



Food affordability index

Overview

Market-level analyses are an important method of measuring food security and can serve many purposes, including estimating domestic supply against population requirements, evaluating market response to changes in supply or demand, and providing insight on the consumer prices of food versus those of other goods ([World Food Programme, 2009](#) [1]). A food affordability index is one of several market-level indices included in Data4Diets, which also includes the [domestic food price index](#) [2] and the [volatility of food prices](#) [3]. These indicators use consumer-level data to evaluate prices faced by consumers in food markets. Unlike the other indices mentioned, however, a food affordability index is a ratio of food prices to wages; it is not a measure of price level itself, as is the case with the domestic food price index, nor does it quantify the intensity of food price fluctuations, as the volatility of food prices does. Although a standardized food affordability index does not yet fully exist, researchers are currently working on developing one through the [Affordability of Nutritious Diets in Africa \(IANDA\) project](#) [4]. This indicator is considered an 'emerging indicator' because it has not been fully validated and is not in common use.

Method of Construction

A food affordability index is the ratio of average wages, usually of unskilled or low-skilled laborers, to the price of one individual food item or a combination of items. Wages of unskilled or low-skilled workers are often used because individuals in this category are usually those most vulnerable to fluctuations in food price that can lead to food insecurity and poor nutrition ([Lele et al., 2016](#) [5]). As one standardized indicator has not yet been developed, there is no manual to create such an indicator. However, one example of how a food affordability index is created can be found in the following paper published in Food Policy ([Dorward, 2013](#) [6]) in the section entitled "An indicator of real food prices relative to real incomes."

Uses

A food affordability index provides useful information on access to food both within and across countries. It has also been suggested as a way to measure the income effect, or the change in consumption due to changes in real incomes, of food prices on the world's poor ([Dorward, 2013](#) [6]). Food affordability indices can be designed to focus on the prices of staple foods, nutrient dense foods, or other food items of interest. This metric could be used for problem identification, program design, advocacy, and national (or global) monitoring purposes. As mentioned previously, [IANDA](#) [4] is currently developing such an indicator for the purpose of improving monitoring and tracking of market-level data and to help inform policymakers and program staff on the availability and affordability of nutritious food.

Strengths and Weaknesses

A strength of this indicator is that it is relatively easy and inexpensive to develop and update as it pulls from market-level data as opposed to household-level data or individual-level data. Additionally, this indicator provides more insight into the affordability of food, as compared to simply looking at the price level as is done with the domestic food

price index, because of its incorporation of wage data. However, a major weakness of this indicator is that currently this metric is not routinely collected by any major data provider, and thus any analyses may be more difficult to contextualize with previous findings, which would not be the case for the more standard market-level indicators included in the Guiding Framework, such the domestic food price index and the volatility of food prices.

Data Source

Market-level food price data must be collected through price surveys in food markets or by drawing on an available source of secondary data. Examples of where food price data could be found include the [World Food Programme's \(WFP\) Vulnerability Assessment and Mapping](#) [7] ([WFP, 2015](#) [8]) and the Food and Agriculture Organization's (FAO) Global Information Early Warning System database ([GIEWS](#) [9]). Wages could also be obtained from secondary sources such as government agencies collecting information on labor or household or individual level surveys. Other options include data from the International Labor Organization ([ILO, 2015](#) [10]).

Links to guidelines

- [Lele et al., \(2016\). "Measuring Food Security and Nutrition: An Independent Technical Assessment and User's Guide for Existing Indicators."](#) [5]

Links to illustrative analyses

- [Dorward, \(2013\). "Agricultural labour productivity, food prices and sustainable development impacts and indicators"](#) [6]

Food Security Dimensions

- [Quantity](#) [12]
- [Quality](#) [13]
- [Stability](#) [14]

Data Collection Levels

- [Market](#) [15]

Data Sources and Methods

- [Food Composition Databases](#)
- [World Food Programme \(WFP\) Vulnerability Analysis and Mapping \(VAM\)](#)

Requires Food Composition Database

- [Yes](#) ^[16]

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