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## Consumers Willing To Pay a Premium for Organic Produce

Consumers are buying organic food despite its generally higher price tag. Retail sales of organic food increased from \$3.6 billion in 1997 to \$18.9 billion in 2007, accounting for over 3 percent of total U.S. food sales. According to the *Nutrition Business Journal*, organic food sales could reach an estimated \$24 billion in 2010. Among the organic food categories, fruit and vegetable sales were the largest (\$6.9 billion), almost 37 percent of organic sales in 2007.

ERS researchers estimated price premiums for 10 popular fresh organic fruit and vegetables. These price premiums reflect consumers' willingness to pay for attributes and additional production costs associated with organic foods, such as organic certification and the lack of pesticides during production.

### Organic price premiums vary among fresh produce

	Price premium (%)	Organic share of sales (%)
Potatoes	62.2	0.8
Grapes	35.1	1.2
Strawberries	40.3	1.6
Onions	23.0	1.7
Peppers	36.7	1.8
Bananas	27.5	2.3
Oranges	22.0	2.3
Tomatoes	16.6	3.2
Apples	31.8	3.3
Carrots	17.2	11.1

Note: Organic produce are identified by the presence of the USDA organic seal or organic-claim codes created by Nielsen.

Source: Calculated by USDA, Economic Research Service using Nielsen Homescan Consumer Panel data, 2006.

Traditionally, organic premiums have been calculated using surveys that ask consumers how much more they would pay for organic foods over conventional foods. The ERS study, however, used actual consumer purchase data to estimate a pricing model that accounts for various product attributes, market factors, and consumer sociodemographics. Data were obtained from Nielsen, a market research firm that recruits a panel of households to record their food purchases from grocery stores and other retail outlets.

The research found that organic fresh fruit commanded a significant price premium, varying from 13 cents per pound for bananas in 2006 to 88 cents per pound for strawberries. The per pound premium for fresh vegetables ranged from 19 cents for onions and carrots to 54 cents for peppers. Organic price premiums converged in the range of 13-36 cents per pound for 7 of the 10 fresh produce items considered in the study. For fruit, the estimated organic premiums varied from 22



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percent for oranges to 40 percent for strawberries. For vegetables, organic premiums varied from about 17 percent for tomatoes and carrots to 62 percent for potatoes.

Premiums reflect both consumer demand and available organic supply. Increased demand or tight supplies drive up price premiums, which, in turn, can translate into lower sales relative to the non-organic commodity, and this is true for some of the produce items examined. For example, potatoes commanded the highest organic price premiums and also accounted for a low share of total fresh potato sales (less than 1 percent). Similarly, carrots had one of the lowest organic premiums and a high organic share of the carrot market (11 percent). For other fruit and vegetables, such as onions and apples, this relationship is not as strong, inferring that many factors affect the magnitude of organic price premiums and market share.  $\mathcal{W}$

**Travis A. Smith, [tsmith@ers.usda.gov](mailto:tsmith@ers.usda.gov)**

**Biing-Hwan Lin, [blin@ers.usda.gov](mailto:blin@ers.usda.gov)**

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

"Organic Premiums of U.S. Fresh Produce," by Biing-Hwan Lin, Travis A. Smith, and Chung L. Huang, in *Renewable Agriculture and Food Systems*, 23(3): 208-216, 2008.

## Higher Food Prices Can Take a Bite Out of SNAP Benefits

Rising prices can erode the purchasing power of benefits provided through government assistance programs. To help protect program participants from the effects of higher prices, many government benefits, including those from the Supplemental Nutrition Assistance Program (SNAP, formerly the Food Stamp Program), are adjusted annually for inflation. In periods of steeply rising food prices, however, the timing of annual adjustments may result in periods of the year when SNAP benefits are inadequate for purchasing the nutritious diet designed by USDA as the basis for benefits.

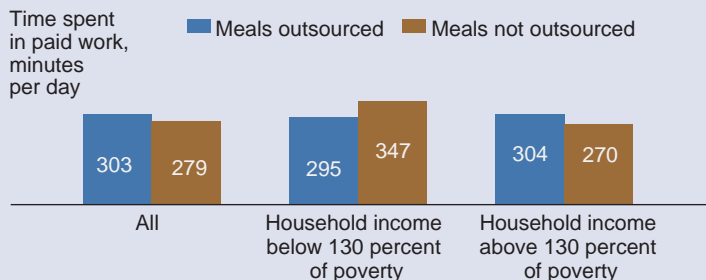
SNAP is designed to provide low-income families with increased purchasing power to obtain foods that make up a low-cost, nutritionally adequate diet. The maximum monthly SNAP benefit amounts are based on the cost of the Thrifty Food Plan—a market basket of foods which, if prepared at home, would provide a complete, nutritious diet at minimal cost. Households with no or minimal incomes receive the maximum benefit amount. Benefits are less for higher income eligible households, and these households are expected to spend some of their own money on food.

## Working Parents Outsource Children's Meals

Virtually all households take the dollar cost of food into account when making food choices. But for some households, the time involved in planning, shopping for, and preparing a meal is also an important consideration. Findings from the Eating & Health Module of the American Time Use Survey (ATUS) indicate that many working parents free up time by "outsourcing" their children's meals—that is, they purchase prepared meals for their children at school or day care.

In 2007, principal meal preparers in households with individuals younger than age 19 were asked whether any of the children or youths ate a breakfast and/or lunch prepared at a school, a paid day care or Head Start center, or a summer day program in the week before the

### For most households with children and an employed principal meal preparer, more time at work corresponds with greater outsourcing of children's meals



Notes: Data include civilian population age 19 or over. 130 percent of poverty is the gross income limit to qualify for free school meals.

Source: Calculated by USDA, Economic Research Service using data from Bureau of Labor Statistics' 2007 ATUS and ERS 2007 Eating & Health Module.



Ken Hammond, USDA

## FINDINGS

survey interview day. Having their children eat meals prepared at school or day care can save households time otherwise spent preparing and packing meals at home. Time savings may be valuable to households with principal meal preparers employed in paid work, especially the more hours they work. ATUS data indicate that employed meal preparers who took

advantage of prepared meals at school or day care spent more time in paid work (303 minutes per day, or 5 hours) than those who did not (279 minutes, or 4.6 hours).

This result held across most income levels, except for households at the lowest income level. Among households with incomes qualifying them for free meals, employed people who prepared meals and who did not obtain meals for their children from school or day care worked longer hours (347 minutes, or 5.8 hours) than those who did obtain meals (295 minutes, or 4.9 hours). The reverse was true for higher income groups.

Why are low-income families who work more hours less likely to obtain school or day care meals for their children? One possibility is that the low-income households in the survey were more likely to have children ages 5 and younger. Preschoolers are the least likely to eat outsourced meals because participation in day care centers that provide meals is not as universal as school attendance.  $\mathcal{W}$

Joanne F. Guthrie, [jguthrie@ers.usda.gov](mailto:jguthrie@ers.usda.gov)

Ket McClelland, [ksdolan@ers.usda.gov](mailto:ksdolan@ers.usda.gov)

### This finding is drawn from . . .

ERS Eating & Health Module of the American Time Use Survey (ATUS), available at: [www.ers.usda.gov/data/atus/](http://www.ers.usda.gov/data/atus/)

SNAP benefits are adjusted annually in October (the beginning of the fiscal year), based on the 12-month food price change measured in June. SNAP benefits lag food price changes. If food prices increase, program participants may experience a shortfall in benefits even at the start of the new fiscal year: the benefit adjustment that takes effect on October 1 does not account for nearly 4 months of price changes (mid-June to the end of September). And, since the adjustment is made only once a year, nearly 16 months of food cost changes occur before the next benefit adjustment.

Prices for the Thrifty Food Plan basket rose 9.3 percent between October 2007 and September 2008. ERS researchers estimate that the shortfall in the caseload-weighted maximum benefit for the program grew from \$7 per household in October 2006 to \$19 in September 2007. And the shortfall grew from almost \$8 in October 2007 to \$38 by September 2008. In an average month, SNAP households faced shortfalls of \$12 in FY

2007 and \$22 in FY 2008, representing losses in food purchasing power of 4 percent and 7 percent, respectively, of the maximum household benefit.

Alternative adjustment methods can reduce the shortfall but will raise program costs. ERS estimates that adjusting benefits semiannually would have reduced the loss in food purchasing power for the maximum benefit by 20 percent in 2007 and 26 percent in 2008. Implementation of this alternative would have increased benefits by \$330 million in 2007 and \$789 million in 2008.  $\mathcal{W}$

Kenneth Hanson, [khanson@ers.usda.gov](mailto:khanson@ers.usda.gov)

Margaret Andrews, [mandrews@ers.usda.gov](mailto:mandrews@ers.usda.gov)

### This finding is drawn from . . .

*Rising Food Prices Take a Bite Out of Food Stamp Benefits*, by Kenneth Hanson and Margaret Andrews, EIB-41, USDA, Economic Research Service, December 2008, available at: [www.ers.usda.gov/publications/eib41/](http://www.ers.usda.gov/publications/eib41/)



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