

Most and Least Expensive Ways To Buy

To determine whether fresh fruits and vegetables are more expensive than processed, we compared prices for the 16 fruits and 20 vegetables for which retail prices were available for both fresh and processed forms (canned, frozen, dried, and/or juice). Not all processed forms are available for all fruits and vegetables. Although green beans are available in fresh, canned, and frozen forms, broccoli is only available in fresh and frozen form. On the other hand, there may be more than one “type” for the forms available. For example, fresh carrots are available as whole and as baby carrots, whereas canned carrots are available whole or sliced. Some fruits and vegetables—such as melons, lettuce, and celery—were excluded from this analysis because they were only available in one form, typically fresh.

We also separated out the different types of juice (shelf-stable, refrigerated, frozen, and frozen concentrate) for this analysis. For each fruit and vegetable, we identified the forms with the highest and lowest price, both per pound and per serving.

Most and Least Expensive Forms of Fruits

No one form stood out as being the most expensive way of buying fruit at retail. Four fruits were most expensive when purchased fresh, five when purchased frozen, four when purchased canned, and three as dried, while juice was never the most expensive (fig. 11a). By serving, canned fruit became the most expensive form for nearly half of the 19 fruits (fig. 11b). Frozen fruit was the most expensive way to eat 4 of the 16 fruits. Oranges and pineapple were most expensive when eaten fresh.

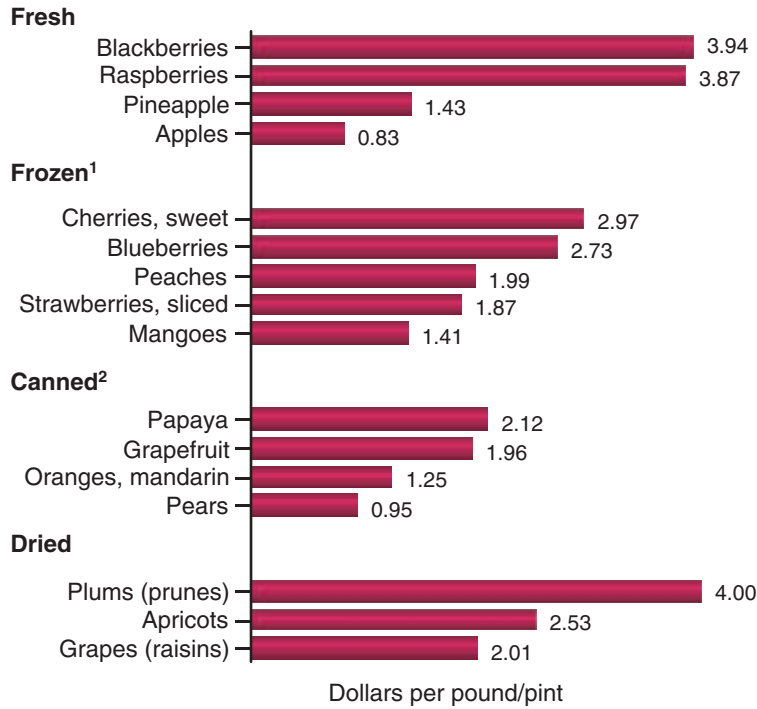
The cheapest way to buy fruit was fairly evenly distributed between fresh (5), juice (6), and canned (5) (fig. 12a). Frozen and dried fruit were never the cheapest way to buy fruit. When converted to servings, the cheapest way to eat fruit was overwhelmingly fresh (fig. 12b). Two-thirds of all fruits were cheapest when eaten fresh. Juice was the cheapest route to eat fruit for 3 of the 16 fruits. Canned was never the cheapest way to eat fruit. Dried apricots and raisins were the most expensive way to buy those two fruits (apricots and grapes), but when converted to servings they were actually the cheapest way to eat them. This is because dried fruit has such a high per-serving yield and the serving size is smaller, $\frac{1}{4}$ cup instead of $\frac{1}{2}$ cup for other forms of fruit.

Although there were price differences for different forms of fruits, the dollar-per-serving difference between the most and least expensive form of the same fruits was typically small (fig. 13). For example, the price per serving was 25 cents for fresh apricots, 37 cents for canned apricots, and 22 cents for dried apricots, so the price spread was 15 cents per serving. For half of the fruits in the sample, the price difference per serving between the most and least expensive forms was less than 25 cents, and for all but one fruit—peaches (canned vs. frozen)—it was under 50 cents.

When converted to servings, the cheapest way to eat fruit was overwhelmingly fresh.

Figure 11a

Most expensive way to buy fruit

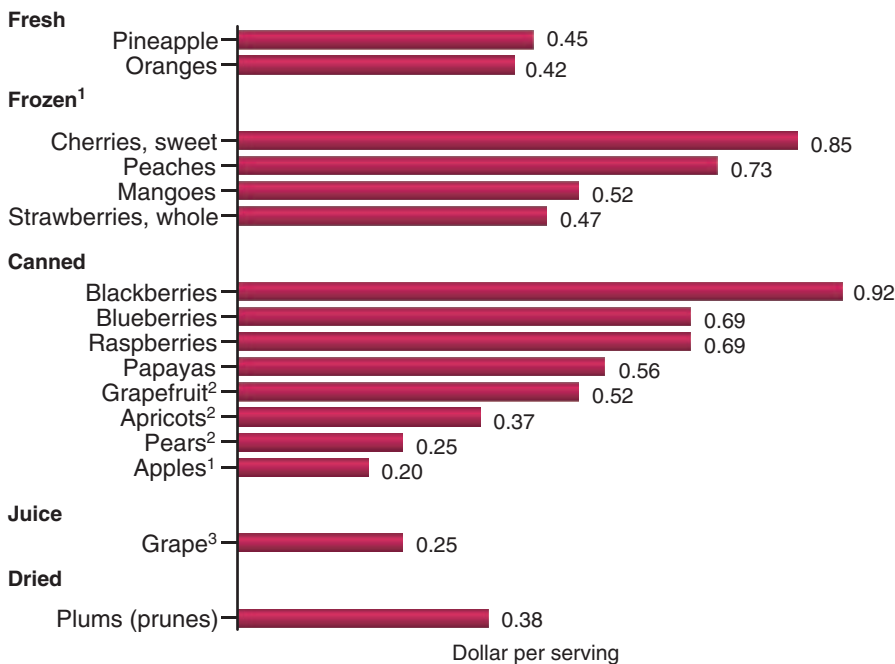


¹Unsweetened. ²Packed in juice, except canned papaya. Includes all canned papaya.

Source: ACNielsen Homescan data, 1999.

Figure 11b

Most expensive way to eat fruit

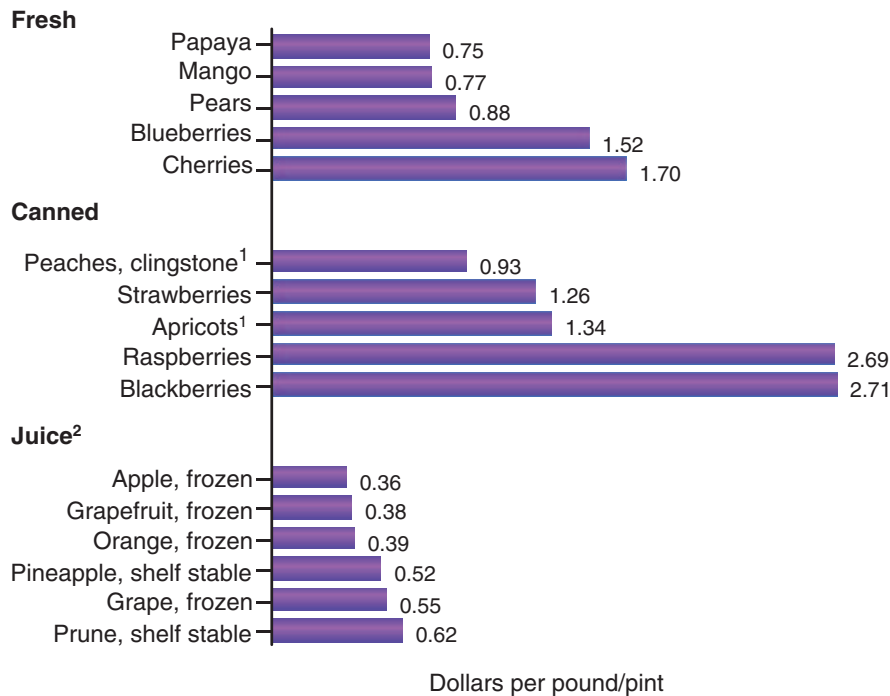


¹Unsweetened/unflavored. ²Packed in juice. ³Shelf stable.

Source: ACNielsen Homescan data, 1999. Converted to servings using factors obtained from *The Food Buying Guide for Child Nutrition Programs*, U.S. Department of Agriculture, Food and Nutrition Service, revised November 2001.

Figure 12a

Least expensive way to buy fruit

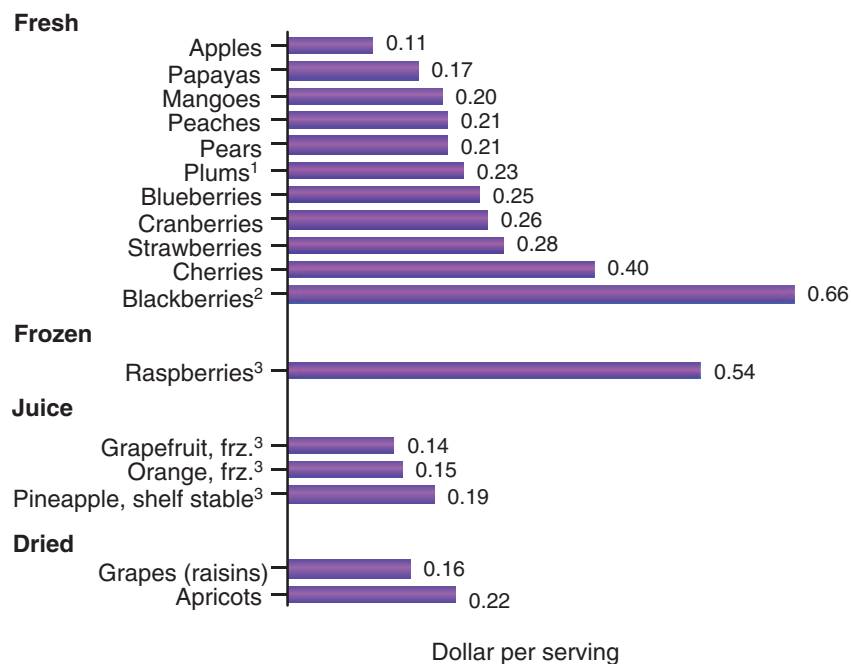


¹Packed in juice. ²Unsweetened.

Source: ACNielsen Homescan data, 1999.

Figure 12b

Least expensive way to eat fruit

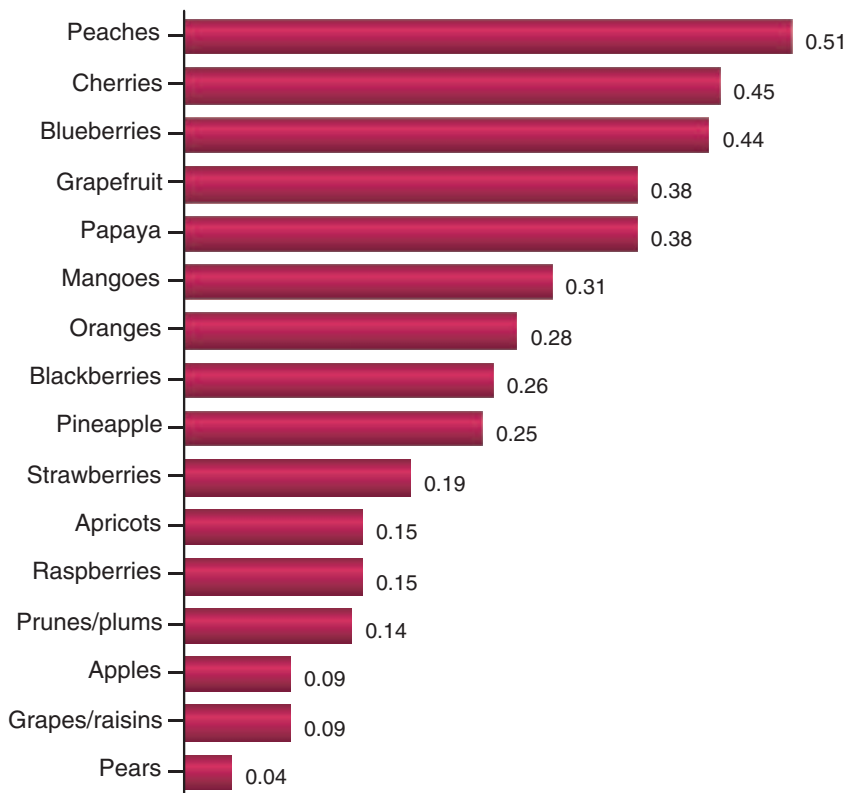


¹Fresh plums and shelf-stable prune juice were both the least expensive at 23 cents per serving. ²Fresh and unsweetened, frozen blackberries were both the least expensive at 66 cents per serving. ³Unsweetened.

Source: ACNielsen Homescan data, 1999. Converted to servings using factors obtained from *The Food Buying Guide for Child Nutrition Programs*, U.S. Department of Agriculture, Food and Nutrition Service, revised November 2001.

Figure 13

What is the price difference between the most and least expensive form of the same fruit?



Dollar per serving difference between most and least expensive form of same fruit

Source: ACNielsen Homescan data, 1999. Converted to servings using factors obtained from *The Food Buying Guide for Child Nutrition Programs*, U.S. Department of Agriculture, Food and Nutrition Service, revised November 2001.

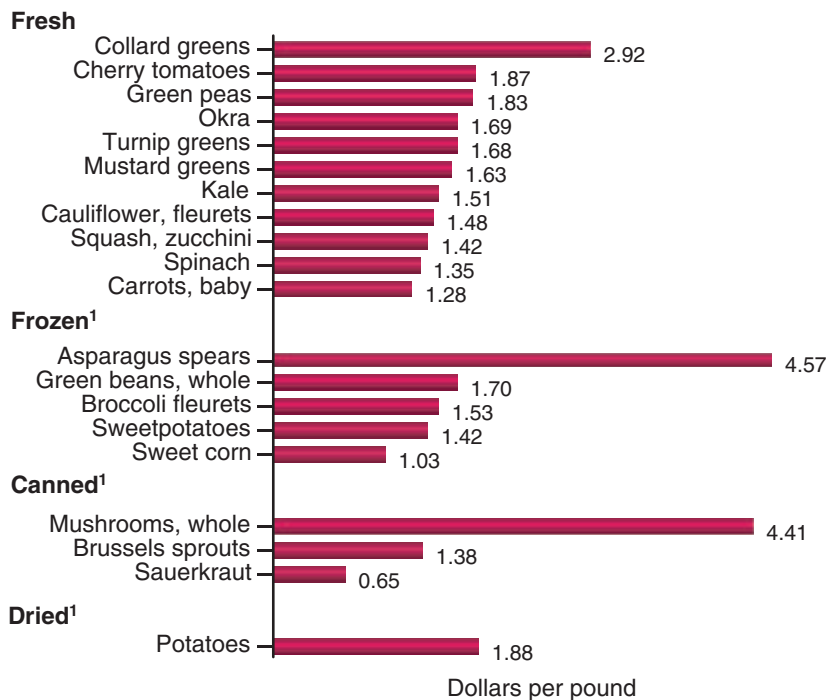
Most and Least Expensive Forms of Vegetables

Consumers’ perceptions that fresh produce is often more expensive than processed is bolstered by a comparison of the price per pound between fresh and processed vegetables (fig. 14a). Vegetables in their fresh form drew the highest price per pound for 11 of the 20 vegetables. For example, among the different types of carrots (fresh whole and baby carrots, canned whole and sliced, frozen whole and sliced), fresh, baby carrots had the highest price per pound. Frozen vegetables had the highest price per pound for 5 of the 20 vegetables. Canned vegetables were the most expensive for only three vegetables. We included only one dehydrated vegetable in our study, potatoes, and it drew the highest price per pound among potato forms.

However, per serving, the most expensive way of eating a particular vegetable becomes fairly evenly divided among canned vegetables (7 of the 20 vegetables), frozen (7), and fresh (6) forms (fig. 14b). It may seem surprising that for so many vegetables a serving was more expensive in canned form. The reason is that the weight of the canned vegetables

Figure 14a

Most expensive way to buy vegetables

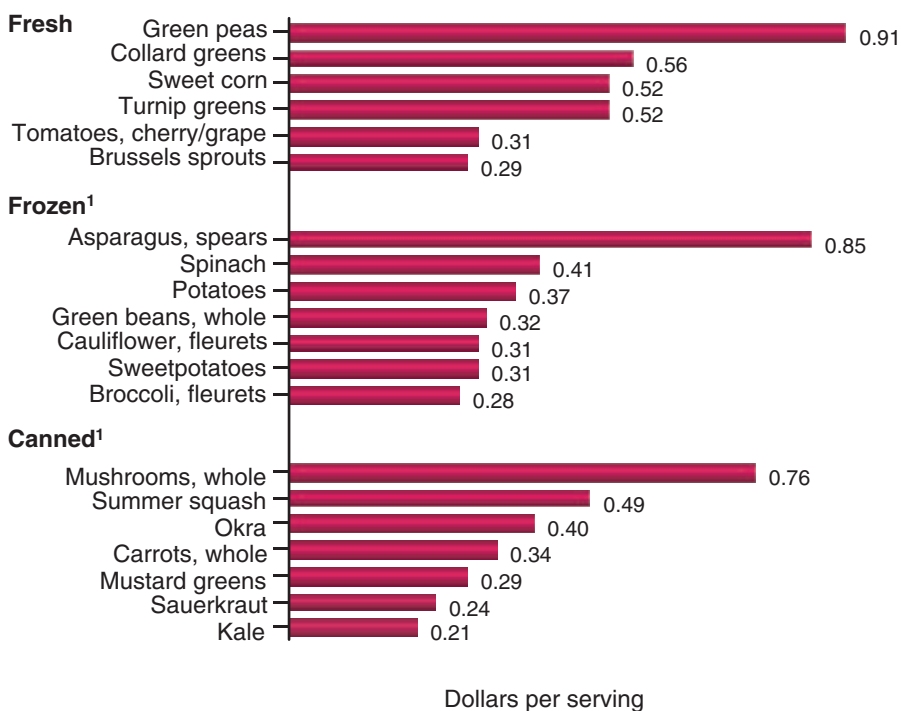


¹Plain/regular versions.

Source: ACNielsen Homescan data, 1999.

Figure 14b

Most expensive way to eat vegetables



¹Plain/regular versions.

Source: ACNielsen Homescan data, 1999. Converted to servings using factors obtained from *The Food Buying Guide for Child Nutrition Programs*, U.S. Department of Agriculture, Food and Nutrition Service, revised November 2001.

includes the packing liquid, whereas the serving size reflects a drained amount. As a result, most canned vegetables had fewer servings per pound than their fresh or frozen counterparts, so their price per serving increased.

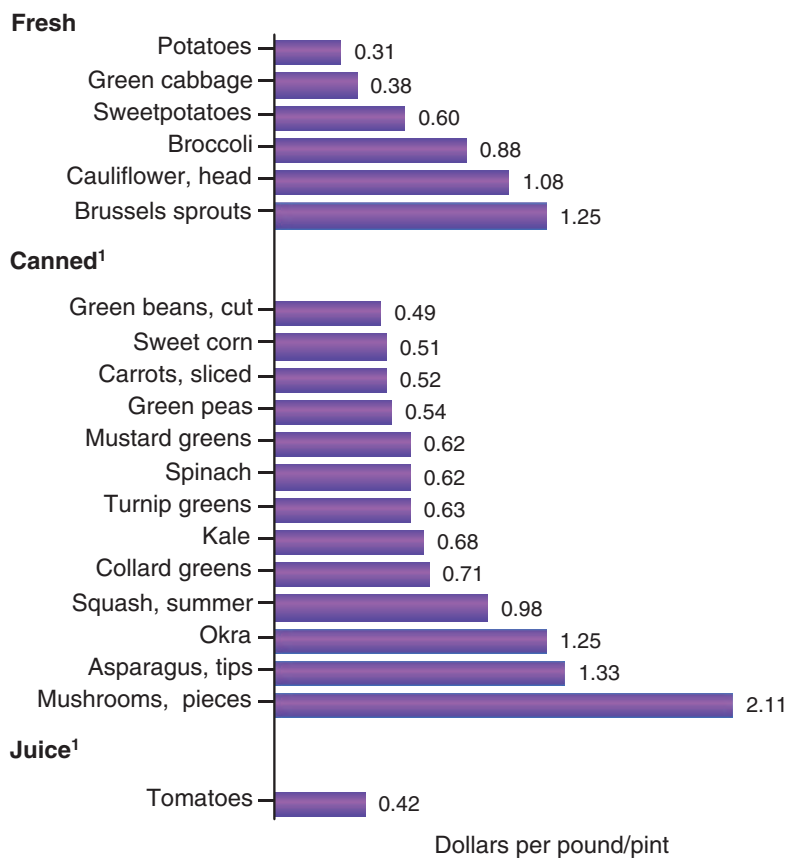
Since fresh and frozen vegetables are typically more expensive per pound than other forms, it is not surprising that the least expensive way of purchasing vegetables is in canned form (fig. 15a). For 13 out of 20 vegetables, a canned form was the cheapest way to buy a pound of the vegetable. For 6 vegetables, fresh was the least expensive way to buy a pound. Frozen was never the cheapest way to buy a pound of vegetables. Interestingly, tomato juice was the cheapest way to buy an equivalent amount of “tomatoes” (we used a pint of juice as equivalent to a pound).

For more than half of all vegetables, 11 out of 20, a serving was cheapest in fresh form (fig. 15b). For most vegetables, from cabbage to mushrooms, fresh yields the highest number of servings per pound.

For vegetables, the difference between the most expensive and the least expensive forms ranged from as little as 3 cents for Brussels sprouts to 73 cents for green peas (fig. 16). As with fruits, most of the price differences for vegetables were less than 25 cents, and all—except green peas and mushrooms—were less than 50 cents.

Figure 15a

Least expensive way to buy vegetables



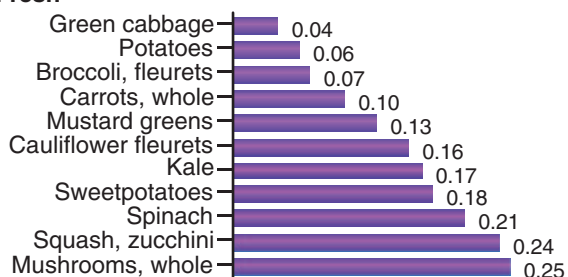
¹Plain/regular versions.

Source: ACNielsen Homescan data, 1999.

Figure 15b

Least expensive way to eat vegetables

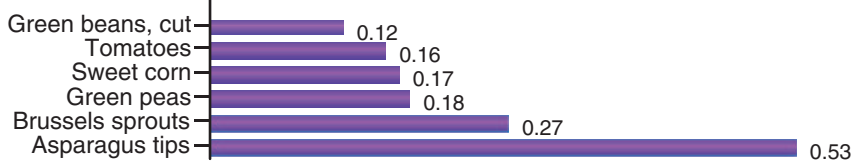
Fresh



Frozen¹



Canned¹



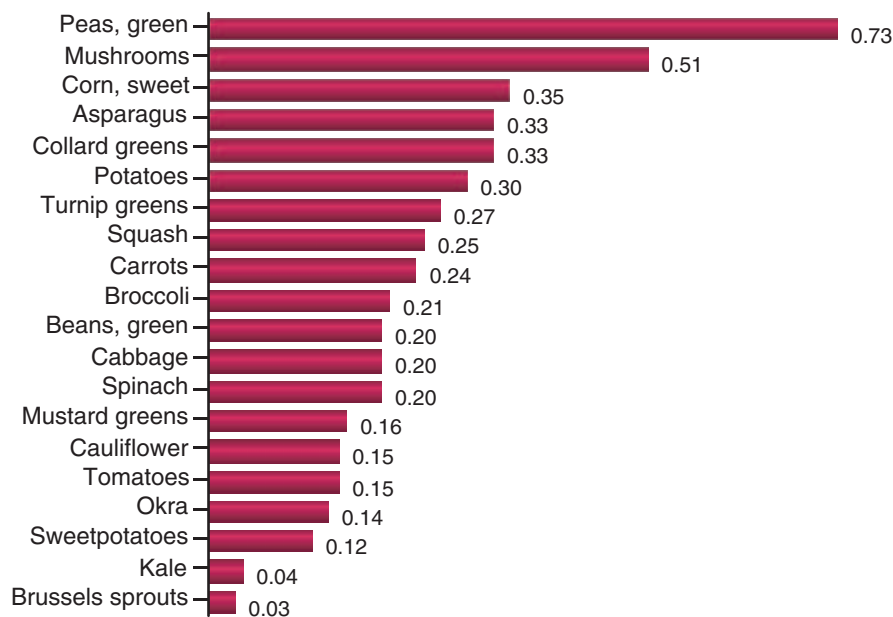
Dollar per serving

¹Plain/regular versions. ²Canned tomatoes and tomato juice were both the least expensive at 16 cents per serving.

Source: ACNielsen Homescan data, 1999. Converted to servings using factors obtained from *The Food Buying Guide for Child Nutrition Programs*, U.S. Department of Agriculture, Food and Nutrition Service, revised November 2001.

Figure 16

What is the price difference between the most and least expensive form of the same vegetable?



Dollar per serving difference between most and least expensive form of same vegetable

Source: ACNielsen Homescan data, 1999. Converted to servings using factors obtained from *The Food Buying Guide for Child Nutrition Programs*, U.S. Department of Agriculture, Food and Nutrition Service, revised November 2001.