

Alternative Food for Low-Income Families: Dodging 2021 Brazilian Inflation Through Statistics

Jaasiel Logan dos Santos de Carvalho

¹ Universidade Federal da Bahia, Salvador, Bahia, Brazil

Abbreviated Abstract: The constant rise in the prices of products and services in Brazil has negatively impacted families' budgets with monthly income between 1 and 5 minimum wage. This work analyzed how high prices of considered essential foods impacts the diet of low-income families, in particular when it makes them inaccessible, and which food options could be considered a replacement, especially from the monetary and nutritional values points of view.

Related publications:

— IBGE. Instituto Brasileiro de Geografia e Estatística. Pesquisa de Orçamentos Familiares 2017-2018: Análise da Segurança Alimentar no Brasil

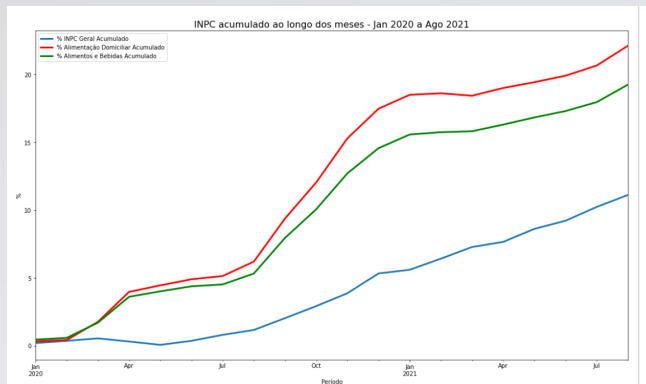


jaasielcarvalho@ufba.br

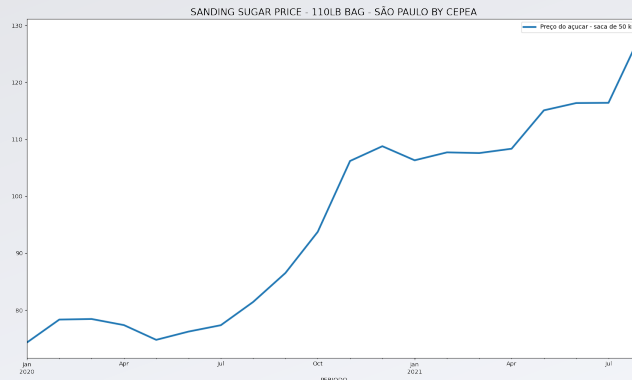


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Problem and Data



The evident growth both in the general National Consumer Price Index or INPC, in the household food and food and beverage categories directly affects the diet of the poorest families.

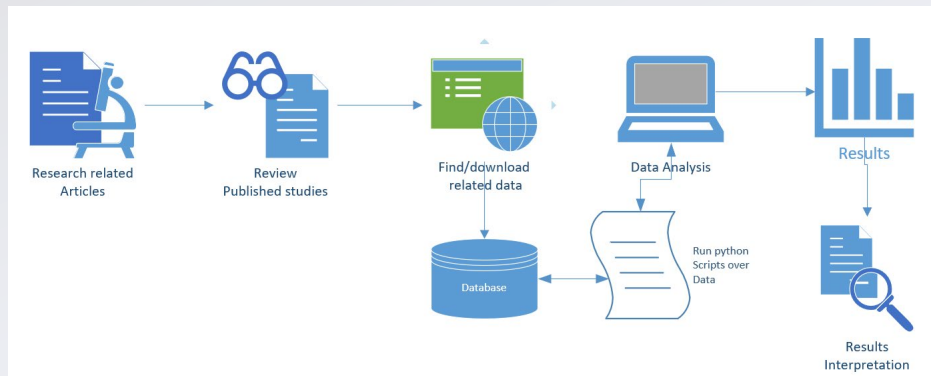


Sugar, rice and dairy products are some of the most consumed food products by the studied families. The price of these products have been raising since the beginning of 2020.

Solution: To replace the foods highly impacted by INPC for its equivalents in both monetary and nutrients values

Methods

A simpler approach was used for this work since IBGE's microdata was not considered due to its complexity level. Python was the programming language used to transform the data collected in csv format. Some libraries were applied to support the work like pandas and matplotlib.



Descriptive statistics like frequency and tendency measures were also used to describe and characterize the data

	codigo	alimento_pt	kcal	carboidratos	proteina	gordura
0	C0001C	Abacate, polpa,	75	5,84	1,15	6,21
1	C0195C	Abacaxi, cozido, caramelado, << Pineapple...	136	33,3	0,60	0,26
2	C0054C	Abacaxi, polpa, congelada,	33	7,80	0,47	0,11
3	C0218C	Abacaxi, polpa, grelhado, c/ canela, << P...	50	12,0	0,70	0,34
4	C0002C	Abacaxi, polpa,	49	11,6	0,68	0,33

Results and Conclusions

The products that make up a basic food basket goods for Low-income families has seen significant increase in price over the last year and a half. They are: meat, milk, beans, rice, flour, potatoes, tomatoes, bread, coffee, bananas, sugar, oil and butter.

There are other foods that could replace the actual most expensive ones. Take for instance Beans. It contains nutrients, such as protein, iron, B vitamins, among others. The good news is that all of these nutrients can also be found in the much cheaper plant foods.

