Technical Note: Poverty Methodology for Saint Lucia 2016 Survey of Living Conditions and Household Budget

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# Introduction

Three steps need to be taken in measuring poverty (for more discussion see Ravallion, 1998). These are:

* Defining an indicator of welfare;
* Establishing a minimum acceptable standard of that indicator to separate the poor from the non-poor (the poverty line), and;
* Generating a summary statistic to aggregate the information from the distribution of this welfare indicator relative to the poverty line.

# Consumption Aggregate

While income is generally used in measuring poverty in developed countries, consumption is preferred to income as welfare measure for developing economies. As described in World Bank (2015), consumption is recommended due to the following reasons

* Consumption data are generally more easily and accurately collected than income data in a developing country context, where income tends to be seriously understated.
* Consumption comes closer to measuring permanent income as it captures the capability of households to save and borrow, and so it provides a smoother measure of living standards.
* Consumption captures the living standards achieved by individuals as opposed to an opportunity to reach a given welfare level.

Saint Lucia, like other OECS member states use consumption as welfare measure in assessing poverty. Household consumption will be defined as the expenditure function that shows the minimum expense that is required to meet certain level of well-being expressed in the same unit, i.e. monetary expenses. The consumption aggregate is constructed following two steps: i) selecting components of the total consumption expenditure such as food consumption, non-food consumption, durables goods, and housing expenditure to be included in the consumption aggregate and how they are included; and ii) normalizing within the household by an adult equivalent scale.

## Components of Consumption Aggregate

The survey is constructed using the UN system for the classification of individual consumption according to purpose (COICOP). The COICOP codebook covers all aspects of consumption expenditure. It contains 14 divisions of which Divisions 01 to 12 cover consumption expenditure of households.[[1]](#footnote-1) Items are grouped into two main components: i) food and non-alcoholic beverage; and ii) non-food consumption.

The construction methodology of each component will be described in this section.

### Food and Non-alcoholic Beverages

Approximately 1,500 codes from COICOP Division 01 are used to code the data of food consumption collected from the survey. This consumption component contains four basic subcomponents. i) food purchased; ii) food consumed away from home; iii) home-grown food; and iv) food received as gifts or food aid.

In the 2016 SLC/HBS, the values for food consumption is based on a food section in a recall questionnaire which includes a direct question about the amount of food which was consumed away from home. The household spenders reported the quantity and total value of all purchases made of all items, including a full description of the item purchased, its weight and the brand of the product purchased. The estimated value of home-grown food consumed by the household is also based on recall.

Food price data – to be added.

### Non-food Items

This consumption component contains three basic subcomponents which cover COICOP Division 02-12: i) durables and semi-durables; ii) services; and iii) housing.

*Durable and semi-durable goods*. Total expenditure is derived by aggregation of several sections of the household and person questionnaires including:

* annual expenditure on materials used for routine household repair and maintenance, accounted for depreciation
* furniture, furnishings and household equipment acquired by the household during the one year reference period, accounted for depreciation
* annualized expenditure on transportation specific to the operation of vehicles, this includes the purchase of batteries, gasoline etc.
* annualized expenditure on clothing and footwear.

*Services.* Total expenditure is derived by aggregation of several sections of the household and person questionnaires including:

* annualized expenditure on labor services related to housing and routine maintenance of the dwelling unit
* annualized expenditure billed on electricity, water and utilities, babysitting, maid, gardener, etc.
* annualized expenditure on repair and maintenance services of furniture, household equipment, vehicle, etc.
* annualized expenditure on health, education, recreation, etc.

Total expenditure on services *does not* include:

* lumpy expenditures such as the purchase large consumption items
* all types of investment related expenses
* cash gifts, alimony/child maintenance, donations charities, loans given out, hire purchase installments, life insurance payments etc.

*Housing.* The monetary amount paid by renter for their accommodation is taken as the service of the dwelling. Owners receive as part of their welfare measure the value of the “implicit rent value” question. If either value of the rent for renters or the implicit rent for owners is missing, the average of each group is taken to impute the housing rent value. For free-of-charge tenants that report zero as the value of their rent, it is taken as the real value.

## Normalization of Household Consumption

It is generally assumed that the total welfare of a household is distributed among all the members of the household because not all the individuals within the household have the same consumption patterns. For example, a child does not consume the same amount of food than an adult. The Adult Equivalent methodology is applied. The equivalence scale employed is as recommended by Deaton and Zaidi, (2002)[[2]](#footnote-2), which attributes values of 0.5 for children under 5 years, and 0.7 for children aged 5-14 years, with a full weight of 1 for all other ages.

# Consumption Poverty Line

A poverty line is “the monetary cost to a given person, at a given place and time, of a reference level of welfare. People who do not attain that level of welfare are deemed poor, and those who do are not” (Ravallion 1998). The choice of poverty lines depends on the intended use of the poverty rates. Like most developing economies, Saint Lucia use an *absolute* poverty line. The poverty line is fixed to represent the same purchasing power overtime, although it may differ across countries. Absolute poverty lines are more relevant to assessing the policies on their success in bringing people out of poverty by ensuring their welfare stand above the *absolute* threshold. Developed countries, on a contrary, tend to adopt *relative* poverty lines, in which poverty lines are updated overtime when income per capita rises. Thus, the poor are not those who lack command over basic needs, but those who have relatively low welfare compared to the rest of the society.

When consumption expenditure is chosen to be a measure of household welfare, which is the case for Saint Lucia and the OECS countries, the poor are defined as those who lack command over basic consumption needs, including food and nonfood components. In general, poverty lines can be constructed from survey data using three different approaches: the cost of basic needs, food energy intake and subjective evaluation, each of which has its own strength and weakness.[[3]](#footnote-3) The most widely-used approach is the cost of basic needs. Saint Lucia adopts this approach to calculate its absolute poverty line. The cost of basic needs approach first estimates the cost of acquiring enough food for adequate nutrition, taking into account consumption patterns of the poor. This is called the food poverty line. Then, the cost of non-food consumption is added to the food poverty line, giving the poverty line. Subjective poverty lines measure poverty by asking people to define a poverty line, and using this to measure the extent of poverty. Because the answers vary from household to household, subjective poverty lines are not appropriate as official measures of poverty (Ravallion 1992). The food energy intake approach is generally used when price information in unavailable. The poverty line is associated with the monetary value of the total consumption for a representative household that meets a particular caloric requirement (Tarp et al. 2002, 79). Its parsimony for not requiring data on food prices gives rise to various problems, e.g. the tastes of the household and the relative prices of different foods, that it is not recommended to be used unless the alternatives are infeasible.

The poverty line constructed from St Lucia’s 2016 Survey of Living Conditions and Household Budget (SLCHB) is an absolute poverty line based on the cost of basic needs method. The methodology involves three main steps: i) food poverty line; ii) non-food poverty line; and iii) poverty headcount and iterations.

## Food Poverty Line

The first step is to construct the food poverty line by estimating the cost of obtaining the minimum nutritional requirement. The methodology involves several steps which will be sequentially elaborated below.

*Identify basic needs.* For Saint Lucia, the minimum nutritional requirement is defined as 2400 Kcal a day based on a study of WHO (1985).

*Identify a Reference Group (RG).* A reference group is supposed to represent the consumption patterns of those households around the poverty threshold. Thus, this group is meant to include people above and below the poverty line. For example, those in the lowest, or second-lowest, quintile of the income distribution; or those consuming between 2300 and 2500 Kcal. An initial choice of the reference group is guessed and arbitrary, but expected to contain the poverty rate after all the calculations.

*Construction of the food basket.* This step constructs a food basket that represents the consumption patterns of the reference group. The basket comprises a list of food items that meet the following *empirical* criteria that has been applied in several countries.[[4]](#footnote-4) Nonetheless, these criteria are flexible and should be discussed in the poverty committee.

* 1. The item is consumed by at least 30% of households in the reference group.
  2. The item represents at least 1% of the total food expenditure of the reference group.
  3. The item provides at least 1% of the total calories consumed.
  4. The item represents at least 0.5% of the total food acquisitions of the reference group.
  5. The monetary value of the food basket represents at least the 80% of the average food expenditure of the reference group.

*Calculate the cost of the minimum nutritional requirement.*

*Alternative approach*

# Income Poverty Line

1. Divisions 13-14 cover consumption expenditure of non-profit institutions serving households and general government. [↑](#footnote-ref-1)
2. Deaton, A. and S. Zaidi (2002), [A Guide to Aggregating Consumption Expenditures, Living Standards Measurement Study](http://siteresources.worldbank.org/INTPA/Resources/429966-1092778639630/deatonZaidi.pdf), Working Paper 135. [↑](#footnote-ref-2)
3. Haughton, Jonathan; Khandker, Shahidur R.. 2009. *Handbook on poverty and inequality*. Washington, DC: World Bank. http://documents.worldbank.org/curated/en/488081468157174849/Handbook-on-poverty-and-inequality [↑](#footnote-ref-3)
4. See for example the cases of Colombia (MESEP 2012, 51) and Dominican Republic (MEPYD, ONE, and Banco Central de la República Dominicana 2012, 21) [↑](#footnote-ref-4)