

FINDINGS

Carrot Consumption Varies With Age, Income, and Race

People choose which vegetables to eat based on vegetable prices and individual incomes and preferences, which reflect

certain demographic characteristics, such as people's age, education, race/ethnicity, and where they live. These demographically shaped preferences are noticeable in the consumption patterns for one long-time American favorite—the carrot.

Carrots are a favorite American vegetable because of their versatile culinary uses and rich nutritional content. They are a common ingredient in stews, soups, stir-fry dishes, and salads. The development of convenient, fresh-cut carrot products, such as baby carrots, has helped secure the carrot's place as a healthy snack option and lunch-box mainstay. A recent ERS study examines where and how many fresh and processed carrots are eaten and links this consumption to various economic, social, and demographic characteristics of consumers.

In 2006, the amount of carrots available for U.S. consumption stood at 12.0 pounds per person—8.7 pounds of fresh carrots and 3.3 pounds in canned, frozen, or other processed uses. For both fresh and processed carrots, retail sales for at-home consumption dominated. The away-from-home market accounted for 2.2 pounds per person, with more than half of that consumed at sit-down restaurants.

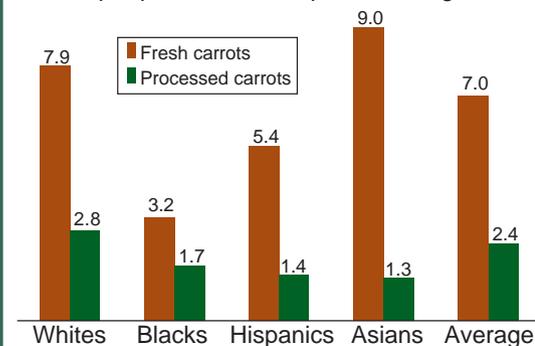
Using data from nationally representative surveys, ERS researchers found that preferences for carrots vary by race and ethnicity, age, and income. Non-Hispanic Whites ate 10.7 pounds of carrots per person at home in 2005, and Asian Americans ate 10.3 pounds per person. Asian Americans ate the most fresh carrots among the racial/ethnic groups (9.0 pounds per person). Non-Hispanic Blacks consumed 3.2 pounds per person of fresh carrots but were the second largest consumers of processed carrots at 1.7 pounds per person.

At-home carrot consumption rises with age and income. For example, those 65 and older ate 13.3 pounds of carrots per person in 2005, compared with 6.8 pounds per person for those younger than 40. Households with incomes over 350 percent of the Federal poverty level consumed 11.1 pounds of carrots per person, compared with 7.8 pounds per person in households with incomes below 185 percent of the poverty level.

America's appetite, like its population, is always changing. The country is becoming more ethnically diverse, with an influx of Hispanic Americans who tend to eat fewer carrots than the national average. At the same time, the U.S. population is growing wealthier, older, and more educated, factors which bode well for greater carrot consumption. \mathcal{W}

Carrots are more popular with Whites and Asians

Pounds per person, fresh-equivalent weight



Source: 2005 consumption derived from ERS Food Availability data and USDA's Continuing Survey of Food Intakes by Individuals, 1994-96 and 1998.



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Informing Food and Nutrition Assistance Policy

Since 1998, Congress has provided ERS with funds to study and evaluate the Nation's 15 domestic food and nutrition assistance programs. These programs provide participants with food, the means to purchase food, and nutrition education. In recent years, about one in five Americans, at some time during the year, have participated in at least one of these assistance programs, which account for over half of USDA's annual budget.

ERS established the Food Assistance and Nutrition Research Program (FANRP) to carry out the evaluation. Findings from FANRP studies include the following:

- A 1-percentage-point increase in the Nation's unemployment rate results in about 700,000 more food stamp recipients during the year following the increase.
- Over half of all new entrants in the Food Stamp Program exit the program within 8 months.
- In 2006, 11 percent of U.S. households were food insecure, including about 30 percent of households headed by single women with children.

Food Stamp Benefits Provide Fiscal Stimulus

The Food Stamp Program is one of the Federal Government's countercyclical assistance programs—expanding benefits during an economic downturn and decreasing benefits during an economic expansion. In fiscal year (FY) 2007, USDA provided \$30.4 billion in food stamp benefits to needy Americans. During a downturn, the program is an automatic fiscal stimulus, without congressional action, by providing benefits to new participants. For example, food stamp benefits increased by about \$6 billion (in 2007 dollars) between FY 2000 and FY 2003, as participation rose during the recession of 2001.

An increase in food stamp benefits was considered in early 2008 as part of a fiscal stimulus package in response to a potential economic downturn. In these proposals, food stamp benefits to recipients would be temporarily increased beyond current levels. Increasing benefits would provide an immediate stimulus because food stamp recipients are likely to spend the additional benefits quickly and fully. While the

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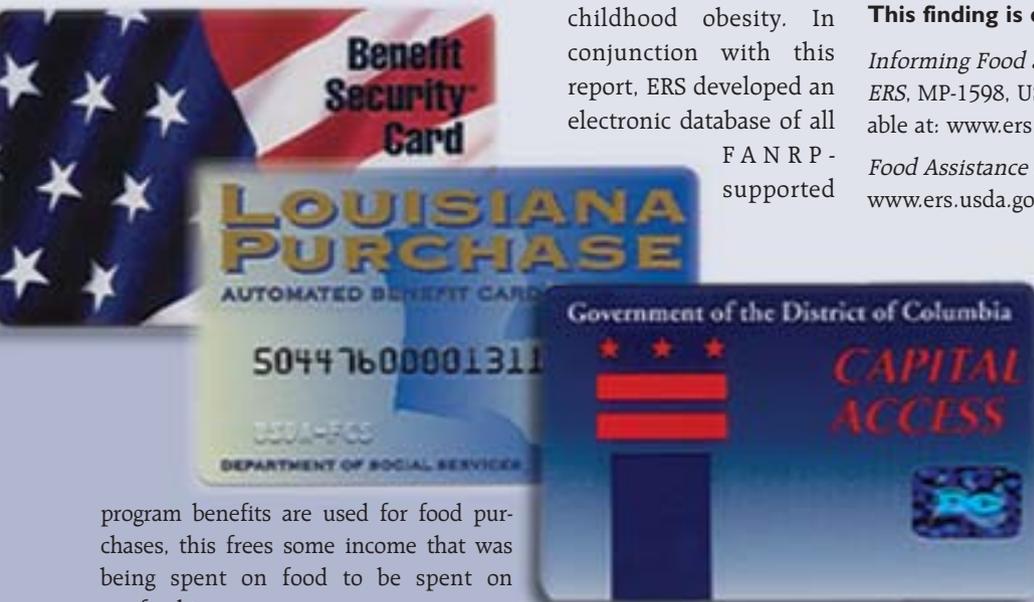
Factors Affecting Carrot Consumption in the United States, by Gary Lucier and Biing-Hwan Lin, VGS-319-01, USDA, Economic Research Service, March 2007, available at: www.ers.usda.gov/publications/vgs/2007/03mar/vgs31901

These and other FANRP findings have informed public debate on food and nutrition assistance programs. For example, one FANRP-sponsored study found that maternal obesity in early pregnancy more than doubles a child's risk of obesity at ages 2-4. As a result of this study, a new nutrition risk criterion—"at risk of becoming overweight"—was added to the criteria used to establish participation eligibility in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). Low-income infants and preschoolers born to mothers who were obese in early pregnancy are now eligible for nutrition education and WIC-approved foods.

A recent ERS report highlights some of the key research findings from over 600 publications completed during the program's first decade. The report discusses research on food and nutrition assistance programs' effects on the diets and economic well-being of needy Americans, how well program benefits are targeted and delivered, and the efficiency and effectiveness of program administration.

The report also discusses research on a number of topics that cut across programs, including linkages with the economy, food security,

welfare reform, and childhood obesity. In conjunction with this report, ERS developed an electronic database of all FANRP-supported



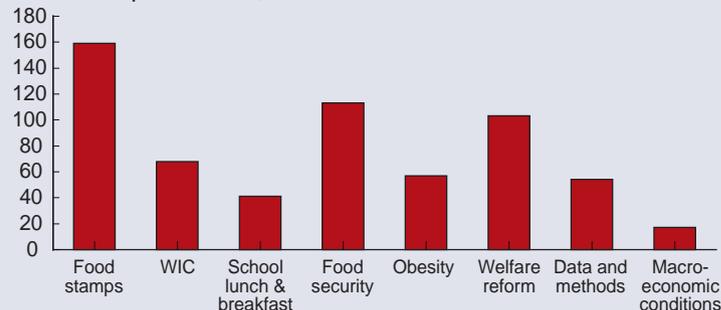
program benefits are used for food purchases, this frees some income that was being spent on food to be spent on nonfood items.

The increased benefits stimulate the economy through a succession of effects. The rise in food stamp benefits increases spending by recipient households, which in turn stimulates production. Higher production boosts demand for workers and/or hours worked and income of households throughout the economy. Increased household income triggers additional spending. Totalling the succession of effects, higher food stamp benefits can increase overall production and income by *more* than the initial expenditure—a "multiplier" effect.

ERS investigated the economic effects of a temporary increase in the monthly maximum food stamp benefit allotment (currently \$542 per month for a household of four). Using a microsimulation model developed by USDA's Food and Nutrition Service, ERS researchers estimated the increase in food stamp benefits, and then used these estimates in an ERS input-output multiplier model to estimate the additional economic activity stimulated by the increase in benefits. The analysis assumed that

FANRP-sponsored research spans wide array of topics

Number of publications, FY 1998-2007



Source: USDA, Economic Research Service.

reports and articles, searchable by topic, title, lead author, and the data used. 

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This finding is drawn from...

Informing Food and Nutrition Assistance Policy: 10 Years of Research at ERS, MP-1598, USDA, Economic Research Service, December 2007, available at: www.ers.usda.gov/publications/mp1598/

Food Assistance and Nutrition Programs: FANRP Research Findings, www.ers.usda.gov/briefing/foodnutritionassistance/researchfindings/

the number of households participating in the program did not change and that the monthly maximum allotment was increased for 12 months. If the increase is for fewer months, the indirect multiplier effects may not fully occur.

If the maximum allotment amount were increased by 10 percent for 1 year, annual food stamp benefits would rise by \$3.94 billion, resulting in a direct increase in total spending of the

same amount. After the sequence of multiplier effects is completed, total economic activity would increase an estimated \$7.25 billion. A 20-percent increase in the maximum allotment would increase food stamp benefits by \$7.9 billion, and total economic activity by \$14.5 billion. 

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This finding is drawn from...

Tracing the Impacts of Food Assistance Programs on Agriculture and Consumers: A Computable General Equilibrium Model, by Kenneth Hanson, Elise Golan, Stephen Vogel, and Jennifer Olmstead, FANRR-18, USDA, Economic Research Service, May 2002, available at: www.ers.usda.gov/publications/fanrr18/