



CPS Paper

Basic Food Basket Price From Big Data

Author: Mr Marcus André Alves Zimmermann Vieira

Coauthors: Andrea Diniz da Silva

Submission ID: 729

Reference Number: 729

Files/Uploads

[Paper BD ISI](#)

Brief Description

Session about alternative sources or big data

Abstract

The basic food basket has a strong representation in social dynamics of Brazil, as the less well-off classes are greatly affected by variations in the price of food and other basic consumer goods. This is because the value of the basic food basket consumes a large portion of Brazilian families' income. DIEESE calculates the value of the basic food basket based on prices obtained through in-person collection at physical establishments. However, this imposes constraints on geographic coverage and number of establishments visited, as it represents a high financial and time cost. One option to overcome these limitations is to use alternative methods and data sources. This article aims to propose a new approach for collecting the prices of products considered in calculating the value of the basic food basket, using big data. In this proposal, the price of the basic basket is calculated based on prices collected on e-commerce sites, using web scraping, implemented using the R Selenium package. Preliminary results show that, for the city of São Paulo, the difference between the price of the basic food basket calculated in the way proposed by the authors and that carried out by DIEESE does not exceed 3%.

Figures/Tables

Table 1

Items	Region 1**	Region 2***	Region 3****	National
Meat	6.0 kg	4.5 kg	6.6 kg	6.0 kg
Milk	7.5 l	6.0 l	7.5 l	15.0 l
Beans	4.5 kg	4.5 kg	4.5 kg	4.5 kg
Rice	3.0 kg	3.6 kg	3.0 kg	3.0 kg
Flour	1.5 kg	3.0 kg	1.5 kg	1.5 kg
Potatoes	6.0 kg	-	6.0 kg	6.0 kg
Vegetables (Tomatoes)	9.0 kg	12.0 kg	9.0 kg	9.0 kg
French Bread	6.0 kg	6.0 kg	6.0 kg	6.0 kg
Coffee	600 g	300 g	600 g	600 g
Fruits (Bananas)	90 units	90 units	90 units	90 units
Sugar	3.0 kg	3.0 kg	3.0 kg	3.0 kg
Lard/ Oil	750 g	750 g	900g	1.5 kg
Butter	750 g	750 g	750 g	900g

Table 2

Month/Year	Proposal (R\$)	Traditional (R\$)	Difference (%)
March/2023	806.45	782.23	3.0
April/2023	806.37	794.68	1.5