

## The American Samoa Revised Consumer Price Index

### First Quarter 2017 CPI Release

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Approved by: 

### Revised Consumer Price Index of American Samoa for the First Quarter 2017

The first quarter 2017 revised index registered at 100.8 points; an increase of 0.8 points from the base period of 4<sup>th</sup> quarter, 2016. The annual inflation is high at 3.6% when compared to much lower inflations in all quarters of 2016.

Group	1 <sup>st</sup> Qtr. 2017	4 <sup>th</sup> Qtr. 2017	1 <sup>st</sup> Qtr. 2016	Quarterly Percent Change	Annual Percent Change
<b>All Items</b>	<b>100.8</b>	<b>100.0</b>	<b>97.3</b>	<b>0.8</b>	<b>3.6</b>
Food	100.2	100.0	97.5	0.2	2.8
Alcohol beverages	99.4	100.0	99.9	-0.6	-0.5
Housing & utilities	101.8	100.0	95.5	0.8	5.5
Apparel	100.0	100.0	98.7	0.0	1.3
Transportation	104.2	100.0	95.7	4.2	8.9
Medical care	100.0	100.0	99.9	0.0	0.1
Recreation and entertainment	100.0	100.0	99.6	0.0	0.4
Education and communication	100.0	100.0	99.6	0.0	0.4
Other goods and services	101.3	100.0	99.9	1.3	1.4

Fuel and Oil drove up both Transportation and Housing cost while higher cost of Cigarettes accounted for the increase in Other Goods and Services. Transportation had the highest quarterly increase of 4.2% followed by the Other Goods and Services Group with 1.3% and Housing Group with a 0.8% increase. Food Group slightly increased by 0.2% while alcoholic beverages dropped by -0.6 percent from the previous quarter.

### General Information on the Revision

On April 1, 2015, the Statistics Division conducted a Household Income and Expenditure Survey (HIES) of a 20 percent sample of all households in American Samoa. This survey is a multi-purpose survey which includes gathering population, housing and household, family members, education levels and health status, as well as income and family spending. The information on

expenditures is critical to selecting a new item sample and calculating item weights for the items chosen in the new Consumer Price Index (CPI) market basket.

Household expenditure data were collected in two separate forms: the main questionnaire which includes major and regular household expenditures; and a weekly diary that was kept by selected families to record their daily purchases and expenses. Expenditure data were keyed and processed to compute expenditure group and sub-group indices

#### **New Market Basket:**

The sample selection process uses a very commonly used probability method called “probability proportional to size” to select the most important items to be included in the market basket. In all, about 240 items were originally selected. This sample was later reduced as some similar items were combined into a single item as well those items that were difficult to price. Once the sample market basket is drawn, detailed item specifications were developed for each item including the identification of primary outlets.

#### **Outlet Selection:**

The Statistics Division already has an outlet sample from the existing index. Because American Samoa has a relatively small economy, having a large universe from which to select a new outlet sample is impossible. The principal data collector will need to select a random sample of outlets from which to gather prices for the new items. In the U.S., the BLS actually conducts a “point of purchase survey” or POPS survey. This survey is used to identify where consumer purchase their goods and services. The results of this survey are used to select a new outlet sample.

#### **Adjudicating the Item Sample:**

Most expenditure items selected in the item sample were easily priced and given detailed specifications for collection. Unfortunately, there were a few items which were difficult or impossible to price. For instance credit cards payments, loan payments or children’s allowances. While these are legitimate expenditures, data collection is difficult to carry out. Additional expenditure items found very difficult to price included title bestowments, wedding, funeral expenses, school fundraising, airfares, etc. While some of these may result in transfer payments, these are legitimate expenses that should be included. These hard to price items were redistributed to measurable commodities or added to similar items in the same sub-group distributions. Air fares for instance were redistributed because households take round trips to Hawaii, Apia, and Manu’a, but were all combined together. To calculate the real price movement of air fares, it is necessary to expand the item from just “air fares” to air fares to the most common destinations. Based on available travel destinations statistics, standard air fares to Honolulu, Apia and Manu’a were applied to allocate appropriate weights in the CPI calculation.

**Calculation Methodology:**

The index uses a system, which is known as Modified Laspeyres. This gives exactly the same result as an ordinary Laspeyres index, but the method of calculation is different. The formula for the Modified Laspeyres Index can be written as:  $I_n = (W_{n-1} \times P_n / P_{n-1})$  where  $I_n$  is the value of the index in the current period (i.e. period 'n'),  $W_{n-1}$  is the weight (or index value) of each item in the previous period (i.e. in period 'n-1'), and the fraction  $P_n / P_{n-1}$  is the price relative for each item, between the current price ( $P_n$ ) and the price in the previous quarter ( $P_{n-1}$ ).

The Revised American Samoa CPI has 228 items with 1,082 price quotations from about 100 business establishments.