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Samoa Multidimensional Poverty Index 2023

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ACRONYMS

A	Intensity
AF	Alkire-Foster
AUA	Apia Urban Area
BNPL	Basic Needs Poverty Line
CI	Confidence Interval
FPL	Food Poverty Line
H	Incidence or poverty headcount
HIES	Household Income and Expenditure Survey
K	Poverty cut-off (k-value)
MPI	Multidimensional Poverty Index
NEET	Not in Employment, Education, or Training
NWU	North-West Upolu
OPHI	Oxford Poverty Human Development Initiative
PACSTAT	Statistical Innovation and Capacity Building in the Pacific Islands
PDS	Pathway for the Development of Samoa
PSMB	Pacific Statistics Methods Board
ROU	Rest of Upolu
SAV	Savai'i
SBS	Samoa Bureau of Statistics
SDG	Sustainable Development Goal
SPC	Pacific Community

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PREFACE

Samoa's second Multidimensional Poverty Index (MPI) Report was prepared by the Samoa Bureau of Statistics (SBS) with the technical assistance provided by the Oxford Poverty Human Development Initiative (OPHI) and the Pacific Community (SPC). Financial support was provided by the World Bank through the Statistical Innovation and Capacity Building in the Pacific Islands (PACSTAT) project (P169122).

This is the second report of this nature, providing a detailed description of the various dimensions and indicators relating to non-monetary poverty to complement existing monetary poverty estimates. The main objective of this report is to identify and monitor key simultaneous disadvantages that affect people facing hardship multidimensionally, both at the national and regional levels.

This report represents a significant contribution towards measuring and monitoring progress on achieving Goal 1 and Target 1.2 of the Sustainable Development Goals (SDGs) on multidimensional poverty in Samoa.

The empirical study and analysis included in this report will guide policy analysts and policy makers to enable them to catalyse poverty reduction by viewing different indicators disaggregated either at the national or regional level. Additionally, the statistical information and analysis from this report can be used to identify and target people facing hardship and vulnerable groups, resource allocation to have the maximum poverty reducing impact, coordinate multisectoral policies and approaches and, to manage interventions and make evidence-based policy adjustments that will accelerate impact. This is to ensure that resource allocation and target programmes to the most vulnerable groups and/or regions having the largest number of people facing hardship effectively managed and monitored.

In this way, Samoa's MPI broadens the scope and understanding of poverty in the country by providing a complementary measure to the existing monetary measure that has been traditionally used over the years by Samoa.

At the national forefront, Samoa's MPI was designed to mirror the vision of Samoa's Pathway for the Development of Samoa (PDS) FY 2021/22 – FY 2025/26 of fostering social harmony, safety, and freedom for all by improving social development as one of its key strategic outcomes.

I would like to express my sincere gratitude to OPHI and SPC for their continuous support and technical guidance in this major undertaking. A special word of thank you goes out to Mr Michael Sharp (Statistics Adviser at SPC) for securing fundings for this project without which, this report would not have been made possible.

Last but not least, an acknowledgement of the SBS Management and Staff commitment and dedication put in through the whole process, from data collection, data processing, coordination and the compilation of this report.

It is with the hope that Samoa is on the right path to combat and end poverty in all its dimensions, ensuring that no one is left behind.



Leota Aliielua Salani

GOVERNMENT STATISTICIAN



EXECUTIVE SUMMARY

This report presents Samoa's national Multidimensional Poverty Index (MPI) which is based on the Alkire-Foster method, using the latest survey data from the 2023 Household Income and Expenditure Survey (HIES). Samoa's MPI comprises three dimensions: health, education and employment, and living standards. To tailor the measure to Samoa's context and public policy priorities, nine indicators were used for this national measure. Two indicators are under the health dimension (food security and main source of drinking water), four indicators are under the education and employment dimension (school attendance, years of schooling, youth not in employment, education or training (NEET) and school lag), and three indicators are used within the dimension of living standards (asset ownership, housing quality and internet connection). Nested weights were used to determine the value of each dimension, where each of the three dimensions was given an equal relative importance of 33.3% in Samoa's MPI, while each indicator was weighted equally within each dimension.

Multidimensional poverty at-a-glance

Using the 2023 HIES data, it was estimated that 15.2% of Samoa's population, or 31,382 people, are multidimensionally poor. Average intensity of deprivation, which reflects the percentage of weighted deprivations that the poor person experiences on average, is 42.8%. In other words, multidimensionally poor people in Samoa are on average deprived in 42.8% of the weighted indicators (or 4) of the identified nine indicators.

Samoa's MPI, which is the product of the percentage of poor people (incidence) and intensity of poverty, stands at 0.065. This implies that multidimensionally poor people in Samoa experience 6.5% of the total deprivations that would be experienced if all people were deprived in all indicators. Furthermore, the incidence of poverty in the urban area¹ was reported to be 8.4% while the incidence of poverty in the rural area² is 16.6%, almost twice that reported in the urban area.

In terms of the percentage contribution of each of the nine indicators to overall multidimensional poverty, the largest contribution comes from food security which contributes 31.6% to the MPI, followed by housing with 19.8%, and main source of drinking water with 18.1%. When aggregating the indicators by dimensions, the largest contribution is due to health which accounts for 49.7% while the other two dimensions of living standards and education and employment account for 28.6% and 21.8% respectively. This tells us that improving health – and food security, including access to healthy food and safe drinking water, in particular – are key interventions necessary to reduce multidimensional poverty in Samoa.

¹ Is made up of the region of Apia Urban Area (AUA).

² Is made up of the regions of North-West Upolu (NWU), Rest of Upolu (ROU) and Savai'i (SAV).

Multidimensional poverty across regions

There are notable regional disparities in Samoa. The Rest of Upolu (ROU) region appears to be the poorest of all the regions in Samoa with a poverty incidence of 19.7% (9,866 persons), followed by North-West Upolu (NWU) with 15.6% (11,863 persons), Savai'i (SAV) with 14.7% (6,738 persons), and then Apia Urban Area (AUA) with an incidence of 8.4% (2,916 persons). It must be noted that the Rest of Upolu has a higher incidence than NWU but there are more multidimensionally poor people living in NWU due to the population distribution of Samoa.³

Characteristics of multidimensional poverty

According to the results of the 2023 HIES, the age group of 0–14 years reveals the highest MPI of 0.074, which is also higher than the national index of 0.065. This represents a relative reduction of 52.9% over the corresponding figure of 0.158 reported in the 2018 HIES. Additionally, the age groups of 25–55 and those aged 65 years old and above both reported the lowest indices of multidimensional poverty equal to 0.057.

When looking at the multidimensional poverty index by sex of the household head, the 2023 HIES reported a slight difference in MPI between female-headed households and male headed households with indices of 0.071 and 0.063 respectively. The results for 2023 show a different pattern compared to the one in 2018 where male-headed households presented an MPI equal to 0.145, compared to the female-headed households index of 0.125.

In both years 2023 and 2018, household heads who never completed any level of education had the highest MPI, with 0.146 in 2023 and 0.315 in 2018, representing a reduction of 0.169 points in the MPI in five years. In relation to this, those people living in a household whose head never completed any level of education reported the highest incidence of multidimensional poverty in 2023 with 29.0% as opposed to those living in a household whose head completed primary education with 61.8% as reported as being multidimensionally poor in the 2018 HIES. Overall, the MPI and the incidence of multidimensional poverty decreased between 2018 and 2023 in all groups.

The results of the HIES 2023 revealed the prevalence of multidimensionally poverty was higher in larger households. A similar trend was also observed in the 2018 HIES results.

³ Based on the 2023 HIES, 16.8% of the population reside in the region of AUA, 36.8% in NWU, 24.3% in ROU and 22.1% in SAV.

RECOMMENDATIONS

The last section of this report outlines a detailed set of recommendations including using Samoa's MPI value of 0.065 to report and monitor SDG indicator 1.2.2; promoting the use of both MPI and income-based poverty measures for efficient resource allocation since both measures complement each other; have a multisectoral approach or alternatively allocate resources by sector in combating multidimensional poverty due to the overlapping deprivations of certain indicators; create policy interventions to enforce compulsory education including Early Childhood Education and to incentivise and promote the completion of secondary education and to encourage everyone to attend formal education create policy interventions to address rural deprivations, especially in the ROU region which has the highest MPI of 0.089 and incidence of poverty of 19.7%.



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CHAPTER 1. HISTORY AND INTRADUCTION

This chapter provides a brief history of poverty in Samoa and it introduces Samoa's second MPI report, with the following sections:

- 1.1 History of monetary poverty measurement in Samoa
- 1.2 New methodology to measure monetary poverty in Samoa
- 1.3 Context of the MPI
- 1.4 Purpose of Samoa's MPI

1.1. History of monetary poverty measurement in Samoa

Traditionally, poverty has been perceived as having insufficient money to spend on food and non-food items such as health, education, electricity, or safe drinking water. In 2002, Samoa through the Samoa Bureau of Statistics measured poverty in monetary terms by using the data on the 2002 Household Income and Expenditure Survey (HIES). Since then, the Samoa Bureau of Statistics have conducted HIES regularly in 2008, 2013/14, 2018 and 2023 to estimate and calculate the monetary values of consumption expenditures on various aspects of life including food, education, health, housing, transportation, and income.

Poverty lines were estimated based on the Cost of Basic Needs Approach where the minimum calorie intake for human survival was benchmarked at an average of 2,100 kilocalories per adult per day, which is World Bank recommended daily minimum capita calorie intake for estimating food poverty lines (UNDP, 2016). The Food Poverty Line (FPL) was calculated by costing this daily minimum food basket containing 2,100 kilocalories. Those individuals with per capita expenditure below this FPL are considered to be in food poverty since their expenditure is below the minimum food basket value.

On the other hand, the Basic Needs Poverty Line (BNPL) was obtained by adding the FPL with the cost of purchasing non-food basic needs such as transport, communication, education related expenses, health related expenses, utilities, clothing and housing related expenses. Individuals were considered to be poor if the per capita consumption expenditure was less than the BNPL.

In addition to the above, other critical poverty-related measures were also calculated to measure poverty namely, the Poverty Gap Index, Squared Poverty Gap Index and the Gini Coefficient.⁴

As can be seen in **Table 1**, the official poverty rates at the national level have shown an increase from 22.9% of the population in 2002 (40,196 persons) to 26.9% in 2008 (49,090 persons) then declining to 18.8% in 2013/14 (36,040 persons) before increasing again to 21.9% in 2018 (43,675 persons) and finally decreasing to 15.2% in 2023 (32,214 persons). Over a twenty-year period, the national poverty rate has reduced by about a third from 22.9% in 2002 (40,196 persons) to 15.2% in 2023 (32,214 persons).

⁴ Refer to Samoa Monetary Poverty Assessment 2025 for detailed description and analysis.

The incidence of poverty varies greatly at the regional level in that each region was reported as being the poorest region during different versions of the HIES. For instance, it was NWU in 2002, SAV in 2008, AUA in 2013/14 and 2018 and ROU in 2023.

When comparing with the 2018 HIES results and with the exception of the ROU region, the table further reveals that the proportion of people living below the poverty line has reduced in all the remaining three statistical regions but notably in the AUA region with a reduction of 19.9 percentage points. Conversely, ROU is the only region of Samoa which in the past two decades has not made any progress in reducing poverty (both the incidence and headcount) with a rate of 15.1% in 2002 and 23.7% in 2023 representing an increase of 8.6 percentage points over the period (or 6,444 more poor persons).

Table 1. Monetary poverty rates in Samoa by region⁵, 2002–2023

Region	Percentage of population				
	2002	2008	2013/14	2018	2023
Samoa	22.9	26.9	18.8	21.9	15.2
Apia Urban Area	25.9	24.4	24.0	28.6	8.7
North-West Upolu	29.5	26.8	23.7	23.8	16.1
Rest of Upolu	15.1	26.6	13.6	18.1	23.7
Savai'i	19.1	28.8	12.5	17.9	9.4

Source: Samoa Poverty and Hardship Reports, 2008, 2013/14, 2018 and 2023.

Table 2. Number of monetary poverty in Samoa by region, 2002–2023

Region	Population headcount				
	2002	2008	2013/14	2018	2023
Samoa	40,196	49,090	36,040	43,675	32,214
Apia Urban Area	9,732	9,093	8,810	10,744	3,147
North-West Upolu	16,104	15,441	15,487	17,189	12,493
Rest of Upolu	5,965	11,788	6,090	8,396	12,409
Savai'i	8,377	12,468	5,609	7,742	4,258

Source: Samoa Poverty and Hardship Reports, 2008, 2013/14, 2018 and 2023.

1.2. Context of the MPI

Samoa, like other countries, has measured poverty only by income or consumption for over a decade. Focusing on monetary poverty alone or any single indicator such as income or consumption cannot capture the multiple dimensions of poverty. Therefore, Samoa adopted the MPI. At the regional level, the PSMB (Pacific Statistics Methods Board) discussed in October

⁵ Apia Urban Area Region – comprises of the districts of Vaimauga 2, 3 & 4 and Faleata 1.

North-West Upolu Region – comprises of the districts of Vaimauga 1, Faleata 2, 3 & 4, Sagaga 1, 2, 3 & 4, Aana Alofi 1, 2, 3 & 4.

Rest of Upolu Region – comprises of Aiga i le Tai, Falelatai & Samatau, Lefaga & Faleaseela, Safata 1 & 2, Siumu, Falealili 1 & 2, Lotofaga, Lepa, Aleipata Itupa i Lalo & Luga, Vaa o Fonoti, Anoamaa 1 & 2.

Savai'i Region – comprises of all the districts in Savai'i.

2018 the possibility of measuring non-monetary poverty in the Pacific region using MPI.⁶ PSMB will develop guidelines in the near future to ensure that each country in the Pacific region will be able to adopt and contextualize measuring non-monetary poverty according to country circumstances.

Multidimensional poverty can be viewed as experiencing overlapping deprivation of certain indicators. Someone who is poor can experience numerous disadvantages simultaneously such as lacking access to clean water, lacking sanitation or having little or no formal education.

Samoa's MPI complements existing monetary poverty measures by counting the different types of deprivations/ indicators that individuals experience simultaneously which are essential to guarantee a dignified life. The latest MPI of Samoa comprises nine non-monetary indicators across three dimensions of health, education and employment, and living standards.

As with Samoa's first MPI report in 2022 using the data from the 2018 HIES, this report has been developed and aligned to reflect various Key Strategic Outcome depicted in the Pathway for the Development of Samoa (PDS) FY 2021/22 – FY 2025/26, with the vision of fostering social harmony and the theme of empowering communities, building resilience and inspiring growth. These Key Strategic Outcomes include improved social development, secured environment and climate change and structured public works and infrastructure.

1.3. Purpose of Samoa's MPI

The purpose of Samoa's MPI is to identify and monitor key simultaneous indicators that directly affect multidimensionally poor people. The selection of Samoa's MPI indicators was to provide a clear way of designing programs that will deliberately target the multidimensionally poor. These MPI indicators can help in monitoring and evaluating existing plans and programs, as well as in formulating new plans and programs that target poverty reduction.

In preparation for the compilation of the indicators to be used in the MPI, the Samoa Bureau of Statistics (SBS) decided to use the HIES survey due to the following reasons: the survey has been consistently conducted by SBS every 5 years since 2002 and will be continued in the future; employment indicators can be compiled and computed; national ownership through SBS and can be linked to various Key Strategic Outcome of the Pathway for the Development of Samoa (PDS) FY 2021/22 – FY 2025/26; and the results and analysis can be compared with the 2022 MPI report.

⁶ PSMB10 Meeting report, October 2022.

Samoa's MPI was designed with the following purposes:

1. To compile and report against SDG 1 (*End Poverty in All Its Forms Everywhere*) indicator 1.2.2 (proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions).
2. Enable the measurement and monitoring of progress against indicator 1.2.2. The continuous implementation of HIES every 5 years will facilitate this process.
3. Complement existing monetary poverty measurement used by Samoa, including the FPL and the BNPL. MPI can be used to measure non-monetary aspects of poverty such as access to health services and facilities, housing materials, education, school lag, employment, and others.
4. The MPI can be used to identify and compare non-monetary aspects of poverty across different regions of Samoa to support evidence-based policy making. This will enable the government and donor partners to focus their services, policies, and even programs on combating non-monetary poverty and to monitor the effectiveness of these policies or programmes.



CHAPTER 2. METHODOLOGY

In 2023, the HIES data collection method and monetary poverty assessment method changed to produce a dataset that more accurately estimates household final consumption expenditure. The indicators used to compile the 2023 MPI similarly changed in the sense that the number of indicators were reduced from 12 to nine for the respective survey data of 2018 and 2023. SPC and OPHI provided technical assistance and guidance on recalculating these nine indicators using the 2018 HIES data to ensure their comparability with the 2023 HIES data. It is envisaged that these same nine indicators will be regularly collected in future HIES to monitor the progress of the MPI. The update of the 2018 MPI assessment (based on the 2018 HIES data) using these nine indicators is presented in Appendix 2 for ease of reference. The recalculated data of the 2018 HIES is compared with the 2023 HIES in this report to monitor multidimensional poverty and evaluate Samoa's progress.

To ensure that Samoa's MPI is designed based on international best practices, it is computed using the Alkire-Foster (AF) method, which involves counting the simultaneous deprivations or indicators faced by a person. This chapter presents this method, a description of the MPI and its properties, along with the measurement design. It concludes with a section on the data used for the analysis. It has the following three sections:

- 2.1 Alkire-Foster (AF) method
- 2.2 Measurement design
- 2.3 Data

2.1. The Alkire-Foster Method (AF Method)

Professors Sabina Alkire and James Foster developed this new method of measuring multidimensional poverty in 2010. This is done by considering if a person is deprived or non-deprived in each of the selected indicators. A person's deprivation score is then calculated by adding up the weighted indicators in which they are deprived in. A poverty threshold or cut-off is identified and set according to national context and needs. Persons below this poverty cut-off are categorised as poor while those above this threshold are categorised as being non-poor.

The MPI combines two aspects of poverty:

$$\text{MPI} = H \times A$$

Where:

H (Incidence): Poverty or Headcount Rate – incidence or the percentage of people who are multidimensionally poor.

A (Intensity): Intensity of people's poverty – the average percentage of weighted deprivations poor people experience.

MPI: The headline figure of poverty representing the share of possible deprivations experienced by the poor.

It is important to note that MPI ranges from 0–1, where 0 represents no poverty at all while 1 represent that everyone in a society is poor. Additionally, the MPI can also be disaggregated by indicator and population subgroup to identify which deprivations are highest and how these vary across population subgroups, such as age group, sex of household head, household size, highest education level completed by household head, urban/rural areas, and region to illustrate which populations are poorest and how they are poor.

2.2. Measurement design

Samoa's national MPI includes three equally weighted dimensions and nine indicators and the cut-offs to reflect its priorities as expressed in its PDS FY2021/22 – FY 2025/26 and to meet the SDG 2030 agenda.

2.2.1 Unit of identification and analysis

The unit of identification refers to the entity that is identified as poor or non-poor – usually the individual or the household. In the case of Samoa's MPI, the unit of identification is the household: the household members' information is considered together and all household members receive the same deprivation score. This acknowledges intra-household caring and sharing – for example, educated household members reading for each other, or multiple household members being affected by someone's severe health conditions. In addition, it allows the measure to include indicators that are specific to certain age groups for instance, school attendance or school lag.

The unit of analysis, meaning how the results are reported and analysed, is the individual. This means that, for instance, the headcount ratio is the percentage of people who are identified as poor, rather than the percentage of households that are identified as poor.

2.2.2 Dimensions, indicators and deprivation cut-offs

Samoa's MPI comprises of three dimensions and nine indicators together with their corresponding weights as depicted in **Figure 1** while their respective deprivation cut-offs are described in **Table 3**. The indicator choice reflects the country's context and political priorities, as well as the data available in the HIES datasets used in the analysis.

Figure 1. Structure of Samoa's MPI, 2023

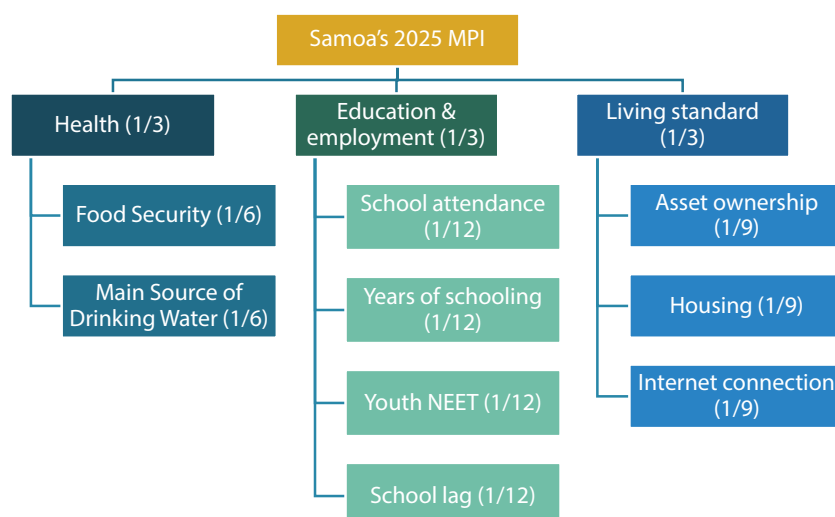


Table 3. Dimensions, indicators and deprivation cut-offs

Dimension (Weight)	Indicator	Deprivation cut-off ⁷
Health (1/3)	Food Security	A household is deprived if at least one household member ran out of food or was unable to eat healthy and nutritious food in the last 12 months because of a lack of money or other resources.
	Main Source of Drinking Water	A household is deprived if the main source of drinking water is either non-metered, well, rainwater tank, water truck or others.
Education & Employment (1/3)	School Attendance	A household is deprived if at least one household member aged 5–14 years is currently not attending school.
	Years of Schooling	A household is deprived if at least 1 household member aged 15 years and over did not complete year 8 in primary level.
	Youth NEET	A household is deprived if at least one youth (aged 15–24 years) household member who is not in employment, education or training.
	School Lag	A household is deprived if any children aged 7–17 years who is currently attending school, are 2 years behind of the class that he/ she should be according to their age.
Living Standards (1/3)	Asset Ownership	A household is deprived if it does not own a car and does not own more than one of the following assets: TV, refrigerator or washing machine.
	Housing	A household is deprived if the main roof material is thatched/ traditional or other, OR if the main floor material is gravel or other, OR if the outer wall materials corrugated iron/ improvised, open/ no walls or other material.
	Internet Connection	A household is deprived if no household members accessed the internet in the last 30-days.

Source: Based on data from 2023 HIES.

2.2.3 Weights

Samoa's MPI used nested weights by assigning equal weights to each of the three dimensions (1/3 or 33.33%) of health, education and employment, and living standards. Equal relative weights were assigned to each indicator inside these dimensions. For instance, the two indicators under the health dimension were assigned equal weights of 1/6 or 16.67%; the four indicators under the education and employment dimension were allocated the same weight of 1/12 or 8.3%, while the indicators of the final dimension of living standards was also allocated equal weights of 1/9 or 11.1%.

2.2.4 Poverty cut-off (k-value)

For comparability purposes with the 2018 HIES, the poverty cut-off was set at 34.0%, or just over one-third of the indicators. A person is considered deprived in each indicator if their achievement or deprivation score is higher than this cut-off. In the case of Samoa, a person is considered multidimensionally poor if present deprivations in 34% or more of the weighted indicators.

2.3. Data

The data used in this report to compute Samoa's 2023 MPI were the 2023 HIES, which is the most recent of a series of five surveys that have been implemented by SBS. The HIES was designed to

⁷ Refers to the minimum level of achievement that a household must have to be considered non deprived in a particular indicator

provide income, expenditure, and economic indicators at both national and regional levels. It was initiated in 2002 and has been conducted every five years, with its latest wave having been conducted in 2023.

The HIES is one of the primary sources of information for tracking poverty-related SDG indicators in Samoa, as it includes questions on demographic characteristics, education, income, expenditure, health, employment, household assets, household amenities, household consumption, and water supply, among other topics.

The focal population of this survey consists of people in urban and rural areas of the four regions in Samoa. The final responding sample for the 2023 HIES was 3,074 households. The 2021 Population and Housing Census was used as the sampling frame, and a stratified two-stage sample design was adopted where the enumeration area (EA) was first selected, then 14 households per cluster (Enumeration Area) were selected in the second stage.⁸



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⁸ Samoa 2023 Household Income and Expenditure Survey Report, pg 13.

CHAPTER 3. RESULTS

This chapter describes the results of Samoa's MPI using the 2023 HIES. First, we identify who is poor, and then we present the national MPI results, as well as incidence and intensity of multidimensional poverty in the country. We then disaggregate the MPI across urban and rural areas as well as at the regional level. National headcount ratios are presented, and finally the disaggregated results by household and individual characteristics are presented. This chapter has the following sections:

- 3.1 Samoa's National MPI – Incidence, Intensity and MPI
- 3.2 Samoa's MPI across Urban and Rural Areas
- 3.3 Samoa's MPI across Regions
- 3.4 National Uncensored and Censored Headcount Ratios
- 3.5 Performance across household characteristics

3.1. Samoa's national MPI

Table 4 shows Samoa's national MPIs for 2023 based on the 2023 HIES, together with its partial indices: the incidence of poverty (or the proportion of people identified as multidimensionally poor, H) and the intensity of poverty (or the average proportion of weighted indicators in which the poor are deprived in, A).

The incidence of multidimensional poverty in 2023 is 15.2% meaning that at least 3 out of every 20 Samoans are multidimensionally poor. Since this estimate is based on a sample, it has a margin of error. Thus, the 95% confidence interval is also presented in the table implying that we are 95% confident that the multidimensional poverty headcount ratio of the population lies between 14.6% and 15.8%.

The average intensity of poverty, which reflects the average share of deprivations each poor person experiences, was reported to be 42.8% in 2023. In other words, on average, multidimensional poor individuals experience 42.8 of the weighted indicators.

The MPI, which is the product of the incidence (H) and intensity (A) in 2023 is 0.065. Thus, multidimensionally poor people in Samoa experience 6.5% of the total possible deprivations that would be experienced if all people in Samoa were deprived in all indicators and therefore multidimensionally poor.

Table 4. MPI, incidence and intensity, 2023

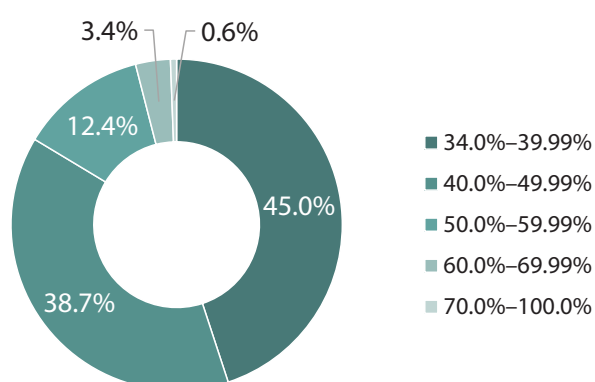
Poverty cut-off (k)	Index	Value	95 Confidence interval	
		2023		
k-value=34%	MPI	0.065	0.062	0.068
	Headcount ratio (H, %)	15.2%	14.6%	15.8%
	Intensity (A, %)	42.8%	42.4%	43.1%

Source: Based on data from 2023 HIES.

Figure 2 depicts the distribution of the multidimensionally poor population who experience different intensities of deprivations. 45.0% of all multidimensionally poor people in Samoa experience deprivations in the lowest intensity band, which is between 34.0% and 39.99% of all weighted indicators. In other words, 45.0% of the deprived individuals are only experiencing between 34.0%–39.99% intensity of the weighted indicators. About 39.0% of the multidimensionally poor experience the next higher gradient of intensity and around 12.4% of the multidimensionally poor experience the next intensity gradient of 50.0% to 59.99% of the weighted indicators. On the other end, only a small percentage or 0.6% of the poor population experience deprivations in the highest intensity band of 70+% of all weighted indicators, implying that very few poor Samoans are deprived in nearly all of the indicators.

While it will be easier for the multidimensionally poor population with low intensity to move out of poverty, represented by 83.7% (intensity 34.0%–49.99%), the greater concern are those who are deprived in 50.0% or more of the weighted indicators, represented by 16.4% of the poor population.

Figure 2. *Intensity gradient among the poor, 2023*



Source: Based on data from 2023 HIES.

3.2. Samoa's MPI across urban and rural area

Here, we investigate the levels of multidimensional poverty by rural and urban areas in Samoa.

Table 5 shows the MPI, incidence and intensity of multidimensional poverty by urban and rural areas.

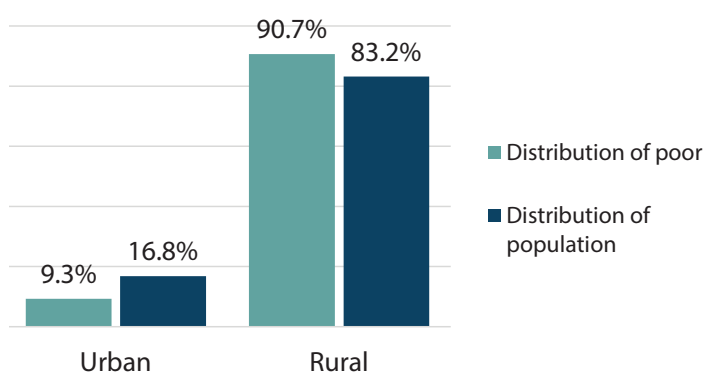
The rural poverty headcount ratio, or incidence, is almost twice as much as that of the urban area – 16.6% and 8.4%, respectively. With over 83.0% of Samoa's total population living in rural areas, this implies that the majority of the multidimensionally poor – both in terms of the proportion and number of persons – live in rural areas. Furthermore, rural areas have an MPI almost two times higher than that in urban areas.

Table 5. Multidimensional poverty by urban/rural areas, 2023

Index	Urban Area				Rural Area			
	Population share (%)	Value	Confidence interval (95%)		Population share (%)	Value	Confidence interval (95%)	
MPI	16.8	0.036	0.032	0.040	83.2	0.071	0.068	0.074
Headcount ratio (H, %)		8.4%	7.5	9.3		16.6%	15.8	17.3
Intensity (A, %)		43.1%	42.5	43.7		42.7%	42.4	43.1

Source: Based on data from 2023 HIES.

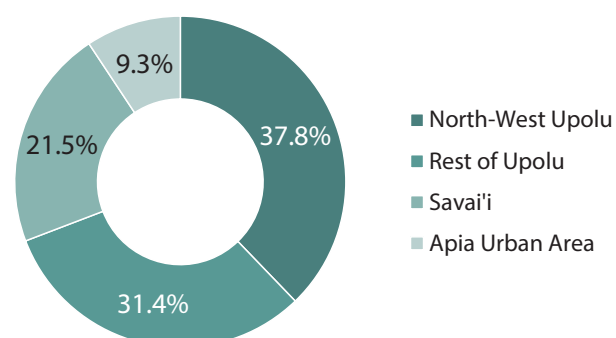
Figure 3 compares the distribution of the poor and the general population across urban and rural areas. Although just over 83% of Samoa's population resides in rural area, approximately 90.7% of the multidimensionally poor live in these areas. On the contrary, approximately 9.3% of Samoa's multidimensionally poor people reside in the urban area, which represents about 16.8% of the total population.

Figure 3. Distribution of poor and population by rural/urban areas, 2023

Source: Based on data from 2023 HIES.

3.3. Samoa's MPI across regions

Figure 4 graphically illustrates the distribution of poor people across the four regions of Samoa. The North-West Upolu region has the highest percentage of multidimensionally poor people (37.8%), followed by the Rest of Upolu region with 31.4%. As expected, the Apia Urban Area region has the lowest percentage of people living in poverty, at 9.3%, while Savai'i accounts for around one-fifth of the multidimensionally poor people in Samoa.

Figure 4. Distribution of MPI by region, 2023

Source: Based on data from 2023 HIES.

Table 6 shows the regional estimates for MPI, the incidence and intensity of multidimensional poverty. The overall pattern suggests that the Rest of the Upolu region has the highest levels of multidimensionally poor people, with an index of 0.089, an incidence of multidimensional poverty of 19.7%, and the highest intensity of poverty, with an average deprivation of 45.2%. Ironically, most of the multidimensionally poor people are located in the North-West Upolu region with 11,863 persons, followed by the Rest of Upolu region with 9,866 persons. On the other end of the spectrum, the Apia Urban Area region has the lowest MPI of 0.036, with an incidence of 8.4%, and also houses the lowest number of multidimensionally poor people, at 2,916.

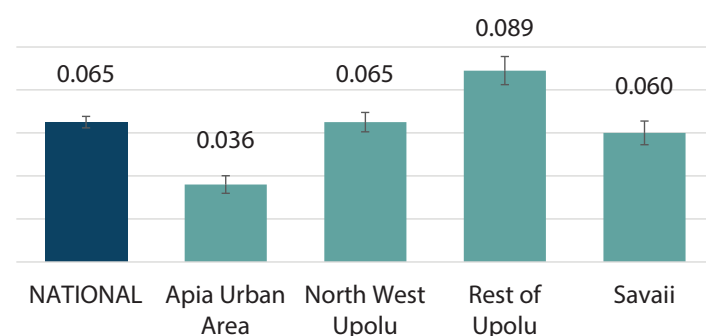
Table 6. Multidimensional poverty by region, 2023

Region	Population share (%)	MPI			Headcount ratio (H, %)			Intensity (A, %)			Number of multidimensionally poor people
		Value	Confidence interval (95%)		Value	Confidence interval (95%)		Value	Confidence interval (95%)		
AUA	16.8	0.036	0.032	0.040	8.4	7.5	9.3	43.1	42.5	43.7	2,916
NWU	36.8	0.065	0.061	0.070	15.6	14.6	16.7	41.7	41.2	42.3	11,863
ROU	24.3	0.089	0.082	0.095	19.7	18.3	21.1	45.2	44.6	45.8	9,866
Savai'i	22.1	0.060	0.055	0.066	14.7	13.4	16.1	40.9	40.3	41.5	6,738

Source: Based on data from 2023 HIES.

Figure 5 provides a graphical illustration of the MPI in each region, depicting that the Rest of the Upolu region has the highest MPI with 0.089 and is the only region with an MPI higher than the National MPI of 0.065. On the contrary, the Apia Urban Area reveals the lowest MPI of 0.036.

Figure 5. MPI by region, 2023



Source: Based on data from 2023 HIES.

Figure 6 shows the disaggregation of the national MPI by region, indicating that MPI varies considerably across all the regions.

Figure 6. MPI map by region, 2023

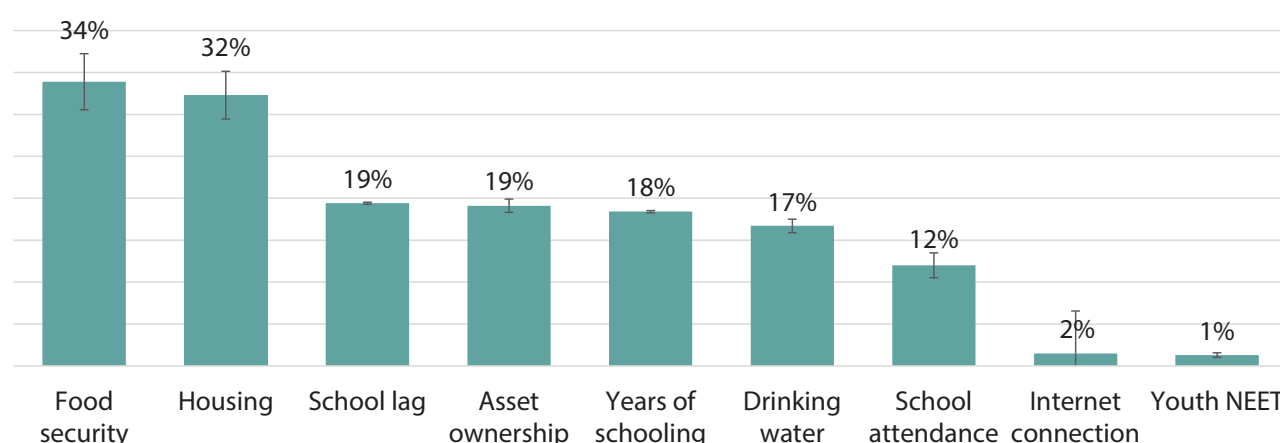


3.4. National uncensored⁹ and censored¹⁰ headcount ratios

The uncensored headcount ratio of each indicator represents the total population of Samoa, who are deprived in that particular indicator, irrespective of their poverty status. **Figure 7** presents these rates for 2023, identifying the main areas of deprivation.

As depicted in the figure below, the highest deprivations are found in food security (with 33.9% of the population deprived in this indicator), followed by housing (32.3%) and school lag (19.4%). In contrast, some indicators show lower rates of deprivation in particular youth NEET, with only 1.3% of the population in Samoa living in a household where at least one person aged 15–24 is not in education or employment or training, and without a household member who accesses the internet, with 1.5%.

Figure 7. National uncensored headcount ratios by indicator, 2023



Source: Based on data from 2023 HIES.

⁹ *Uncensored headcount ratio:* The proportion of the population (both the multidimensionally poor and non-poor) who are deprived in a given indicator. IE: it shows how deprivation in a single indicator affects the population, regardless of whether people are poor or not poor.

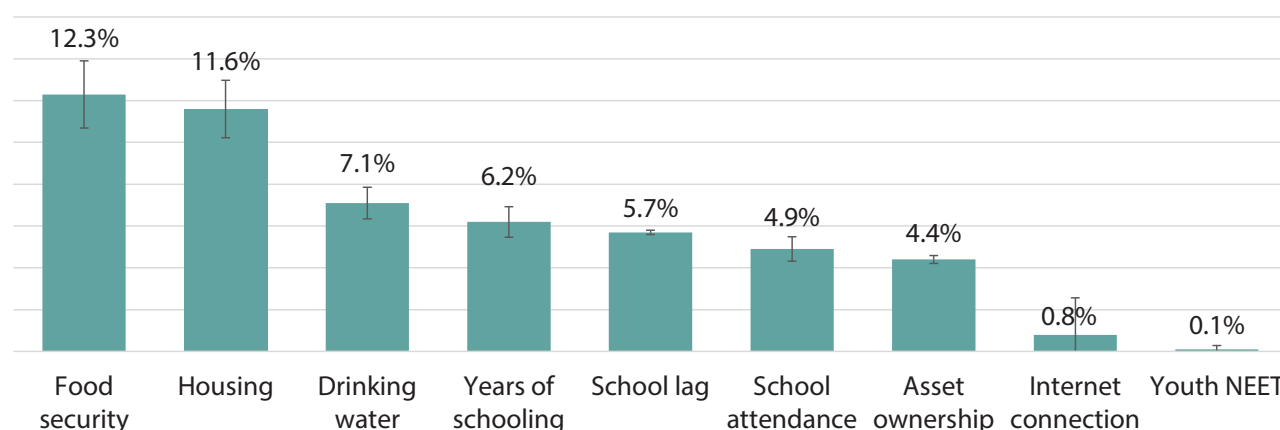
¹⁰ *Censored headcount ratio:* The proportion of the multidimensionally poor, identified using the cut-off value (k) of 34.0%, who are deprived in a given indicator. IE: it shows how deprivation in a single indicator affects the poor population.

The censored headcount ratio of an indicator represents the proportion of the population that is multidimensionally poor and also deprived in that particular indicator. In other words, to identify the population that are deprived in a given indicator, the censored headcount ratio is derived from applying the cut-off value (k) of 34% to the uncensored headcount ratio.

Figure 8 shows that the largest deprivation relates to the food security indicator; therefore, 12.3% of the population in Samoa is multidimensionally poor, and at least one household member ran out of food or was unable to eat healthy and nutritious food in the last 12 months because of a lack of money or other resources. In addition, 11.6% of households reported that the primary roofing material for their main house is either thatched/traditional or if the primary floor material is gravel/mud, or the outer wall materials are either corrugated iron, open or having no walls or other material (housing indicator) and also are multidimensionally poor.

Figure 8 further shows that the smallest deprivation is related to the indicator of youth NEET, with 0.1% individuals deprived in this indicator and living in multidimensional poverty. Also, only 0.8% of poor households reported not having a household member who accesses the internet and were multidimensionally poor.

Figure 8. National censored headcount ratios by indicator, 2023



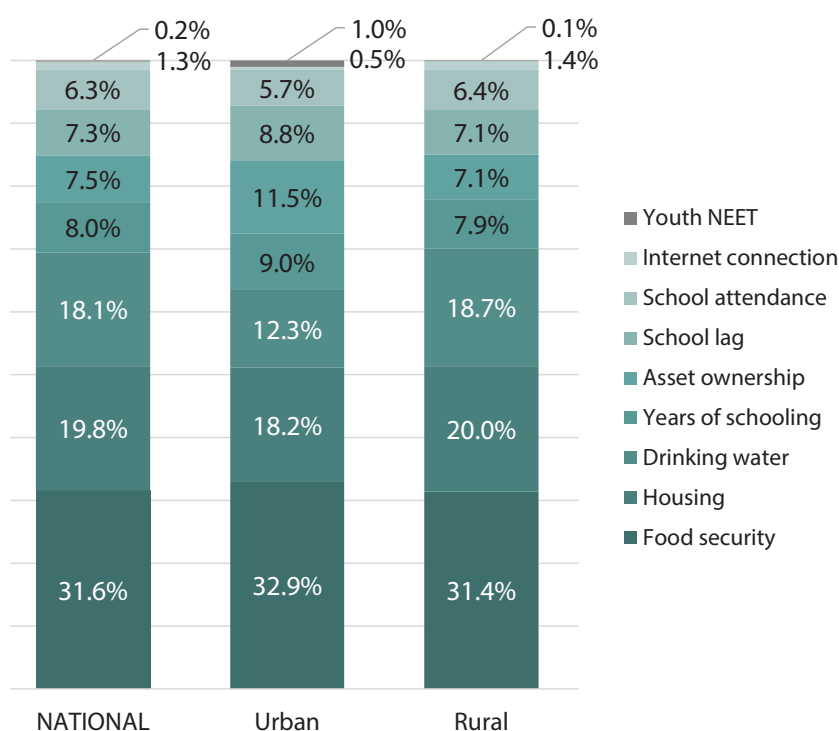
Source: Based on data from 2023 HIES.

3.5. Poverty indicator contribution

For a more in-depth view on multidimensional poverty, it is useful to see the percentage contribution of each of the 9 indicators to overall multidimensional poverty in both rural and urban areas and regions of Samoa.

3.5.1 Percentage contribution of each indicator to urban and rural MPI

Figure 9 shows the weighted percentage contribution of each indicator, depicting the composition of multidimensional poverty in both rural and urban areas relative to the national percentage contribution. It is important to note that the weights for the two indicators under the health dimension (1/6 or 16.6%) are higher than the weight of the three indicators in the living standard dimension (1/9 or 11.1%) and than the weight of the four indicators in the education and employment dimensions (1/12 or 8.3%). While all dimensions are equally weighted, the indicators carrying higher weights are expected to contribute relatively more to overall poverty.

Figure 9. Percentage contribution of each indicator to urban and rural MPI, 2023

Source: Based on data from 2023 HIES.

Figure 9 reveals that the largest contributors to the national MPI of Samoa are food security (31.6%), housing (19.8%) and main source of drinking water (18.1%). On the contrary, the lowest contributor to national poverty was youth NEET with only 0.2% and this is expected given the low percentage of people who are deprived in these indicators and who are multidimensionally poor. By dimension, the largest contributor to the MPI is the health dimension with 49.7%, while the dimensions of living standards and education and employment contributed 28.6% and 21.8%, respectively.

The figure further shows that the highest contribution to urban poverty is the deprivation in food security with 32.9%, followed by housing with 18.2%, then main source of drinking water with 12.3%. The lowest contributor to urban multidimensional poverty is internet access with 0.5%. Aggregating by dimension reveals that health is the largest contributor to multidimensional poverty in the urban area with a contribution of 45.3%. The dimensions of living standards and education and employment contributed 30.3% and 24.5%, respectively.

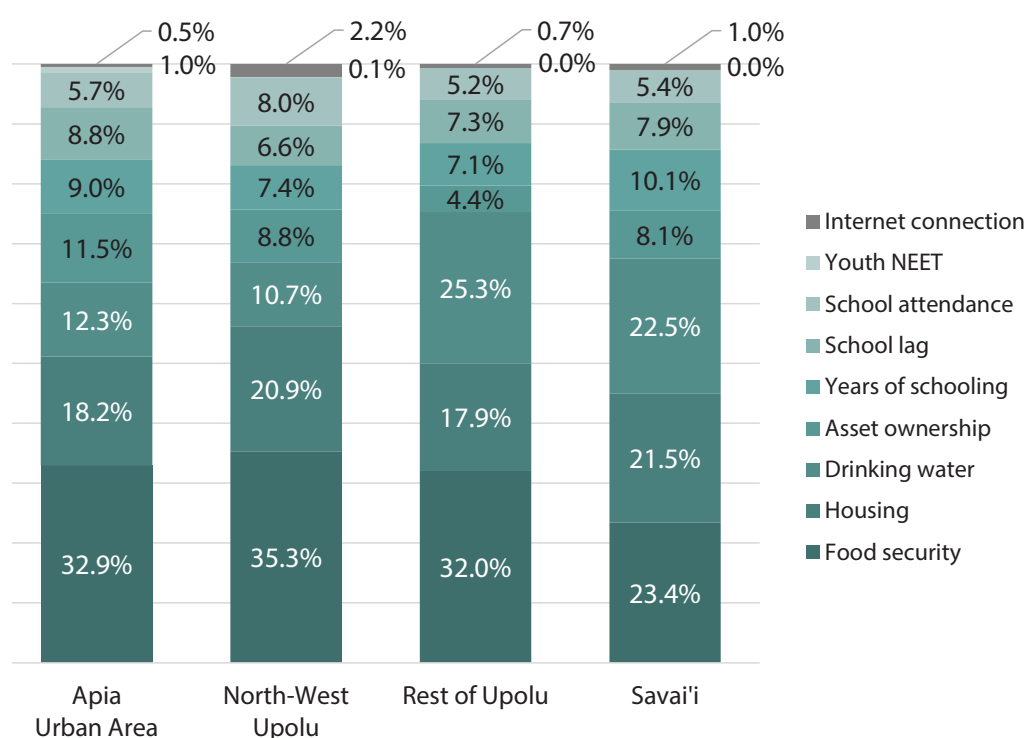
Multidimensional poverty in the rural area is composed by deprivations in food security, indicator with a contribution of 31.4% to rural poverty. The second and third largest contributors to the rural multidimensional poverty are housing with 20.0%, and the main source of drinking water with a contribution of 18.7%. Across dimensions, health contributes 50.1% to poverty in rural areas, followed by living standards with 28.4%, while education and employment contributes 24.5%.

3.5.2 Percentage contribution of each Indicator to regional MPI

Figure 10 illustrates the percentage contribution of each indicator to multidimensional poverty for each region. The composition of multidimensional poverty varies across all the regions except for the food security indicator which contributes the most to poverty across all the four regions. In the region of Apia Urban Area, the indicators of food security, housing and main source of drinking water contribute the most to poverty with contributions of 32.9%, 18.2% and 12.3%, respectively. The least contributor to poverty in the Apia Urban Area was reported to be internet connection with 0.5%. A similar trend is revealed in the North-West of Upolu region where the main drivers of poverty were also food security (35.3%), housing (20.9%) and main source of drinking water (10.7%), while the least contributor was youth NEET with 0.1%.

In the Rest of Upolu region, the main drivers of poverty were food security (32.0%), main source of drinking water (25.3%) and housing (17.9%), while internet connection contributed the least to poverty with only 0.7%. The Savai'i region also follows a similar trend to the other regions where the main contributors to poverty were identified to be food security (23.4%), main source of drinking water (22.5%) and housing (21.5%). Internet connection was also reported to have the lowest contribution to poverty, with only 1.0%.

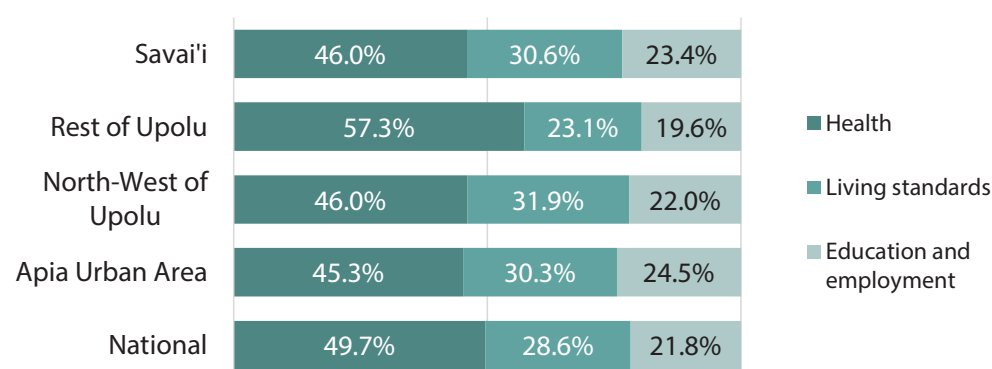
Figure 10. Percentage contributions of each indicator to regional MPI, 2023



Source: Based on data from 2023 HIES.

By dimension, all the regions revealed the same pattern where health is the main contributor, followed by living standards, and education and employment as depicted in **Figure 11**.

Figure 11. Percentage contributions of each dimension to regional MPI, 2023



Source: Based on data from 2023 HIES.

3.6. Performance across household characteristics

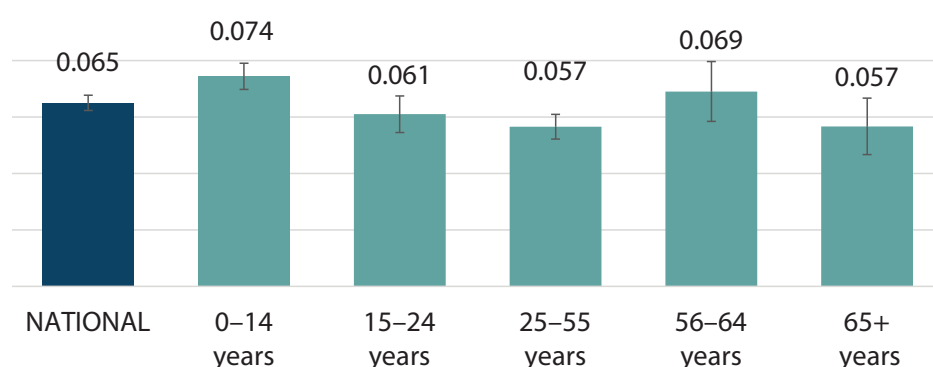
3.6.1 Multidimensional poverty by age group

As shown in **Figure 12**, children in the age group of 0–14 years represent the poorest age group, with the highest MPI of 0.074 based on data from the 2023 HIES. MPI decreases among those ages 15–55 years, then increases for those aged 55–64, and decreases once again for those aged 65 years and over.¹¹

The dependent population refers to those in the age groups of 0–14 years and 65 years and above. Interestingly, the age group of 65 years and above has an MPI of 0.057, which is significantly lower than the national MPI. One possible explanation for this is due to the fact that the data from the HIES 2023 reveals that individuals in this reference dependent population age group are still economically active hence, were still earning some form of income.¹²

As expected, the age group of 0–14 years has an MPI of 0.074 which is significantly higher than the national rate of 0.065 as those in this age group are heavily dependent on older household members.

Figure 12. Multidimensional poverty by age group, 2023



Source: Based on data from 2023 HIES.

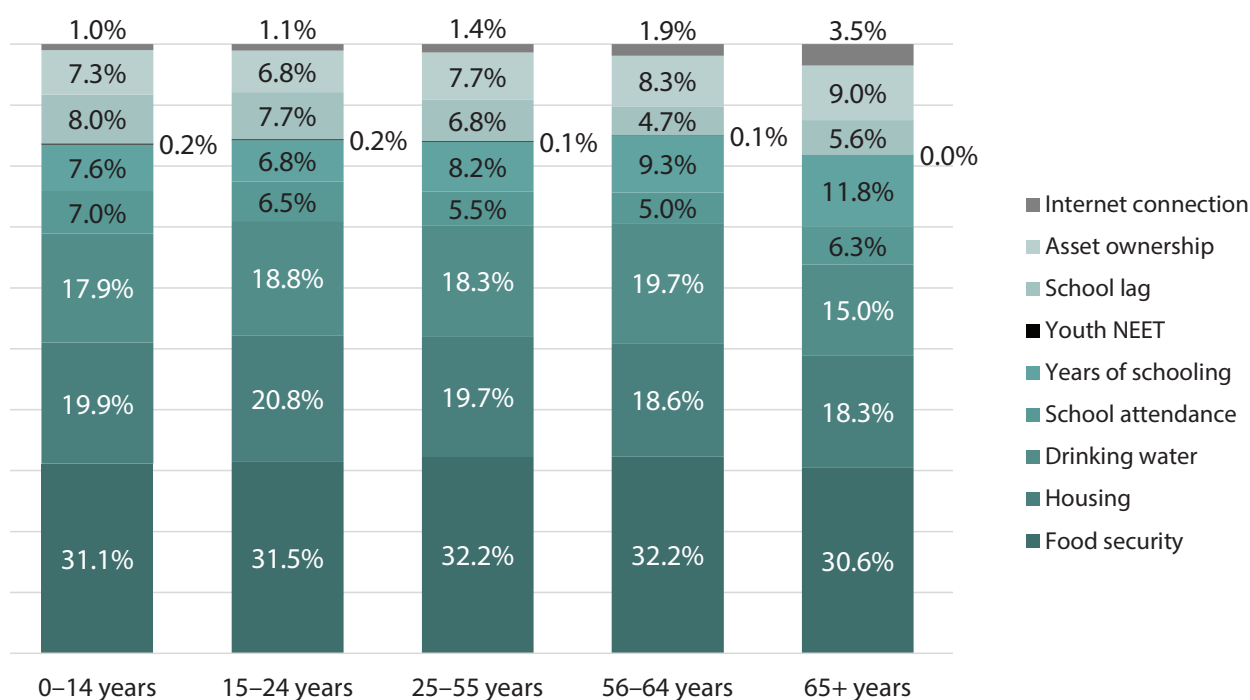
¹¹ Children aged 0–14 years represent 38.6% of the population. The population share of the age groups 15–24, 25–55, 56–64 and 65+ are equal to 16.2%, 33.0%, 6.5% and 5.8% respectively.

¹² Samoa 2023 Household Income and Expenditure Report, pg 170.

Contribution of each indicator to MPI by age group

Figure 13 extracted from the results of the survey shows that food security had the highest contribution to the MPI across all age groups, with the highest being in the age groups of 25–55 years and 56–64 years with 32.2%. Housing is next main contributor, with the highest reported for those in the age group of 15–24 years with 20.8%.

Figure 13. Percentage contribution of each indicator to MPI age group, 2023

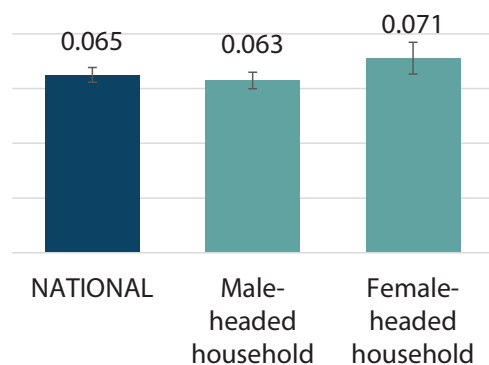


Source: Based on data from 2023 HIES.

3.6.2 Multidimensional poverty by sex of household head

Figure 14 highlights differences between female-headed household and male-headed households in terms of the MPI.¹³ It shows that male-headed households are less likely to be multidimensionally poor compared to female-headed households, although the differences are not significant, with indices of 0.063 and 0.071 respectively.

Figure 14. Multidimensional poverty by sex of household head, 2023



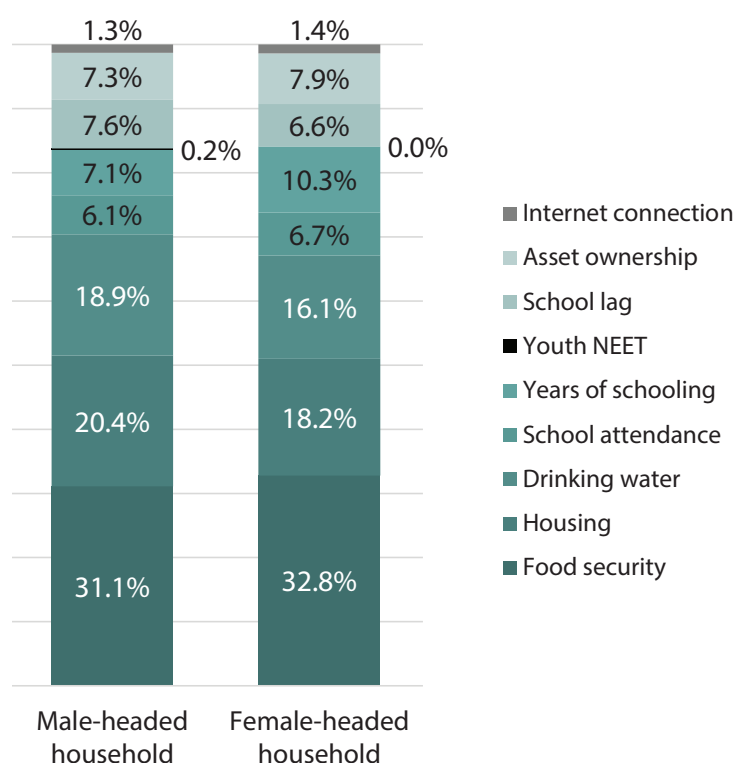
Source: Based on data from 2023 HIES.

¹³ HIES 2023 reveals that 75.2% of households in Samoa are headed by a male while 24.8% are headed by a female.

Contribution of each indicator to MPI by sex of household head

Figure 15 reveals that food security is also the highest contributor to MPI for households with male and female heads, with 32.8% and 31.1% for female and male household heads respectively. For housing being the second highest contributor to MPI, the above scenario is reversed where male-headed household have a slightly higher contribution to MPI than their female counterparts.

Figure 15. Percentage contribution of each indicator to MPI by sex of household head, 2023

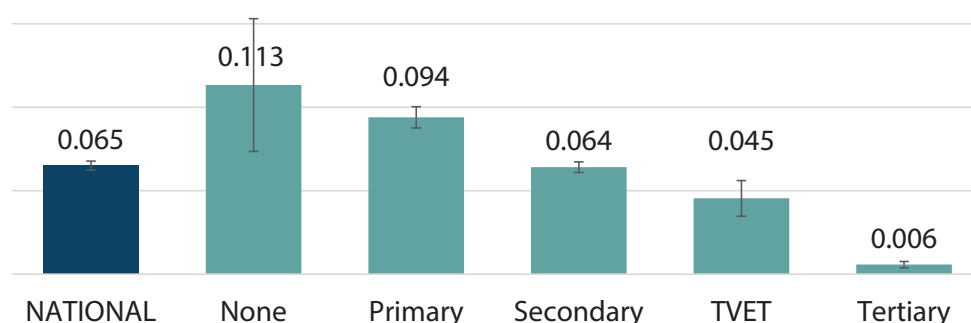


Source: Based on data from 2023 HIES.

3.6.3 Multidimensional poverty by highest education level completed by household head

Figure 16 shows multidimensional poverty incidence by highest completed level of education of the household head. The figure reveals that higher the level of education of the household head, the lower the incidence of multidimensional poverty. This implies the inverse relationship between multidimensional poverty and the education level of the household head.

Figure 16. Multidimensional poverty by highest education level completed of household head, 2023



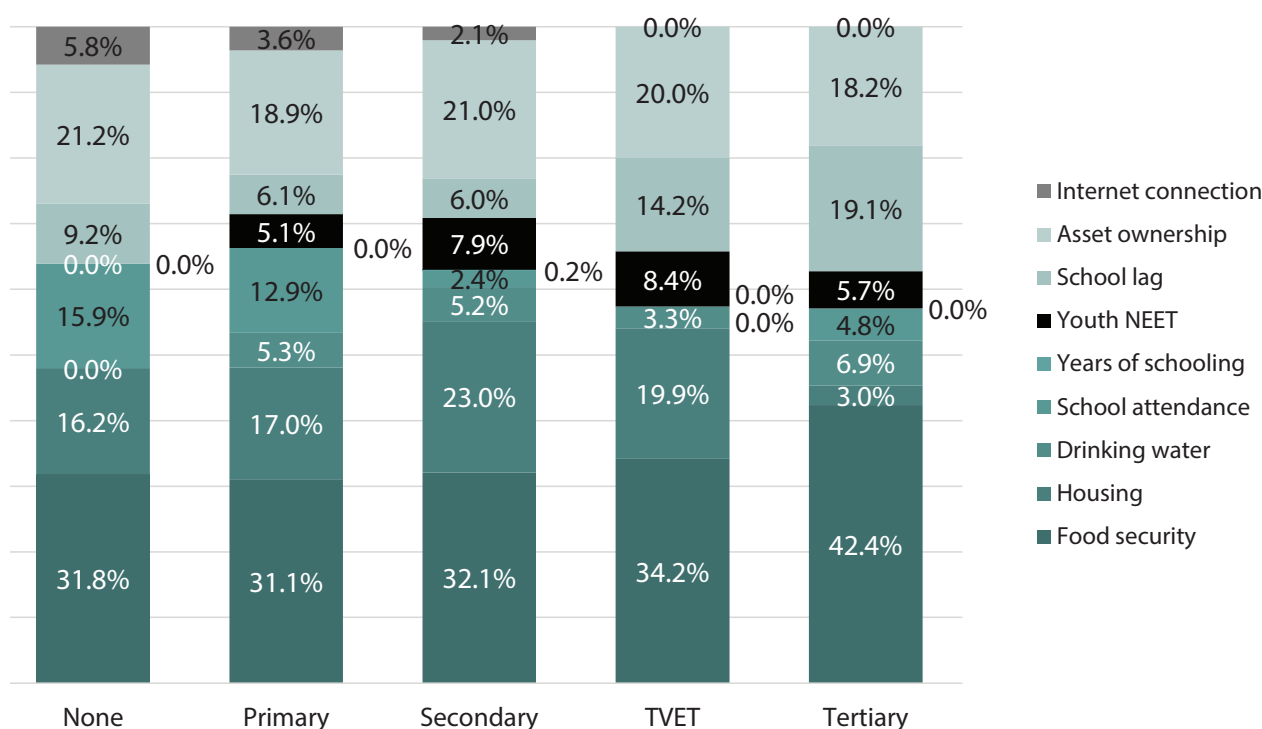
Source: Based on data from 2023 HIES.

Note: TVET – Technical and Vocational Education and Training

Contribution of each Indicator to MPI by highest education level completed of household head

Figure 17 extracted from the results of the survey shows that food security had the highest contribution to the MPI across all age groups. Specifically, food security contributed the most (42.4%) to the MPI of household heads who have completed tertiary education, 34.2% who have completed TVET, 32.1% who have completed secondary education level, 31.8% and 31.1% who have never completed any level of education and those who have completed only primary education level respectively.

Figure 17. Percentage contribution of each indicator to MPI by highest education level completed of household head, 2023



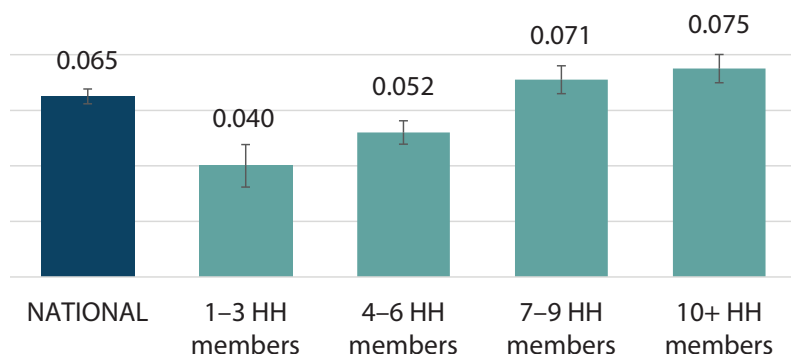
Source: Based on data from 2023 HIES.

3.6.4 Multidimensional poverty by household size

Disaggregating the MPI further by household size makes for another interesting household analysis. **Figure 18** depicts the disaggregation of the MPI by household size with four groups with; the lowest group formed by households with 1–3 members and the highest group having more than nine members. It is clear from the figure below that as the household size increase, MPI increase. This indicates a positive correlation between multidimensional poverty and larger household sizes. Furthermore, poverty is significantly higher in households having ten or more members than in those with one to three members.¹⁴ Based on the 2023 HIES, the average household size for Samoa was estimated to be 6.5 persons (Samoa 2023 Household Income and Expenditure Report, pg 2).

¹⁴ Out of the total population in Samoa, 6.1% live in household with one to three members. In turn, 26.5% live in households with four to six members, 30.9% with seven to nine members, and 36.4% with more than nine household members.

Figure 18. Multidimensional poverty by household size, 2023

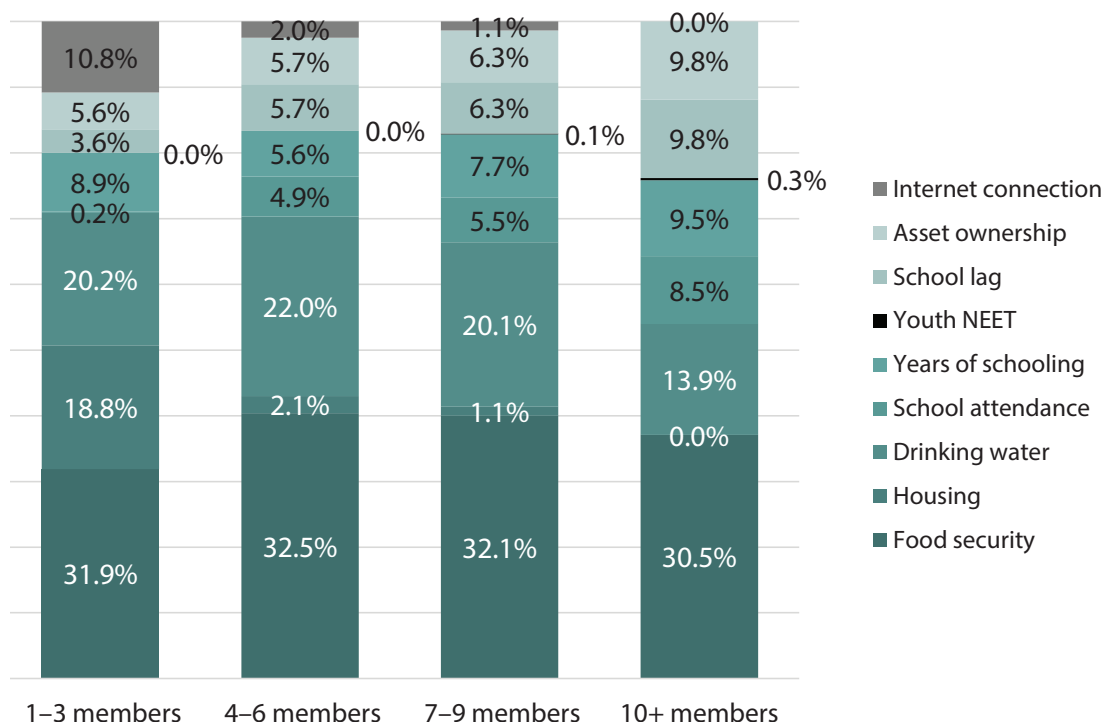


Source: Based on data from 2023 HIES.

Contribution of each Indicator to MPI by household size

Figure 19 depicts that food security had the highest contribution to the MPI across all household sizes, with 32.5% for household with 4–6 members, 32.1% for 7–9 household members, 31.9% for 1–3 household members and the lowest for those with 10 or more household members with 30.5%.

Figure 19. Percentage contribution of each indicator to MPI by household size, 2023



Source: Based on data from 2023 HIES.

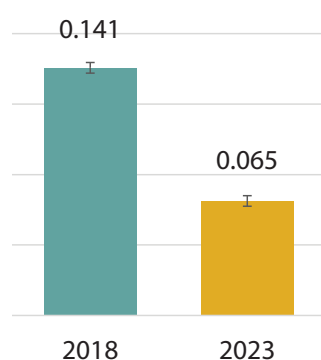
3.7. Changes over time of multidimensional poverty, 2018–2023

This is the second MPI report prepared by SBS, with the first being in 2018 based on analysis of the 2018 HIES data. This section looks at how multidimensional poverty has changed over these few years using the data from the 2018 and 2023 HIES and adopting the same set of nine indicators.

3.7.1 MPI, incidence and intensity, 2018 and 2023

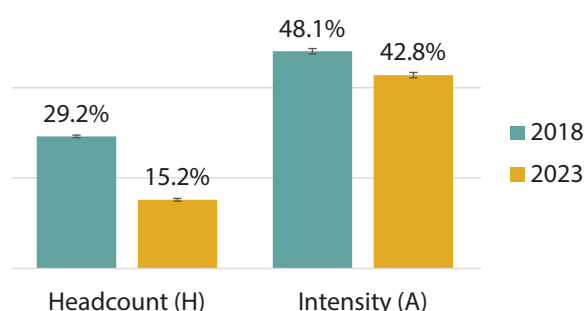
It is evident from **Figure 20** that multidimensional poverty decreased significantly between 2018 and 2023. Most impressively, the MPI has a relative reduction of more than 50%, decreasing from 0.141 to 0.065. **Figure 21** reveals that the headcount ratio, or incidence of poverty (H), decreased from 29.2% in 2018 to 15.2% in 2023, a reduction of almost 14 percentage points. The intensity of poverty (A) reduced between 2018 and 2023, from 48.1% and 42.8%, with an absolute change of 5.3 percentage points.

Figure 20. Multidimensional poverty, 2018 and 2023



Source: Based on data from 218 and 2023 HIES.

Figure 21. Multidimensional poverty incidence and intensity, 2018 and 2023

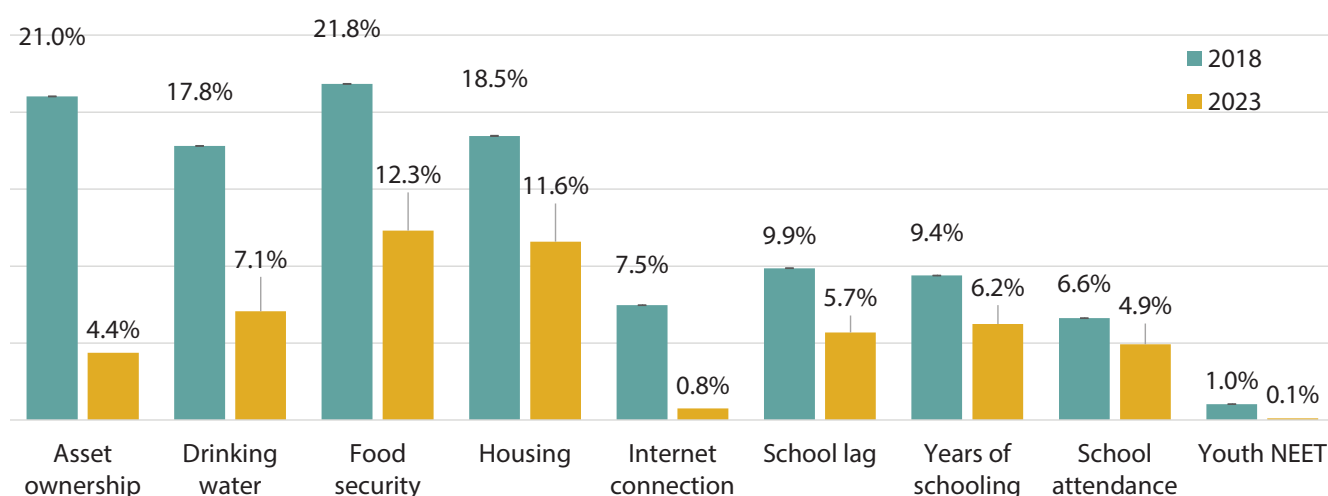


Source: Based on data from 2018 and 2023 HIES.

3.7.2 Censored headcount ratio by indicator, 2018 and 2023

As mention above, MPI has decreased between 2018 and 2023 hence, it is essential to identify which indicators were the main drivers of this reduction. **Figure 22** presents the censored headcount ratios per year and indicators.

All nine indicators have shown reductions between 2018 and 2023. The reductions were observed in the indicators of asset ownership, which decreased by 16.6 percentage points, drinking water (10.7 percentage points), and food security (9.6 percentage points). All nine indicators included in the MPI presented improvements, and most notably the indicators of asset ownership, drinking water and food security.

Figure 22. Censored headcount ratio by indicator, 2018 and 2023

Source: Based on data from 2018 and 2023 HIES.

3.7.3 MPI, headcount ratio and intensity by region, 2018 and 2023

Presented in **Table 7** below are the changes in MPI, incidence and intensity between 2018 and 2023 for all the regions of Samoa. All the regions revealed a decrease in their respective MPIs, headcount ratios and intensity between 2018 and 2023. Conspicuously, the region of Savai'i reveals the highest reduction in MPI with 0.153 points, headcount ratio with 28.3% and intensity with 8.7%.

Table 7. Changes in MPI, headcount ratio and intensity by region, 2018 and 2023

Region		Apia Urban Area		North-West Upolu		Rest of Upolu		Savai'i	
		2018	2023	2018	2023	2018	2023	2018	2023
MPI	Value	0.047	0.036	0.114	0.065	0.185	0.089	0.213	0.060
	95% Confidence Interval	0.042	0.032	0.109	0.061	0.178	0.082	0.206	0.055
		0.051	0.040	0.119	0.070	0.193	0.095	0.221	0.066
Headcount ratio (H,%)	Value	10.2	8.4	24.2	15.6	38.7	19.7	43.0	14.7
	95% Confidence Interval	9.3	7.5	23.2	14.6	37.3	18.3	41.6	13.4
		11.2	9.3	25.2	16.7	40.2	21.1	44.4	16.1
Intensity (A,%)	Value	45.5	43.1	47.1	41.7	47.9	45.2	49.6	40.9
	95% Confidence Interval	44.7	42.5	46.6	41.2	47.4	44.6	49.1	40.3
		46.5	43.7	47.6	42.3	48.4	45.8	50.1	41.5

Source: Based on data from 2018 and 2023 HIES.

3.7.4 Uncensored and censored headcount ratios by indicator, 2018 and 2023

Depicted in **Table 8** are the changes in both uncensored and censored headcount ratios for 2018 and 2023 for each of the nine indicators. Six indicators reported a decrease in their respective uncensored headcount ratios (food security, school attendance, youth NEET, school lag, asset ownership and internet connection) between 2018 and 2023, with the highest reduction reported in the indicator of asset ownership with 13.5 percentage points. The other three

indicators of housing, years of schooling and school attendance all reported increases. For censored headcount ratios, all the indicators reported decreases with asset ownership revealing the highest reduction with 16.6 percentage points.

Table 8. *Uncensored and censored headcount ratios, 2018 and 2023*

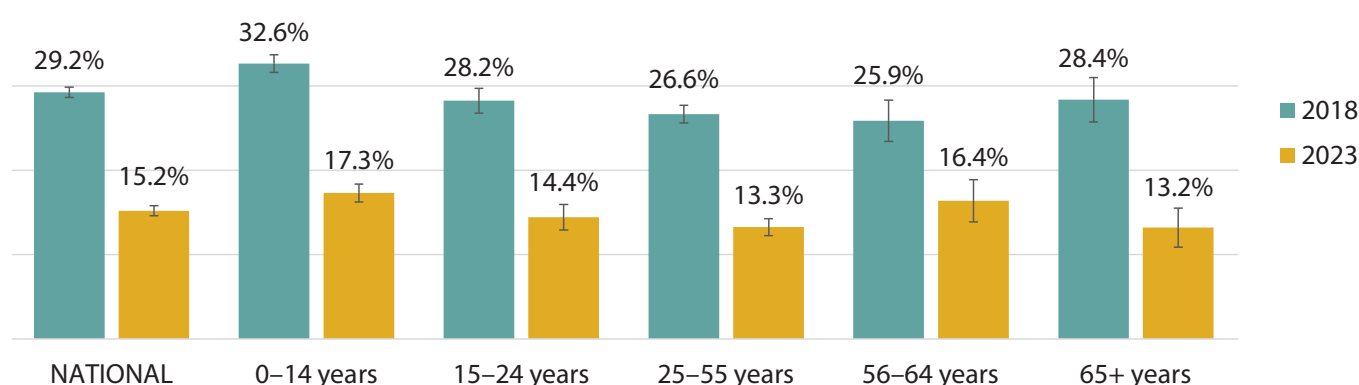
Indicators	2018		2023	
	Uncensored headcount ratio	Censored headcount ratio	Uncensored headcount ratio	Censored headcount ratio
Food security	42.7	21.9	33.9	12.3
Main source of drinking water	29.7	17.8	16.7	7.1
School attendance	11.1	6.6	12.0	4.9
Years of schooling	17.2	9.4	18.4	6.2
Youth NEET	2.1	1.0	1.3	0.1
School lag	22.2	9.9	19.4	5.7
Asset ownership	32.6	21.0	19.1	4.4
Housing	31.3	18.5	32.3	11.6
Internet connection	11.4	7.5	1.5	0.8

Source: Based on data from 2018 and 2023 HIES.

3.7.5 Incidence of multidimensional poverty by age group

Looking at the demographic characteristics of the population using age group as a variable, **Figure 23** reveals that the incidence of poverty for all the 5 different age groups have improved drastically, especially in the age group of 65 years and above with a reduction of 53.5% (absolute change of 15.2 percentage points) followed by the age group of 25–55 years with a reduction of 50.0% (absolute change of 13.3 percentage points). The age group of 56–64 years old exhibit the lowest reduction in the incidence of multidimensional poverty with 36.7% or an absolute change of 9.5 percentage points.

Figure 23. *Incidence of multidimensional poverty by age group, 2018 and 2023*



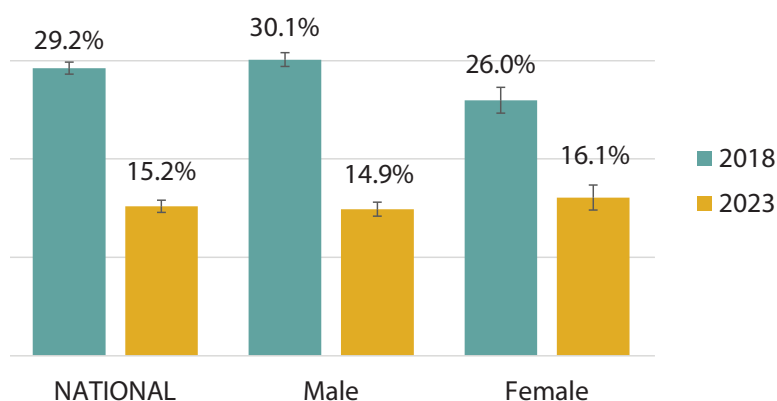
Source: Based on data from 2018 and 2023 HIES.

3.7.6 Incidence of multidimensional poverty by sex of household head

As indicated in **Figure 24**, households headed by females have a higher incidence of multidimensional poverty compared to male-headed households in 2023 while in 2018, households headed by males had a much higher incidence than their female counterpart.

Furthermore, both male and female household heads reported reductions in the incidence of multidimensional poverty between 2018 and 2023, with 15.2 percentage points reported by males and 9.9 percentage points by females.

Figure 24. Incidence of multidimensional poverty by sex of household head, 2018 and 2023

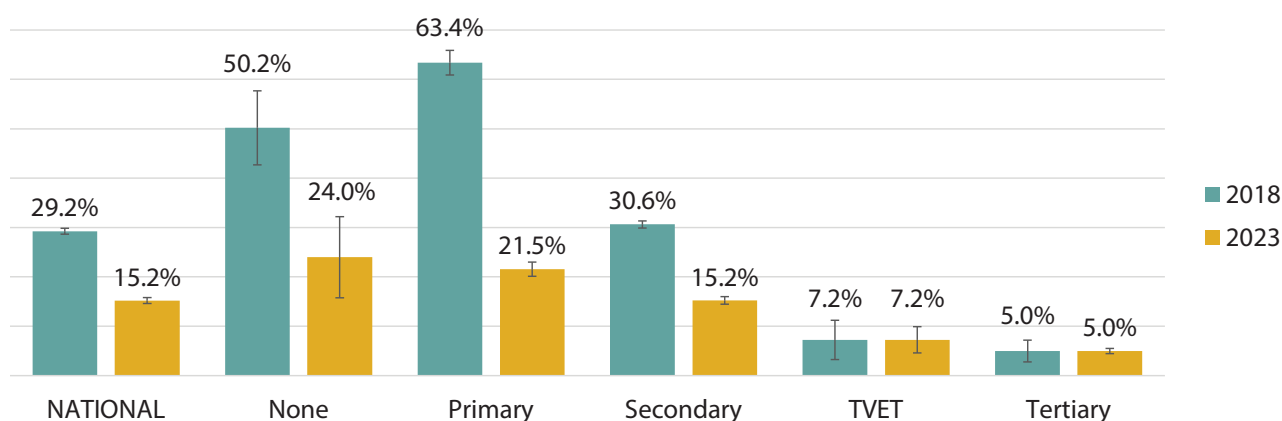


Source: Based on data from 2018 and 2023 HIES.

3.7.6 Incidence of multidimensional poverty by highest education level completed

Figure 25 depicts a downward trend in the incidence of poverty by highest education level completed for the head of the household in both years. The largest reduction was observed in the group of households whose head has completed primary education, with a reduction of 41.3 percentage points between 2018 and 2023. On the contrary, those with the highest education level completed of TVET reported an increase of 3.1 percentage points.

Figure 25. Incidence of poverty by highest education level completed, 2018 and 2023



Source: Based on data from 2018 and 2023 HIES.

Note: TVET – Technical and Vocational Education and Training



CONCLUSION AND RECOMMENDATIONS

This MPI report is a testament to Samoa's endeavours to produce a different approach to measuring poverty in addition to conventional monetary poverty measures to ensure that no one is left behind. It is intended to complement existing monetary poverty measures, namely the FPL and the BNPL. Both measures provide an important source of information for public policy. Samoa's national MPI, in particular, can help to monitor progress towards meeting various sector plans and key priority areas in the Pathway for the Development of Samoa FY 2021/22 – FY 2025/26 with the vision of fostering social harmony, safety and freedom for all. In addition to this, the MPI of 0.065, a reduction of 54.0% from 0.141 in 2018, will assist Samoa to compile, monitor and meet the Sustainable Development Goal 2030 specifically target 1.2 by halving the proportion of men, women and children of all ages living in poverty in all its dimensions.

To be identified as poor a person must be deprived in more than one-third of the weighted indicators. The MPI of 0.065 indicates that people facing hardship in Samoa experience 6.5% of the deprivations that would be experienced if all people in Samoa were deprived in all indicators. The largest contribution to national poverty were the indicators of food security, followed by housing and main source of drinking water.

Finally, this section presents some recommendations based on the outcome of the analysis of this report:

- 1. Use the MPI to measure and monitor poverty reductions and the achievements of SDG 1.2.2.** It is recommended to continuously use the MPI (which combines the percentage of poor people (H) with the intensity of poverty (A)) as the overarching headline figure of poverty to measure SDG indicator 1.2.2. This measure – which is sensitive to improvements in either intensity or incidence – can be used to determine and declare changes over time. The next HIES will be conducted by SBS in 2028 thus, the same nine indicators should be used to monitor and evaluate MPI progress over time.
- 2. Promote the use of MPI alongside monetary poverty for efficient resource allocation.** Allocation of public sector resources should be informed by MPI as well as existing monetary poverty levels (food poverty and basic needs poverty lines).¹⁵ Although the MPI and consumption poverty measures differ, both should be used as complementary tools to guide policy. In addition, the MPI provide a road map to define which dimensions and indicators should be prioritised, and how those differ by region, area and household characteristics (as presented in this report). Therefore, this information can guide policy decisions on which policies, programmes and activities to prioritise in each of the regions and groups, to guarantee the most efficient use of resources. Additionally, the MPI provides an authoritative measure to compare regions and it can be disaggregated by dimension and indicator to show how poverty has changed over time.
- 3. Have a multisectoral approach.** The report has highlighted the overlapping deprivations of certain indicators. As such, a multisectoral approach is needed to ensure that the relevant

¹⁵ See Samoa monetary poverty assessment 2023 for a more detailed discussion on the poverty lines for Samoa.

sectors of Samoa are well informed. Alternatively, resources can also be allocated by sector to combat poverty. This approach will in turn reinforce and strengthen the implementation of relevant sector plans, the Pathway for the Development of Samoa FY 2021/22 – FY 2025/26, and SDG compilation and monitoring.

- 4. Create policy interventions to incentivise the completion of secondary education and to encourage everyone to attend formal education.** Household heads who have never completed any level of education and have completed only primary level of education are the most vulnerable, both having MPIs higher than the national MPI, as presented in **Figure 14**. Hence, education policies should focus on compulsory education, including Early Childhood Education, and promoting the completion of secondary level as this is the main, if not the only, pathway to achieve higher education levels.
- 5. Create policy interventions to address rural deprivations.** Evident throughout the report, the rural area, especially the Rest of Upolu region, show high incidence of multidimensional poverty (19.7% or 9,866 persons) as presented in **Table 6**. Based on this, policy interventions should be designed to ensure that the necessary resources and assistance are tailored towards the rural area, prioritising the Rest of Upolu region.



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APPENDIX 1. ADDITIONAL TABLES

Table 9. Incidence of multidimensional poverty by urban/rural area, 2023

Area	Headcount ratio	95% Confidence interval	
National	15.2%	14.58	15.81
Urban Area	8.4%	7.47	9.34
Rural Area	16.6%	15.85	17.29

Table 10. Incidence of multidimensional poverty by region, 2023

Region	Headcount ratio	95% Confidence interval	
National	15.2%	14.58	15.81
Apia Urban Area	8.4%	7.47	9.34
North-West Upolu	15.6%	14.56	16.67
Rest of Upolu	19.7%	18.26	21.09
Savai'i	14.7%	13.39	16.09

Table 11. Incidence of multidimensional poverty by sex of household head, 2023

Sex	Headcount ratio	95% Confidence interval	
National	15.2%	14.58	15.81
Male	14.9%	14.19	15.61
Female	16.1%	14.81	17.35

Table 12. Incidence of multidimensional poverty by highest education level completed of household head, 2023

Region	Headcount ratio	95% Confidence interval	
National	15.2%	14.58	15.81
None	24.0%	15.74	32.17
Primary	21.5%	20.11	22.98
Secondary	15.2%	14.44	15.97
TVET	11.3%	8.69	13.99
Tertiary	1.6%	1.04	2.07

Table 13. Incidence of multidimensional poverty by age group, 2023

Age group	Headcount ratio	95% Confidence interval	
National	15.2%	14.58	15.81
0–14 years	17.3%	16.23	18.35
15–24 years	14.4%	12.91	15.93
25–55 years	13.3%	12.24	14.27
56–64 years	16.4%	13.88	18.87
65+ years	13.2%	10.88	15.49

Table 14. Incidence of multidimensional poverty by household size, 2023

Households size	Headcount ratio	95% Confidence interval	
1–3 Household members	9.3%	7.6%	11.0%
4–6 Household members	12.1%	11.1%	13.1%
7–9 Household members	16.0%	14.9%	17.1%
10+ Household members	18.1%	16.9%	19.3%

Table 15. Percentage contribution of each indicator to urba/rural MPI, 2023

Indicator	National	Urban	Rural
Food security	31.6	32.9	31.4
Access to water	18.1	12.3	18.7
School attendance	6.3	5.7	6.4
Years of schooling	8.0	9.0	7.9
Youth NEET	0.2	1.0	0.1
School lag	7.3	8.8	7.1
Asset ownership	7.5	11.5	7.1
Housing	19.8	18.2	20.0
Internet access	1.3	0.5	1.4

Table 16. *Percentage contribution of each indicator to regional MPI, 2023*

Indicator	Apia Urban Area	North-West Upolu	Rest of Upolu	Savai'i
Food security	32.9	35.3	32.0	23.4
Access to water	12.3	10.7	25.3	22.5
School attendance	5.7	8.0	5.2	5.4
Years of schooling	9.0	7.4	7.1	10.1
Youth NEET	1.0	0.1	0.0	0.0
School lag	8.8	6.6	7.3	7.9
Asset ownership	11.5	8.8	4.4	8.1
Housing	18.2	20.9	17.9	21.5
Internet access	0.5	2.2	0.7	1.0

APPENDIX 2. 2018 MPI REVISED TABLES (9 INDICATORS)

Based on the analysis of the 2018 HIES dataset.

Table 17. Incidence (H), intensity (A) and multidimensional Poverty Index (MPI), 2018

Poverty cut-off (k)	Index	Value	95% Confidence interval	
k-value=34%	MPI	0.141	0.138	0.144
	Headcount ratio (H)	29.2%	28.6%	29.8%
	Intensity (A)	48.1%	47.8%	48.4%

Table 18. Multidimensional poverty by urban/rural areas, 2018

Index	Urban				Rural			
	Population share (%)	Value	95 % Confidence interval		Population Share (%)	Value	95 % Confidence interval	
MPI	19.2	0.047	0.042	0.051	80.8	0.163	0.159	0.166
Headcount ratio (H)		10.2	9.3	11.2		33.7	33.0	34.5
Intensity (A)		45.6	44.5	46.5		48.3	47.9	48.6

Table 19. Multidimensional poverty by region, 2018

Region	Population share (%)	MPI			Headcount ratio (H, %)			Intensity (A, %)			Number of multidimensionally poor people
		Value	95 % Confidence interval		Value	Confidence interval (95%)		Value	95 % Confidence interval		
AUA	6.7	0.047	0.042	0.051	10.2	9.3	11.2	45.5	44.7	46.5	3,520
NWU	28.7	0.114	0.109	0.119	24.2	23.2	25.2	47.1	46.6	47.6	15,089
ROU	30.7	0.185	0.178	0.193	38.7	37.3	40.2	47.9	47.4	48.4	16,120
SAV	33.9	0.213	0.206	0.221	43.0	41.6	44.4	49.6	49.1	50.1	17,799

Table 20. Distribution of MPI by region, 2018

Region	%
Apia Urban Area	6.7
North-West Upolu	28.7
Rest of Upolu	30.7
Savai'i	33.9

Table 21. National uncensored headcount ratios by indicator, 2018

Indicator	Ratio	95% Confidence interval	
Food security	42.7	42.7	42.7
Access to water	29.7	29.7	29.7
School attendance	11.1	11.1	11.1
Years of schooling	17.2	17.2	17.2
Youth NEET	2.1	2.1	2.1
School lag	22.2	22.2	22.2
Asset ownership	32.6	32.6	32.6
Housing	31.3	31.2	31.3
Internet access	11.4	11.3	11.4

Table 22. National censored headcount ratios by indicator, 2018

Indicator	Ratio	95% Confidence interval	
Food security	21.8	21.8	21.8
Access to water	17.8	17.8	17.8
School attendance	6.6	6.6	6.6
Years of schooling	9.4	9.4	9.4
Youth NEET	1.0	1.0	1.0
School lag	9.9	9.8	9.9
Asset ownership	21.0	21.0	21.0
Housing	18.5	18.4	18.5
Internet access	7.5	7.5	7.5

Table 23. Percentage contribution of each indicator by urban/rural MPI, 2018

Indicator	National	Urban	Rural
Food security	25.9	30.0	25.6
Access to water	21.1	20.3	21.2
School attendance	3.9	4.9	3.9
Years of schooling	5.6	4.0	5.7
Youth NEET	0.6	0.8	0.6
School lag	5.8	9.2	5.6
Asset ownership	16.6	15.9	16.7
Housing	14.6	11.2	14.8
Internet access	5.9	3.6	6.1

Table 24. Percentage contribution of each indicator to regional MPI, 2018

Indicator	Apia Urban Area	North-West Upolu	Rest of Upolu	Savai'i
Food security	30.0	26.2	24.1	26.4
Access to water	20.3	18.3	24.1	20.9
School attendance	4.9	5.2	3.8	2.8
Years of schooling	4.0	5.7	4.4	6.7
Youth NEET	0.8	0.7	0.7	0.4
School lag	9.2	5.8	6.2	5.0
Asset ownership	15.9	17.3	16.5	16.3
Housing	11.2	15.6	14.9	14.1
Internet access	3.6	5.2	5.3	7.4

Table 25. Multidimensional poverty by age group, 2018

Indicator	Ratio	95% Confidence interval		Population share (%)
National	0.141	0.138	0.144	100%
0–14 years	0.158	0.153	0.163	38%
15–24 years	0.134	0.127	0.141	17%
25–55 years	0.128	0.123	0.133	33%
56–64 years	0.124	0.112	0.136	6%
65+ years	0.137	0.124	0.150	6%

Table 26. Multidimensional poverty by sex of household head, 2018

Indicator	Ratio	95% Confidence interval		Population share (%)
National	0.141	0.138	0.144	100%
Male-headed household	0.145	0.141	0.148	79%
Female-headed household	0.125	0.119	0.132	21%

Table 27. Multidimensional poverty by highest level completed by household head, 2018

Indicator	Ratio	95% Confidence interval		Population share (%)
National	0.141	0.138	0.144	100%
None	0.272	0.228	0.316	1%
Primary	0.302	0.290	0.315	7%
Secondary	0.147	0.144	0.151	76%
TVET	0.128	0.106	0.150	2%
PSET	0.033	0.023	0.043	3%
Tertiary	0.021	0.017	0.024	12%

Table 28. Multidimensional poverty by household size, 2018

Indicator	Ratio	95% Confidence interval		Population share (%)
National	0.141	0.138	0.144	100%
1–3 Household members	0.109	0.098	0.120	6%
4–6 Household members	0.123	0.117	0.129	27%
7–9 Household members	0.149	0.143	0.155	31%
10+ Household members	0.152	0.147	0.157	36%

Table 29. Incidence of multidimensional poverty by urban/rural areas, 2018

Area	Headcount ratio	95% Confidence interval		Population share (%)
National	29.20%	28.63	29.83	100%
Urban Area	10.20%	9.26	11.18	19%
Rural Area	33.70%	33.02	34.45	81%

Table 30. Incidence of multidimensional poverty by region, 2018

Region	Headcount ratio	95% Confidence interval		Population share (%)
National	29.2%	0.29	0.30	100%
Apia Urban Area	10.2%	0.09	0.11	19%
North-West Upolu	24.2%	0.23	0.25	35%
Rest of Upolu	38.7%	0.37	0.40	23%
Savai'i	43.0%	0.42	0.44	23%

Table 31. Censored headcount ratio by sex of household head, 2018

Sex	Headcount ratio	95% Confidence interval		Population share (%)
National	29.20%	28.63	29.83	100%
Male	29.00%	27.21	30.81	79%
Female	23.50%	20.17	26.77	21%

Table 32. Incidence of multidimensional poverty by highest education level completed of household head, 2018

Highest education level completed	Headcount ratio	95% Confidence interval		Population share (%)
National	29.23%	28.63	29.83	100%
None	50.17%	42.67	57.67	1%
Primary	63.38%	60.90	65.86	7%
Secondary	30.61%	29.89	31.32	76%
PSET	23.98%	20.00	27.95	2%
TVET	7.23%	5.02	9.44	3%
Tertiary	4.96%	4.12	5.80	12%

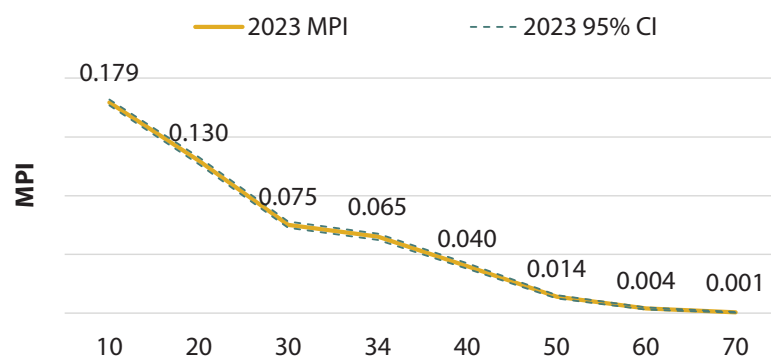
Table 33. Incidence of multidimensional poverty by household size, 2018

Area	Headcount ratio	95% Confidence interval		Population share (%)
1–3 Household members	23.5%	21.2	25.9	6%
4–6 Household members	25.4%	24.2	26.5	27%
7–9 Household members	30.8%	29.7	32.0	31%
10+ Household members	31.7%	30.6	32.7	36%

APPENDIX 3. ANALYSIS OF SAMOA'S MPI

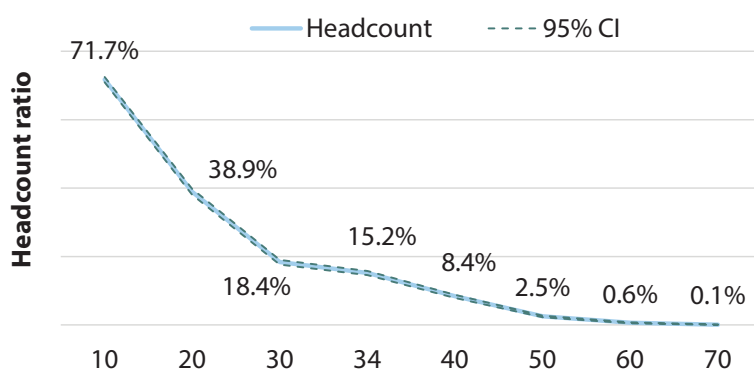
Figures 3.1, 3.2 and 3.3 illustrate the level of MPI, incidence or headcount (H), and intensity of multidimensional poverty (A), for various levels of the poverty cut-off k . They show that when $k = 10\%$ the MPI is about 0.179; incidence is around 72%, implying that the large majority of the multidimensionally poor population facing hardship is deprived in at least 10% or at least one of the weighted indicators, while intensity is about 25% meaning that 72% of the multidimensionally poor are on average deprived in 25% of the indicators. When k is 70%, MPI is almost zero (0.0060) and incidence is less than 1% (0.0911%), implying that practically almost no one is deprived in more than 70% (6 indicators) of the total weighted indicators of 9, while intensity is about 72% implying that almost no one is average deprived in more than 72% of the indicators.

Figure 3.1. MPI for different values of the poverty cut-off (k)



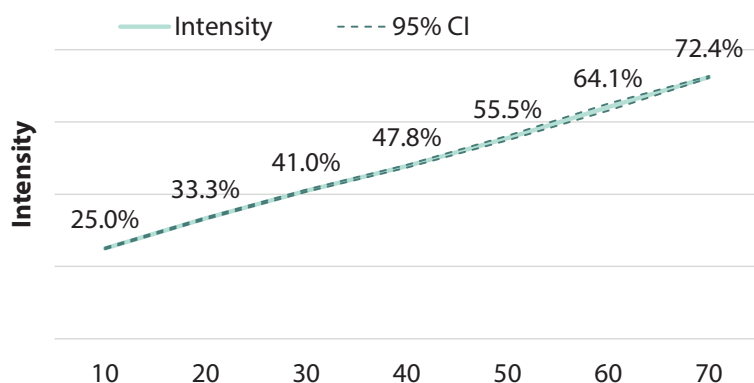
Source: Based on data from 2023 HIES.

Figure 3.2. Headcount ratio for different values of the poverty cut-off (k)



Source: Based on data from 2023 HIES.

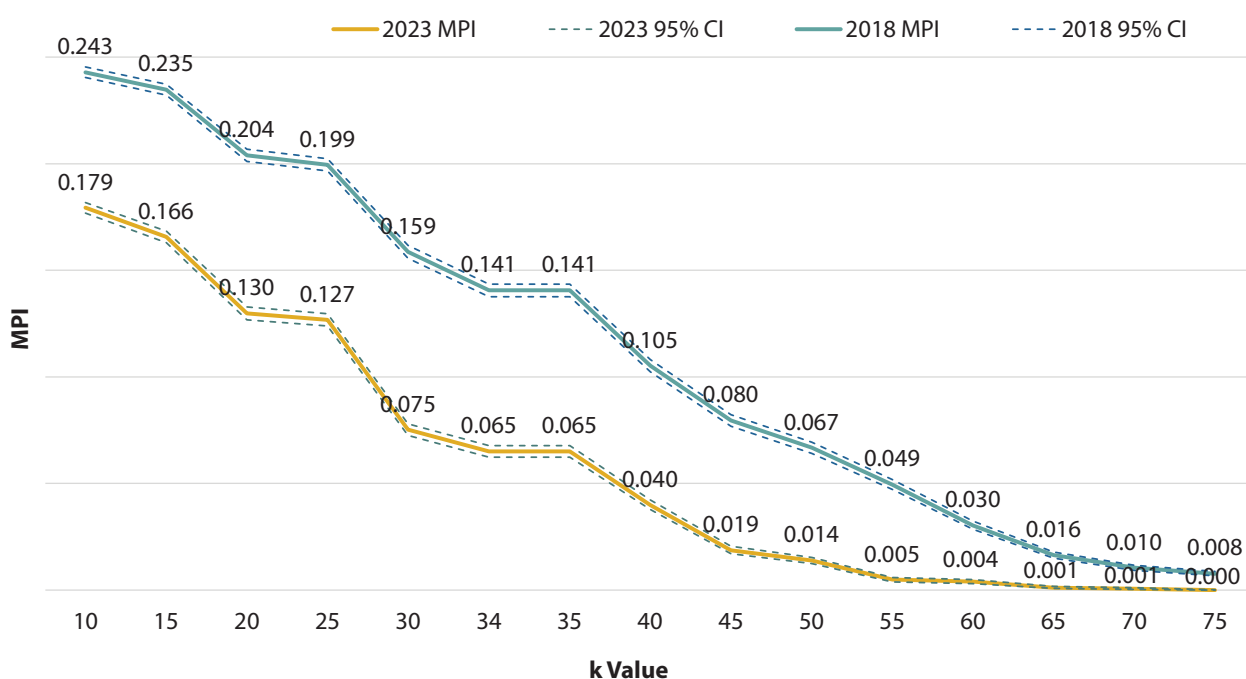
Figure 3.3. Intensity of poverty for different values of the poverty cut-off (k)



Source: Based on data from 2023 HIES.

Figure 3.4 shows that the MPI values in 2023 are lower than the values calculated for 2018 at all possible cut-offs implying that Samoa has reduced multidimensional poverty between 2018 and 2023.

Figure 3.4. MPI by different values of poverty cut-off (k), 2018 and 2023



Source: Based on data from 2023 HIES.

APPENDIX 4. ROBUSTNESS OF THE MPI TO ALTERNATIVE WEIGHTS AND POVERTY CUT-OFFS

Robustness checks were conducted to test the sensitivity of the level and composition of the measure to small changes in weights and poverty cut-offs, and to validate that the measure is robust and can be legitimately used for policy purposes.

Table A4.1 presents the Spearman and Kendall rank correlation coefficients using the selected poverty cut-off for the national MPI, 34%, and the rankings for alternative poverty cut-offs from 30% to 50%. The Spearman coefficient is higher than 0.90 for poverty cut-offs from 30% to 50%. The Kendall coefficient is also equal to 0.73 for cut-offs 30% to 40%, implying that 73% of the pairs of comparisons are concordant.

Table 34. *Correlation among governorate rankings for different poverty cut-offs, 2023*

Poverty cut-off	Coefficient	Poverty cut-off = 34%
30%	Spearman	1.00
	Kendall	0.73
40%	Spearman	1.00
	Kendall	0.73
50%	Spearman	1.00
	Kendall	0.73

Source: Based on data from 2023 HIES.

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