Do Healthy Foods Cost More? It Depends on How You Measure the Cost
Andrea Carlson and Elizabeth Frazao
USDA, Economic Research Service

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Introduction
The common perception that healthy foods cost more leads some consumers to believe that they cannot afford to consume a healthy diet. This perception may be based on a variety of factors, but how the cost is measured may play a large role.

Data
1. National Health and Nutrition Examination Survey (NHANES) 2005-06: The 24-hour recall data include the amount for each food item consumed and the nutrient content.
2. Pyramid Equivalent Database (PED) version 2: This database gives the number of pyramid equivalents (serves of fruits and vegetables and ounce equivalents of grains).
3. USDA’s Center for Nutrition Policy and Promotion Food Focus Database 2005-06: These data provide the cost in dollars per 100 edible grams.

Objective
To compare the cost of food using different cost metrics.

Metrics used
- Cost of energy: Boroian and Liebman. Recent nutrition literature on food costs has focused on this metric.
- Cost of a standard portion: The cost of consuming recommended amounts or the amounts that are normally consumed.
- Cost of edible weight: Dry edible weight: The edible weight of food is a better indicator of safety than the number of kilocalories.

Method
To compare the different food cost metrics, we established a standard portion size for each food and then calculated the cost metric for each consumed food item reported in NHANES. In this paper, we group and discuss only healthy foods from underconsumed food groups—fruits, vegetables, and whole grains—and compare those with foods that should be consumed in moderation (moderation foods).

Results
Figures 1-3 show that the ranking of most expensive to least expensive food groups changes with each metric. In particular, most fruits and vegetables, which have less energy in a standard portion, have higher energy costs than the whole grains or moderation foods (fig. 1). However, most fruits, vegetables, and whole grains have lower standard portion costs than do moderation foods (fig. 2) and are not more expensive per edible pound than moderation foods are (fig. 3).

Budget-conscious consumers will likely focus on the cheapest foods, such as those below the 25th percentile (figs. 4, 6). For both standard portion costs and weight costs, the cost of moderation foods starts out low at the 1st percentile but is the highest by the 25th percentile.

Conclusions
When using dollars per edible pound or per standard portion, the healthier foods—fruits, vegetables, and whole grains—tend to cost less than the moderation foods. Although fruits and vegetables have higher costs per calorie than moderation foods, this cost metric does not make sense in a country like the United States where most individuals consume too many calories while failing to consume a healthy diet. The costs per standard portion and cost per edible pound are better measures of safety than kilocalories are. The conclusion is that fruits and vegetables are not more expensive and are often less expensive than moderation foods.