

# How Americans Quench Their Thirsts

Grocery store shelves are filled with nonalcoholic beverages that vary widely in taste, calorie content, and nutritional makeup. Consumers choose which beverages to purchase based on their income and product prices, as well as individual preferences that are shaped by factors like age, education, and race/ethnicity. These choices have important implications for diet and health.

ERS researchers recently used ACNielsen Homescan data to examine how socioeconomic variables affect the mix of beverages purchased. Specifically, the study focused on purchases of milk, isotonic (sports drinks), bottled water, fruit juices and drinks, coffee, tea, carbonated soft drinks, and powdered soft drinks (Kool-Aid type drinks) from retail stores. (Beverages bought in restaurants or other away-from-home eating places were not examined.) Purchases like coffee, tea, and powdered drink mixes were converted into ready-to-drink equivalents to compare quantities. Although the study used 1999 purchase data, food consumption trends change slowly over time—ERS's 2003 food consumption data show similar patterns. Carbonated soft drinks were bought most heavily, followed by coffee, milk, and powdered soft drinks.

Researchers contrasted purchases of higher income households (incomes above 130 percent of the poverty level) with purchases of lower income households (incomes below 130 percent of the poverty level). Lower income households bought more powdered soft drinks (21 gallons per household in 1999 vs. 18 gallons) and tea (16 gallons vs. 15 gallons) and less milk (33 gallons vs. 36 gallons) and fruit juices (11 gallons vs. 14 gallons). The beverages for which the lower income households had higher purchases were

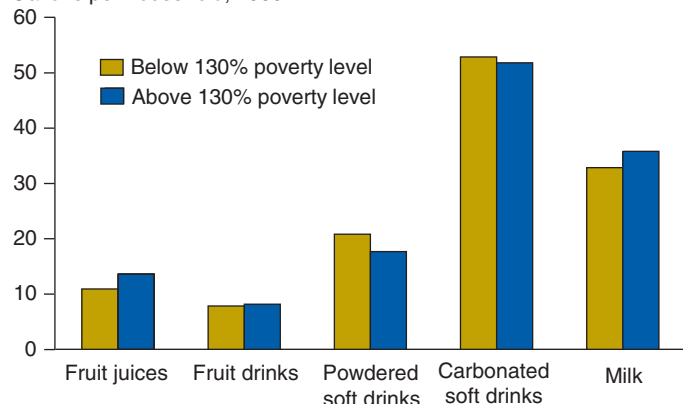
cheaper: The Homescan households paid \$0.96 per gallon for powdered soft drinks and \$1.81 per gallon for tea, while they paid \$3.06 per gallon for milk and \$4.40 per gallon for fruit juices. The more affordable beverages contained more calories and caffeine and less calcium and vitamin C. Lower income and higher income households bought roughly the same amount of fruit drinks (about 8 gallons) and carbonated soft drinks (about 52 gallons).



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## Soft drinks are the beverage of choice for Americans

Gallons per household, 1999



Source: Calculated by USDA, Economic Research Service using ACNielsen Homescan data.

Racial differences exist as well, with Black households buying more powdered soft drinks than other racial groups. Also, households headed by a female without a high school degree bought more powdered soft drinks than other households.

Researchers also examined the contribution of nonalcoholic beverages to nutrient intake by calculating per capita amounts of selected nutrients available from beverage purchases. Averaged across households in the survey, at-home beverage purchases provided 10 percent of daily calories (based on a standard of 2,000 calories), about 20 percent of the recommended daily intake of calcium, and close to 70 percent of the recommended daily intake of vitamin C.  $\mathbb{W}$

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**This finding is drawn from...**

*Contributions of Nonalcoholic Beverages to the U.S. Diet*, by Oral Capps, Jr., Annette Clauson, Joanne Guthrie, Grant Pittman, and Matthew Stockton, ERR-1, USDA, Economic Research Service, March 2005, available at: [www.ers.usda.gov/publications/err1/](http://www.ers.usda.gov/publications/err1/)

# Diet Quality Usually Varies by Income Status

A recent ERS study of Americans' diets found that low-income groups tended to have lower quality diets than high-income groups. Not only does a higher income expand food choices, it is also related to factors that tend to improve diet quality, including higher education, better access to well-stocked grocery stores, and greater diet and health knowledge. This result, however, did not hold for children—diet quality among U.S. children did not vary by income.

The ERS study is based on the Healthy Eating Index (HEI), as computed by USDA's Center for Nutrition Policy and Promotion using consumption data from the 1988-94 National Health and Nutrition Examination Survey. The HEI, scored from 0 to 100, measures an individual's quality of diet based on 10 components, with higher scores closely conforming to recommendations of the Food Guide Pyramid prior to its 2005 revision.

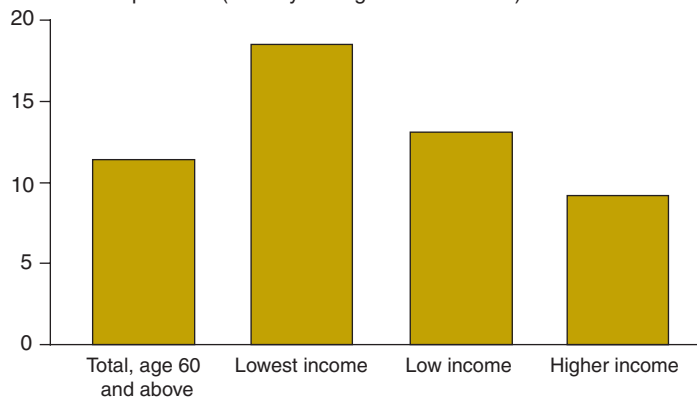
Twelve percent of Americans age 2 and older had "good" diets (an HEI score above 80), while the rest had diets that were poor in quality or needed improvement. Only 8 percent of people with very low household income (below 131 percent of poverty level) had good diets. Limiting fat and sodium intake and consuming the recommended servings of fruits and vegetables were particularly difficult dietary tasks for the lowest income Americans.

The diet quality of Americans age 60 and older varied the most by income status. Although older Americans' dietary quality was higher on average than that of the general population, their diet quality suffered the most as income fell. Nineteen percent of older Americans with very low household income had poor diet quality (an HEI score below 51), compared with 13 percent of low-income (between 131 and 185 percent of poverty level) older adults, and 9 percent of those with incomes above 185 percent poverty level.

The proportion of children who had poor diets did not vary by income. Overall, 16 percent of school-age children (ages 5-17) had poor diets. A number of factors could contribute to this find-

## Older Americans' diet quality varies with income

Percent with poor diet (Healthy Eating Index below 51)



Source: National Center for Health Statistics, Centers for Disease Control and Prevention, National Health and Nutrition Examination Survey, 1988-94.

ing. First, child nutrition programs, such as WIC, free or reduced-price school lunches, and subsidized meals in day care, could reduce variation in diet quality by income. Second, parents and other child-care providers may pay more attention to the dietary recommendations for children under their care than for themselves, and it may be easier to enforce good eating habits for one's children than to adhere to them oneself. Evidence suggests that as children age and make more of their own food choices, they, too, may find it harder to keep good eating habits—only 8 percent of children ages 2-4 had poor diets, versus 16 percent of school-age children. *W*

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**This finding is drawn from . . .**

*Nutrition and Health Characteristics of Low-Income Populations:*

*Healthy Eating Index*, by Biing-Hwan Lin, AIB-796-1, USDA,

Economic Research Service, February 2005, available at:

[www.ers.usda.gov/publications/aib796/aib796-1](http://www.ers.usda.gov/publications/aib796/aib796-1). A series of related publications is available at: [www.ers.usda.gov/publications/aib796/](http://www.ers.usda.gov/publications/aib796/)



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