in previous studies. This is likely to be a consequence of both increased outreach by

banks and non-bank financial institutions and the priority given by the Central Bank of Samoa to creating a more inclusive financial sector. However, the findings of this study suggest financial exclusion continues to be an issue for low income households. Lack of financial inclusion is a constraint to financial competence and, at the national level, may constrain economic growth and result in persistent income inequality. Developing the financial sector and improving access to finance may accelerate growth and facilitate a reduction in income inequality and therefore promote an increase in wellbeing for the disadvantaged<sup>13</sup>. Demirguc-Kunt and colleagues<sup>14</sup>, for example, have shown that even in societies with the same average income, those with deeper financial systems have lower absolute poverty. Bringing more unbanked customers into the financial mainstream can lead to higher household savings levels, which in turn can lead to a rise in savings levels in the economy and asset-building in communities<sup>15</sup>.

## **b) Use of Electronic Payments**

In a monetised economy, households that do not access the formal financial system incur increased transaction costs. Lack of access to transaction banking facilities restricts access to the formal payments system. This imposes increased transaction costs and reduces access to a range of common transaction and payment services. As discussed above, continued use of cash transactions also places an additional burden on the household in respect to household record keeping.

Use of cash for payments continues to be a feature of low income household payment activity. Whilst this is inevitable in the informal economy, increasing urbanisation and wage/salary income, coupled with the advent of mobile phone banking, suggest greater focus may be required on expanding and/or deepening electronic payments systems, across a range of channels. The level of remittance activity and the transaction costs associated with remittances may also warrant consideration by product providers and regulators, particularly as remittance activity is more prevalent among the older age group who have lower levels of financial competence.

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<sup>13</sup>RBI. (2008). Report on Currency and Finance. Delhi: Reserve Bank of India.

<sup>14</sup>Demirguc-Kunt, A., Beck, T., & Honohan, P. (2008). Finance for All: Policies and Pitfalls of expanding access. Washington: World Bank.

<sup>15</sup>OECD. (2005). Improving Financial Literacy: Analysis of Issues and Policies. Paris: Organisation for Economic Co-operation and Development.

### **c) Use of Informal and Consumer Credit**

Low income households borrow to smooth cash flow shortages and, to a lesser extent, to fund the purchase of consumer durables. It is also evident many households appear to have an inadequate level of financial competence in respect to the management of borrowing. A significant number of households appear to have difficulty managing credit. Whilst the use of informal money lending and the use of hire purchase as reported by households participating in this study are low, it is considered this is likely to increase in the medium term.

## **5.5. Regulatory Framework**

### **a) Retirement Provision**

There appears to be an emergent issue in respect to retirement provision. Low income households continue to rely on socially provided support, in particular from children. However, in an urbanised, monetised environment, the ability to rely on social support diminishes.

There are fundamental policy, regulatory and product issues that may need to be addressed as the requirement for cash-based retirement provision supersedes social support. Consideration of these issues is beyond the scope of this report and requires further research and policy consideration.

Further work to develop an information base from which to consider policy options is recommended.

## **5.6. Consumer Protection**

### **a) Cost of Money**

Levels of understanding of the cost of money are very low, across all low income groups. This is an issue of some concern. The low level of financial competence with the cost of money is likely to result in low income households being particularly vulnerable to financial services providers whose fees and charges they may not understand or be aware of. These households are also likely to be particularly vulnerable to financial scams due to a lack of understanding of financial products, the risks associated with financial service providers and reasonable levels of both fees and charges and



financial return. It is suggested that a programme be considered to increase the awareness and understanding of low income households, of the cost of money.

### **b) Long-term Savings and Credit**

As discussed above, there is a pervasive lack of understanding of investment and credit. It is suggested that consideration be given to programmes to increase the awareness and understanding of low income households, of both consumer credit and cash-based retirement provisioning.

### **c) Household Financial Management Behaviours**

As has been found in previous studies, most low income households do not adopt competent financial management behaviours. It is clear that households in which household finances are managed jointly have higher financial competence. In addition, households with a budget also have higher financial competence. There appears to be an ongoing need to deploy relevant financial literacy training in an effort to increase joint household financial management and household budgeting.

### **d) Seeking Financial Advice**

It is evident low income households consider they have few sources of reliable professional financial advice, or have a limited knowledge of the sources of advice available. It is recommended that consideration be given to the development of consumer programmes to increase the financial advisory channels available to low income households and the use of these channels by financial decision makers in low income households.

## **5.7. Follow up Studies**

The present study has sought to develop a baseline of the financial competence of low income households in Samoa. It is recommended further update surveys be undertaken at 2-4 year intervals in order to measure progress in increasing the financial competence of low income households.

Whilst the full survey can be deployed, it may be possible to use a small set of indicator questions. It is not possible at this time to state whether the indicator questions discussed in Chapter Two will be adequate for follow-up surveys. Studies of the financial competence of low income households are also being undertaken in several other Pacific island countries. Initial analysis suggests the four financial management competencies may be able to be used as a simple and easily administered indicator of household financial competence. If this is the case, it may be possible to include these four questions as part of regular national surveys (for example the Household Income and Expenditure Survey, or the Labour Force Survey). This would be a low cost way of periodically measuring the financial competence of the adult Samoan population.

## **Chapter Six: Design of the Study**

This study is an interviewer-administered, closed-question study, to measure financial behaviours adopted by the Principal Financial Actors in low income households in Samoa. Questions were developed to measure the competencies defined within the Minimum Adult Financial Competency Framework for Low income Households in Pacific Island Countries<sup>16</sup>. Financial knowledge and skill was not measured since the purpose of the study was to develop an understanding of behaviour. Knowledge and skill can be inferred from behaviour. However, no attempt has been made to determine levels of knowledge and skill relative to behaviours adopted.

### **6.1. Instrumentation**

A standard, closed-question instrument was used. The respondent was required to answer all (relevant) questions. However, each question allowed for refusal, or for the respondent to advise they did not understand the question or did not know the answers.

Two question formats were used: forced choice and pre-coded answers. Forced choice questions were principally in 'yes/ no' format. Pre-coded answers were derived from the responses provided by focus group members who participated in the development of the Minimum Adult Financial Competency Framework for Low income Households in Pacific Island Countries. Questions and answers were reviewed by an in-country reference group of subject matter experts, as well as being reviewed by enumerators during pre-field work training.

### **6.2. Translation**

The survey was administered in Samoan as this is the primary language spoken by respondents. Enumerators were also able to ask questions in English.

The translation was work-shopped with the enumerators. Several questions were localised for the Samoan environment.

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<sup>16</sup> Refer Appendix

## **6.3. Sampling**

### **a) Population of Interest**

The population of interest was low income households in Samoa. These were defined as households in the bottom four deciles of the population (derived from the Household Income and Expenditure Survey).

### **b) Sampling Frame**

The sampling frame used was derived from households that had participated in the Household Income and Expenditure Survey (HIES). An anonymised extract of households in deciles 1-4 was provided by the Samoa Bureau of Statistics (SBS). A random selection of Enumeration Areas (EA's) was undertaken using proportional probability sampling. The nominal number of households was 220, spanning rural and urban households. The HIES sample was developed using probability sampling. It was therefore preferable to sample from the low deciles of the HIES, rather than seeking to sample independently.

### **c) Sample Size**

A nominal sample size of n=400 individuals from n=200 households was determined. A random selection of 400 individuals from the low income population enables generalisation to low income households. A nominal composition was established to guide the selection of household's location and, in respect to interviewees, gender:

- 50% urban, 50% rural
- 50% male, 50% female

The initial sample was reviewed manually to ensure households were accessible. Households that were likely to be logistically difficult to access were excluded with replacement sampling as required.

398 samples were collected from households in deciles 1-4. The sample size has a Confidence Interval of +/- 5.0%.

## 6.4. Scoring Model

### a) Development of the Competency Scores

The literature provides little guidance as to an appropriate scoring methodology. The FSA base-line study developed a summative score using Principal Components Analysis and developed a single factor for each of the financial capability domains examined by the study. The method used to convert categorical responses to ordinal or scale responses was not discussed in the FSA Report.

An additive, unweighted approach has been used for this analysis as this treats each element equally. This is considered appropriate as there is no basis in the literature for determining the relative importance of competencies, or weighting competencies based on importance. The competency set comprises those competencies considered necessary for effective participation by low income households in the money economy and the formal financial system.

Competency questions scores were based on whether the respondent engaged in the activity. The exception was competency questions relating to who in the household was responsible for the activity. If the respondent, as a Principal Financial Actor (who by definition was responsible for household financial management) stated they were not engaged in the management of the activity, a score of 0 was assigned.

The survey used two forms of financial competence questions: binary and composite. Binary questions sought a 'yes/no' answer, or a specific response. Composite questions were either categorical questions which explored the range of respondents' financial behaviour, or scale questions which explored specific financial behaviours. The categorisation is summarised in Table 28. Composite questions used the pre-categorised answer approach adopted by the FSA.

**Table 28: Question Structure and Scoring**

Binary	Composite
Measures whether behaviour not adopted/adopted	Measures the extent behaviour not adopted/adopted

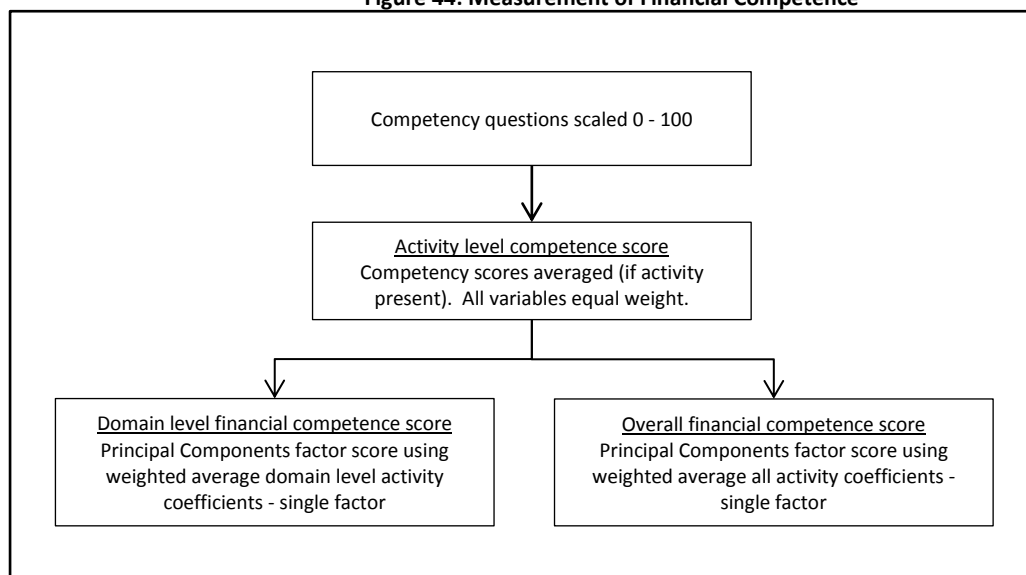
The number of questions used to examine each competence varied from 1 to 7. Each question was re-scaled to a notional value of 100. Filter questions were excluded. Financial behaviour binary questions were assigned a value of 100 if the respondent reported the behaviour being present and 0 if the behaviour was not reported as being present. Composite categorical questions were converted to a scale response by measuring the number of pre-categorised responses provided against the total number of responses which could have been provided, or the extent to which the behaviour was present. Composite scale questions were also rescaled to a notional value of 100. Ordinal scaling was used, with unit values assigned using a standard scale (refer Table 29). Due to averaging, activity level scores have been smoothed to some extent.

**Table 29: Ordinal Scaling**

	Four Categories	Three Categories
Fully competent	100	100
Very competent	75	-
Moderately competent	50	50
Low competence	25	-
Not competent	0	0

Activity-level scores were then factored to create a domain score. Domain scores were developed using the weighted average of factor coefficients. Using the approach summarised in Figure 43, a person who engages in a small number of activities, but does them very competently, will have a higher competency score than a person who engages in a wide range of activities but does them with less competency.

**Figure 44: Measurement of Financial Competence**



Factor analysis was used to determine the overall financial analysis of low income households in Samoa. The competencies used to determine domain scores were re-factored to develop an overall Financial Competence score. The competencies used in the factor analysis are shown in Table 30.

**Table 30: Competencies Used to develop Overall Competence Score**

Competence with non-cash transactions
Competence with managing household income
Competence with identifying and recording household expenditure
Competence with managing essential expenditure
Competence with managing regular and one-off expenditure
Competence with managing requests for financial assistance
Competence with keeping household records
Competence with managing savings
Competence with managing long-term savings
Competence with managing borrowing
Competence with managing cost of money
Competence with setting household goals and plans
Competence with household budgeting

### a) Relative Competency Scores

The competence score was generated using the weighted average of the factor coefficients. In general terms, competence can be measured against the scale shown in Table 31:

**Table 31: Financial Competence Score**

	Score
Low	0 - 25
Low-Moderate	26 - 50
Moderate-High	51 - 75
High	76 - 100

## **b) Categories used for the Composite Figures**

In order to reduce the number of figures in the report, a composite figure has been used where relevant to summarise results for age groups, gender and location. In respect to gender, the responses should, unless otherwise stated, be read as the response of the male or female principal financial decision maker in the household, to a question about an aspect of the financial behaviour of the household, rather than an aspect of personal financial behaviour.

## **6.5. Field Work**

The study was undertaken under the auspices, and management of the Central Bank of Samoa (CBS), using experienced enumerators who were trained by a team from CBS, SBS and PFIP. Data was collected electronically using notebook PC's. Enumerators were trained in both the administration of the survey and the use of PC's

Three committees were established to manage the interaction between CBS and SBS and to oversee the finalisation of the instrument and the field work, comprising:

- **A steering committee** to oversee the study comprising senior staff from SBS, CBS and PFIP.
- **A working group** comprising SBS staff involved in the HIES, CBS staff involved in the financial competence study and the PFIP research team to oversee the sampling and the deployment of the survey.
- A **reference group** of in-country subject matter experts to review the competency framework and the questions.

Data collection was undertaken between 19 September and 5 October 2011. As data was collected electronically, data entry was not required.

## **6.6. Ethics**

Members of the Samoan community undertook the fieldwork. An interviewer of the same gender as the interviewee conducted the interviews. Interviews were conducted at a location suitable to the interviewee. All data were collected in confidence. All participants were enrolled on the basis of voluntary informed consent. An information sheet was provided to each participant in advance, to



agree to participate in the interview. An opportunity was provided for each interviewee to ask questions about the study prior to the commencement of the interview. The information sheet stressed participation in the study was voluntary and interviewees were under no obligation to answer any or all of the questions in the survey. Covert data collection methods were not used. Participants were not remunerated for participating in the study.

A post-survey audit of households was undertaken by CBS to ensure the survey protocol and ethical guidelines had been adhered to.

## Appendix

### a) Regression Model

A regression model was developed for each financial competence domain and for the overall level of financial competence. A common set of independent variables was used for the analysis of each domain, encompassing demographic, language, financial participation and household financial management factors. These are summarised in Table 32. Standard multiple regression was used as there is no basis in the literature for using step-wise regression. Cells highlighted in yellow are significant variables.

**Table 32: Variables used in Regression Analysis**

Category	Variable	Reason for inclusion
Demographic	Location	Determine possible influence of rural or urban location
	Age	Determine possible influence of age
	Gender	Determine possible influence of gender based financial activity
	Source of Income; Wages/ salary Casual wages Farming/ fishing/ gardening Formal/ informal business	Determine possible influence of income type
Language	English language fluency	Determine possible influence of English language fluency
Participation in formal financial system	Ownership of a savings account with a bank	Determine possible influence resulting from participation in the formal financial system
	Number of financial products owned	
Household financial management	Household income managed individually/ jointly	Determine possible influence of joint versus individual household cash-flow management (income was used as a proxy)
	Household has a budget	Determine possible influence of forward planning and discipline for overall financial competence

## b) Regression Analysis: Managing Money

**Table 33: Regression Analysis – Managing Money**

		Beta	<i>p</i>
	(Constant)		.015
Demographic	Location (rural)	-.038	.485
	Age	.003	.956
	Gender	.132	.011
Source of Income	Regular wages/ salary	.048	.383
	Casual wages	.012	.829
	Farming/ fishing/ gardening	.046	.395
	Formal/ informal business	.037	.476
Language	Communicate in English	-.001	.988
Financial Management	Savings/ cheque account with bank	-.084	.120
	Household has a budget (reversed scale)	.096	.068
	Household income managed jointly	.084	.112

## c) Logistic Regression: Predictors of Bank Savings Account Ownership

**Table 34: Predictors of Savings Account Ownership**

	Wald	Sig.	Exp(B)
Location (Urban)	5.538	.019	.535
Age	.057	.811	1.023
Gender	.125	.724	1.087
Wage and Salary Income	10.272	.001	2.328
Casual Wage Income	.294	.588	.864
Income from Primary Production	3.674	.055	.621
Income from Business	14.272	.000	2.809
English language fluency	1.583	.208	1.003
Household has a budget	5.273	.022	2.004
Household income managed jointly	.490	.484	1.182
Constant	3.453	.063	.320

## d) Regression Analysis: Making Financial Choices

**Table 35: Regression Analysis - Making Financial Choices**

		Beta	p
	(Constant)		.001
Demographic	Location (urban)	-.212	.000
	Age (inverse)	-.090	.061
	Gender (Female)	.170	.000
Language	Communicate in English	.232	.000
Source of Income	Regular wages/ salary	.112	.020
	Casual wages	.011	.812
	Farming/ fishing/ gardening	-.016	.732
	Formal/ informal business	.084	.063
Financial Management	<i>Household income managed jointly/ individually</i>	.088	.058
	Household has a budget	.228	.000

## f) Regression Analysis: Planning Ahead

**Table 36: Regression Analysis – Planning Ahead**

		Beta	p
	(Constant)		.039
Demographic	Location (urban)	-.180	.001
	Age	-.054	.274
	Gender	.055	.237
Language	Communicate in English	.179	.001
Source of Income	Regular wages/ salary	.082	.108
	Casual wages	.035	.451
	Farming/ fishing/ gardening	.019	.690
	Formal/ informal business	.079	.092
Financial Management	Savings/ cheque account with bank	-.052	.344
	Number of financial products owned	.259	.001
	Household income managed jointly/ individually	.063	.176

### g) Regression Analysis: Financial Competence

**Table 37: Regression Analysis – Financial Competence**

		Beta	p
	(Constant)		.050
Demographic	Urban or rural location	-.094	.029
	Age	-.013	.764
	Gender (female)	.205	.001
Language	Communicate in English	.153	.001
Source of Income	Regular wages/ salary	.001	.982
	Casual wages	.034	.406
	Farming/ fishing/ gardening	.030	.472
	Formal/ informal business	.040	.330
Financial Management	Savings/ cheque account with bank	.027	.583
	Number of financial products owned	.426	.001
	Household income managed individually/ jointly	.094	.022
	Household has a budget	.245	.001

### h) Regression Analysis: Financial Competence (Adjusted)

**Table 38: Regression Analysis – Financial Competence (adjusted)**

		Beta	p
	(Constant)		.000
Demographic	Urban or rural location	-.196	.000
	Age	-.072	.158
	Gender (female)	.165	.001
Language	Communicate in English	.185	.000
Source of Income	Regular wages/ salary	.150	.003
	Casual wages	.044	.364
	Farming/ fishing/ gardening	.036	.476
	Formal/ informal business	.112	.018



