



# ERS Information

News on agriculture, food, the environment, and rural America

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Economic Research Service

## Measuring Children's Food Security in U.S. Households, 1995-99 *(FANRR-25)*

[www.ers.usda.gov/publications/fanrr25/](http://www.ers.usda.gov/publications/fanrr25/)

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The use of household surveys to measure the food security status of children is an essential tool for monitoring food insecurity and hunger at the most severe levels in U.S. households and for assessing programs designed to prevent or ameliorate these conditions. A tool for this purpose, the "children's food security scale" has been developed by the U.S. Department of Agriculture. The children's food security scale is based on 8 questions in the 18-item food security survey module that ask specifically about food-related experiences and conditions of children. It measures the severity of food insecurity among children in surveyed households and identifies households in which children were hungry at times during the previous year because the household lacked enough money for food.

Applied to survey data from the nationally representative Current Population Survey Food Security Supplements, the new measure indicates that during the year ending in April 1999, children were hungry at times in 219,000 U.S. households, or 0.6 percent of all households with children. The corresponding statistic for the year ending in August 1998 was 331,000 households, representing 0.9 percent of all households with children.

To provide more stable prevalence estimates for subpopulations, statistics are averaged across 2 years, 1998-99. The average annual prevalence of hunger among children during this 2-year period was 0.7 percent. The prevalence of hunger among children was higher in single-mother families (1.8 percent) and in families headed by Blacks (1.3 percent) and Hispanics (1.4 percent).

The prevalence rate of children's hunger declined from 1995, when household food security and hunger were first measured nationally in the United States, to 1999. During this period, the prevalence of children's hunger declined by about half, from 1.1 percent of all households with children in 1995 to 0.6 percent in 1999. The fall in hunger prevalence among children extended to all major demographic and income categories, including those most vulnerable to hunger.

The children's food security scale is assessed statistically and found to be adequately reliable and to be stable across years. The scale is compared with the household-level food security scale, and discrepancies between the two scales are found to result from identifiable household characteristics, especially the

ages of children. Details are provided on how to calculate the children's food security scale from the questions in the standard food security survey module.

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## The ERS Mission

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- a globally competitive agricultural production system
- a safe and secure food production system
- a healthy and well-nourished public
- harmony between agriculture and the environment
- enhanced economic opportunity and quality of life for rural Americans

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## **America's Changing Appetite: Food Consumption and Spending to 2010**

U.S. food expenditures are projected to rise 26 percent, or \$208 billion, between 2000 and 2020. Income growth and population growth will drive increases in per capita food expenditures and food demand, respectively. The demand for value-added products will increase the share of every food dollar that goes to processors and retailers, and the demand for quality-differentiated products may result in new markets for high-quality or specialty crops. The aging of the U.S. population may have a slight negative effect on per capita consumption and away-from-home food expenditures.

Ethnic shifts and increased education levels among the U.S. population are likely to increase per capita consumption of certain food categories, such as fruit and fish. *Noel Blisard; (202) 694-5445; nblisard@ers.usda.gov*

## **Population Growth and Demographic Change, 1980-2020**

The U.S. population of 281 million in 2000 will increase by 50-80 million by 2020, according to U.S. Census projections. Over the next two decades, the Nation's Hispanic population is expected to grow by 1.2 million annually, compared with annual growth of 500,000 among non-Hispanic Whites and 400,000 each among Blacks and Asians. Due to the aging baby boom generation, the number of Americans older than age 65 will jump from 35 million in 2000 to 54 million in 2020. Average household size, which fell from 2.8 persons in 1980 to 2.5 persons in 2000, will shrink to 2.4 persons in 2020. A projected 86 percent of the U.S. population will have a high school degree and 26 percent will have finished college in 2020. *John Cromartie; (202) 694-5421; jbc@ers.usda.gov*

## **New Health Information is Reshaping Food Choices**

Several studies have shown that information linking diet and health influences consumers' food choices. Between 1955 and 1987, the increase in information linking cholesterol and heart disease resulted in decreased per capita consump-

tion of shell eggs by 16-25 percent. Between 1966 and 1988, health information increases led to decreased consumption of pork and increased consumption of poultry and fish. Increases in health information have also resulted in decreases in whole milk consumption and increases in low-fat milk consumption. Studies have also shown that nutrition knowledge differences among consumers translate into measurable differences in food and nutrient intake. *Jayachandram Variyam; (202) 694-5457; jvariya@ers.usda.gov*

## **Changing Consumer Demands Create Opportunities for U.S. Food System**

Different sectors of the food system are competing to identify and provide more processed and higher value foods. Food retailers are offering a broader variety of healthful, ethnic, and more convenient foods in a wider variety of formats. Nontraditional food retailers, such as supercenters and warehouse club stores, satisfied consumers' desires for convenience and economy and increased their share of at-home food expenditures to 24.5 percent in 2000. Full-service restaurants, which offer the most amenities, are the fastest growing restaurant segment. Fast-casual restaurants, which combine attributes of full-service and limited service establishments, have emerged to satisfy a variety of consumer demands. *David Davis; (202) 694-5382; ddavis@ers.usda.gov*

## **Food Product Introductions Continue to Decline in 2000**

New food product introductions, which peaked at nearly 17,000 in 1995 in the United States, dropped to just over 9,000 in 2000, the fifth consecutive year of decline. Product introductions in 2000 were down in all food categories, compared with 1995. The top five categories in 2000—candy/gum/snacks, condiments, beverages, bakery products, and dairy—declined significantly over the 5-year period. New "all-natural" food products increased 178 percent from 1995 to 2000, while new organic products increased 57 percent. Reduced- and low-fat products more than doubled between 1999 and 2000. Small- and medium-sized food manufacturers introduced 86 percent

of new products in 2000. *J. Michael Harris; (202) 694-5386; jharris@ers.usda.gov*

## **Innovation by Food Companies Key to Growth and Profitability**

To profit in today's marketplace, many food firms are reshaping how they work together with other members of the food supply chain as well as how they organize themselves as individual companies. For example, food retailers are working more closely with distributors and manufacturers to manage product mix and replenish stock. The foodservice industry is promoting standard product identification codes. Initiatives in both food retailing and food service depend heavily on information technology. Firms at each stage of the supply chain are also adjusting the size and scope of their operations.

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## **Farm Business Practices Coordinate Production with Consumer Preferences**

Consumer pressures on agriculture for variety, quality, and safety of food are affecting how the industry is organized. Farm production is becoming more capital intensive, with emphasis placed on value added. Contract production is increasing, as processors and distributors attempt to ensure steady supplies of goods, improved quality control, and traceback capabilities. Farmers are turning to the Internet and other high-tech resources to keep pace with changing consumer demands. Some farmers have formed new-generation cooperatives to gain more control over the stages of food production. The food industry has increased use of third-party verification to certify products' quality attributes.

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## **U.S. Food Sector Linked to Global Consumers**

Foreign markets are likely to be an important source of future sales growth for the U.S. food sector. Rising incomes in low- and middle-income countries translate into increased demand for food items, such as meat, and increased food expenditures. U.S. exports of high-value

*continued on page 5*

**Electric Market Restructuring: Issues for Rural America**

Deregulation can create new opportunities for rural America, but it may also introduce new costs. Rural areas are susceptible to changes in the industry that increase electricity costs because such areas are already expensive to serve, and the cooperatives that serve them tend to be small. This article discusses four electricity deregulation issues of importance to rural areas: transmission pricing and investment, retail competition, market power and mergers, and distributed generation. *Constance Newman; (202) 694-5598; cnewman@ers.usda.gov*

**Small Town Development in China: A 21st Century Challenge**

China is placing a high priority on urbanizing and raising the incomes of its huge rural population. The government is pursuing a strategy that seeks to channel rural people into small cities and towns rather than large cities. This strategy faces challenges in creating jobs for new residents and financing new town construction. Farms and businesses in rural America may increasingly compete and do business with their counterparts in rural China as trade between the two countries increases. *Fred Gale; (202) 694-5215; fgale@ers.usda.gov*

**Economic Strain and Community Concerns in Three Meatpacking Communities**

Immigration is changing the face of rural America, and employment in the food processing industry is a major draw to the rural Midwest. This article compares perceptions of economic strain, community concerns, community services, and nutritional well-being between long-term community residents and Hispanic immigrants in three rural Nebraska meatpacking communities. Several patterns emerged. Long-term residents reporting greater personal economic strain also reported poorer nutrition and those reporting more concern with community issues (e.g., language barriers) also reported greater diffi-

culty obtaining community services (e.g., food assistance, affordable housing). Immigrants reporting greater economic strain also reported more concern with community issues and poorer nutrition. *Rochelle L. Dalla; (402) 554-2356; rdalla@mail.unomaha.edu*

**Expenditures on Children by Rural Families**

Total expenditures on a rural child have increased from 1960 to 2000. Food expenses have decreased, but health care and child care/education expenses have increased even more. In 2000, middle-income families in rural areas spent \$156,720 to raise a child up to age 18, whereas those in urban areas spent \$169,130. Health care rose from 4 to 8 percent and child care/education rose from 2 to 11 percent of childrearing expenses from 1960 to 2000. These trends highlight the importance of updating the expenditure base of USDA's cost of raising a child series. *Mark Lino; (202) 605-0251; mark.lino@cnpp.usda.gov*

**Macroeconomic Trends: U.S. Economy in Recovery, Although Rural Areas Still Affected by Recession**

The end of the technology boom, lower manufacturing activity, and the strong dollar triggered the start of recession, which was worsened by world events following September 2001. Nonmetro areas were particularly affected by the manufacturing slowdown and the loss of exports. Regions such as the Southeast, Pacific Northwest, and North Atlantic have been especially hard hit by layoffs. *David A. Torgerson; (202) 694-5334; dtorg@ers.usda.gov*

**Employment and Unemployment: Rural Employment Turned Down in 2001 as Unemployment Continued to Climb**

Reflecting the weaker economy, rural America ended its long period of growth in 2001 and unemployment began to rise. Rural employment turned negative in the

second quarter of 2001 and unemployment has been rising since 2000. Metro trends have been similar, although in recent years metro employment growth has been faster and unemployment lower. *Lorin Kusmin; (202) 694-5429; lkusmin@ers.usda.gov*

**Rural Updates:****Food and Fiber System Employment and Value Added: Food and Fiber System Important Part of Economy**

The food and fiber system accounted for 17.1 percent of total employment and 12.8 percent of the gross domestic product (GDP) in 2000. Although these percentages have declined somewhat over the past decade, the food and fiber system added a record \$1.3 trillion to the GDP in 2000. *William Edmondson; (202) 694-5374; wedmonds@ers.usda.gov*

**Economic Activity Triggered by Food and Agricultural Trade: Food and Agricultural Exports Increased in 2000 at a Greater Rate Than Imports, Reversing 5-Year Trend**

Economic activity generated by agricultural exports grew to \$127.3 billion in 2000, aided by rising exports. New this year are estimates for food trade, which exclude nonfood agricultural exports such as cotton and tobacco but include fish products and distilled spirits, which are not counted as agricultural. Food exports generated \$116 billion in economic activity in 2000. *William Edmondson; (202) 694-5374; wedmonds@ers.usda.gov*

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# Bank Market Structure and Local Employment Growth *(TB-1900)*

[www.ers.usda.gov/publications/tb1900/](http://www.ers.usda.gov/publications/tb1900/)

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A growing body of empirical literature has established a linkage between the market structure of the financial intermediation sector and economic growth rates. The general conclusion of this literature has been that a larger, deeper, or more efficient financial intermediation sector tends to be associated with more rapid growth rates of per capita income. Previous ERS research suggests that mergers or acquisitions of local banks by nonlocal banks need not impair local economic growth and may even have beneficial effects in rural markets, with the possible exception of farm-dependent areas. However, possible associations between banking structure and other aspects of macroeconomic activity including employment growth were neglected in earlier studies.

This report explores the empirical linkages between growth rates in total local employment and the structure of local bank markets (ownership, deposit control, and concentration) and their level of geographic deregulation. These linkages are of interest for two reasons. First, local communities, their leaders, and policymakers are all sensitive to employment growth and contraction. These constituencies want to know if nonlocal ownership of bank offices or nonlocal control of the deposit base (and, therefore, geographic deregulation of banking) is associated with faster or slower rates of employment growth. Second, the identification of plausible mechanisms by which banking structure may influence the growth rates of per capita income might further strengthen

our confidence in the causal nature of the empirical association between banking structure and economic growth found by previous research.

With these ideas in mind, the authors explored both longrun and shortrun empirical linkages between banking structure and subsequent employment growth in local geographic markets in a nationwide sample spanning 1973-96. Our findings suggest that the initial number of bank offices, the relative market shares of banks, and the ownership structure of bank offices (local versus out-of-market) tend to be associated with subsequent longrun but not shortrun growth rates of local employment. Further, some of these linkages have shifted over time, and differ systematically in metropolitan versus nonmetropolitan markets. Consistent with previous research, we found no evidence that, on average, geographic deregulation, nonlocal bank office ownership, or nonlocal deposit control adversely impacted nonmetropolitan income or employment growth rates.

The observed linkages between the bank market structure and employment growth were in some cases quite different from those reported between bank market structure and income growth. In addition, the inclusion of contemporaneous employment growth rates did not substantially change the linkages between banking structure and either longrun or shortrun income growth rates. These findings suggest that job creation, while responsive to banking structure and important in its own right, is not a major channel by which banking structure stimulates per capita income growth.

The longrun regressions provided evidence that the growth rates of local employment tend to be associated with the initial numbers of bank offices, initial relative market shares of banks, and the initial ownership structure of banks (local versus out-of-market). Shortrun regressions generally failed to find a significant association between bank ownership and deposit control variables and employment growth in either metropolitan or nonmetropolitan markets. Mirroring the longrun results, employment grew faster in more concentrated nonmetropolitan markets but more slowly in more concentrated metropolitan markets. The shortrun regressions also showed a positive and economically significant association between geographic deregulation and employment growth. However, this association differed between metropolitan and nonmetropolitan markets. In nonmetropolitan markets, employment growth was more sensitive to the first stage of geographic deregulation (allowing nonlocal entry through mergers and acquisitions of existing banks), while the second stage of geographic deregulation (allowing nonlocal entry through *de novo* branching) was more important in metropolitan markets.

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## Food Review *continued from page 3*

foods may face competition from domestic industries overseas, but demand for ingredients to produce these foods, such as soybeans, will also increase. Global macro-economic conditions, such as economic growth rates of U.S. trading partners and currency exchange rates, will affect U.S. food exports. *Anita Regmi; (202) 694-5161; [aregmi@ers.usda.gov](mailto:aregmi@ers.usda.gov)*

### Food Assistance Expenditures Increase in 2001

In fiscal 2001, Federal expenditures for domestic food assistance programs grew 4 percent, to \$34 billion, the first increase in annual food assistance expenditures since fiscal 1996. The Food Stamp Program accounted for much of the increase in fiscal 2001 expenditures, as declining economic conditions in the

United States increased the number of people receiving food stamps. However, nearly all of the individual programs comprising the Nation's food assistance system expanded to varying degrees in fiscal 2001. *Victor Oliveira; (202) 694-5434; [victoro@ers.usda.gov](mailto:victoro@ers.usda.gov)*

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# Food Assistance and Nutrition Research Small Grants Program: Executive Summaries of 2000 Research Grants

(FANRR-20)

[www.ers.usda.gov/publications/fanrr20/](http://www.ers.usda.gov/publications/fanrr20/)

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This report summarizes research findings from the Food Assistance and Nutrition Research Small Grants Program. The Economic Research Service created the program in 1998 to stimulate new and innovative research on food assistance and nutrition issues and to broaden the participation of social science scholars in these issues. The report includes summaries of the second set of small grants, awarded for 1-year research projects in the summer and fall of 1999, which focus on food security, hunger, and public- and private-sector efforts to aid low-income residents of the United States through food and nutrition assistance.

Federal food and nutrition assistance programs—food stamps; the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC); the school meals programs; and others—have been a major component of public assistance to the poor since their origins in the 1930s. Welfare reforms enacted in the mid-1990s increased the prominence of these programs in the social safety net for low-income households, and increased the demand among policymakers for accurate information on and a better understanding of program performance. The U.S. Department of Agriculture (USDA), as the Federal agency charged with administering food and nutrition assistance programs, has a particular interest in monitoring their effectiveness in alleviating food insecurity and contributing to the Federal policy goal of a healthy, well-nourished population.

In 1998, USDA's Economic Research Service (ERS) responded to the new public assistance environment and new information needs by creating the Small Grants Program for Food and Nutrition Assistance Research. The purpose of the program is to stimulate new research on food and nutrition policy issues and to broaden the participation of social science scholars in the research effort. Grant

recipients come from a number of disciplines and employ a variety of approaches in their research. They include economists, sociologists, nutritionists, anthropologists, and public health professionals. Some conduct exploratory research using ethnographic methods to examine underlying factors influencing program participation and outcomes. Others use descriptive statistics to characterize the populations of interest. Still others use statistical models to analyze program behavior. All the methods employed contribute to a growing body of knowledge on the food needs, coping behaviors, and food program outcomes of low-income families and individuals.

The first of these is food security. The development over the last several years of a widely accepted and consistent food security measure is making it possible to monitor changes in the food security status of U.S. households and individuals, and to examine the impacts of economic change and policy interventions on food security. Two of the research projects reported here consider food sufficiency status (a more narrowly defined concept than the USDA food security measure), assessing its relationship to physical and mental health in one case (Siefert et al.) and to nutrient intakes in the other (Connell et al.). The other two projects take up issues of food security measurement. Derrickson summarizes her research and recommendations on the use of the food security measure in Hawaii, and Palmer Keenan et al. examine the potentially unsafe means by which some families and individuals maintain food security.

A second topic area concerns nutrition and food assistance programs. In this group, Kraak et al. examine low-income women's attitudes and beliefs about nutrient supplement use and the implications of allowing the purchase of supplements with food stamps. Cason et al. examine the effect of nutrition education on nutrient intakes and food sufficiency among food stamp recipients and low-income nonrecipients. Marquis et al. consider the

effects of food stamp receipt and acculturation on the diets and health of adult Hispanic Americans. The diets of Navajo preschool children are the focus of research conducted by Pareo and Bauer, in which they measure nutrient intake among children participating in the Head Start program. Perez-Escamilla and Haldeman investigate how low-income households use food labels and their knowledge of nutrition in conjunction with food stamps to affect diet quality.

The use and performance of public food assistance programs are the focus of the third topic area. Davis et al. confront the complex barriers to food assistance program use and achieving food security for residents of the Northern Cheyenne reservation. Mills et al. look for economic and programmatic explanations of Food Stamp Program exits among families headed by single women, some of whom are leaving the Temporary Aid to Needy Families (TANF) program but remain eligible for food stamps. Swenson et al. analyze the determinants of food stamp caseload changes in Texas, comparing the dynamics of caseloads in metro and non-metro counties in that State. Brien and Swann examine the joint effects of participating in WIC, the Food Stamp Program, and Aid to Families with Dependent Children (AFDC) on birth outcomes, where previous research has focused on the impact of WIC alone.

A final study occupies the fourth topic area of private food assistance. In this, Bartowski and Regis take a critical look at faith-based private food assistance and the Charitable Choice option, whereby States may contract with local charitable organizations, including churches, to provide social services.

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## Retail-Farm Price Margins and Consumer Product Diversity *(TB-1899)*

[www.ers.usda.gov/publications/tb1899/](http://www.ers.usda.gov/publications/tb1899/)

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For decades, economists have attempted to explain the decline of the share of the U.S. consumer food dollar allocated to farmers. A factor contributing to this decline is the increase in consumer demand for off-farm or marketing services for food. Declining farm shares are often reflected in rising retail-farm price margins. USDA's Economic Research Service (ERS) publishes estimates of retail-farm price margins. However, at the heart of these estimates is the assumption that a food market is comprised of identical firms producing, in fixed-factor proportions, a homogeneous set of final food products. While periodically adjusted to reflect diversity, these adjustments may lead to biased estimates of retail-farm price margins that can be interpreted as evidence of market power.

The key to the computation of the new estimates presented in this study is the evaluation of a single, market-level measure of composite consumer demand. We appeal to an expenditure-based measure, justified by the Generalized Composite Commodity Theorem, that can consistently reflect consumer demand for the many different elementary food products associated with a modern food market. This measure allows a direct link between consumer demand for diverse elementary products and food quality or, equivalently, marketing services. This is important because a competitive retail-farm price margin is the price that consumers are willing to pay for marketing services.

Annual data from 1980-97 for seven major U.S. food markets support the new estimates. Scatter plots of output and price ratios suggest diminishing returns or input substitution at the market level in the pork, poultry, egg, dairy, fresh fruit

and fresh vegetable markets, and technological change in the beef market. Evidence of diminishing returns at the market level supports the new estimates, as input substitution arises from both the diversity of technologies among firms and the diversity of final food products. Evidence of technical change also supports the new estimates since technical change is automatically incorporated into variable input-output ratios associated with the new estimates. The annual data indicate that both the current and new estimates follow similar trends, but that they respond differently to changing market conditions. In particular, we find that changes in the new estimates appear to be more 'in phase' with changes in food quality than the current estimates.

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## Tracing the Impacts of Food Assistance Programs on Agriculture and Consumers: A Computable General Equilibrium Model *(FANRR-18)*

[www.ers.usda.gov/publications/fanrr18/](http://www.ers.usda.gov/publications/fanrr18/)

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Changes in food assistance policy can have impacts on economic activity and household income across the economy. Using a Computable General Equilibrium (CGE) model focusing on food assistance, we found that both a hypothetical cut in food stamp benefits and a hypothetical cash-out of the Food Stamp Program led to reductions in food demand and farm production. In addition, the cut in food stamp benefits resulted in a decline in transfer income for low-income households that was not compensated for by increased labor income.

The cash-out triggered general equilibrium effects that led to higher taxes and reductions in labor income, chiefly for high-income households. The interaction between food assistance and the general economy depends on the economic interaction among households, industry, the government, and the rest of the world. This interaction involves a complex sys-

tem of relationships and economic transactions. A CGE model describes this complex system. The Food Assistance CGE model developed at USDA's Economic Research Service (ERS) describes the U.S. economy, focusing on the relationships between food assistance programs, households, the farm economy, and general economic activity. It provides a mechanism for examining the impact of food assistance programs on economic activity, and vice versa. The Food Assistance CGE model includes a number of innovations that make it particularly useful for analysts investigating the potential economic impact of changes in food assistance policy:

- Households are categorized by demographic variables and income to better capture the impact of changes in food assistance programs and taxes.
- Consumption patterns vary according to household income to better capture the impact of redistribution on economic activity.

- Industry categories highlight key agricultural and food processing sectors.
- Labor occupations are categorized by skill level to highlight differences in labor supply and demand by skill level across households and industries.
- Labor supply elasticities are detailed by household type to better capture the impact of the redistribution of economic activity.
- Government transfers to individuals are specified by program in order to focus on the role each transfer plays in assisting low-income households.

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# Effects of Food Assistance and Nutrition Programs on Nutrition and Health: Volume 1, Research Design *(FANRR-19-1)*

[www.ers.usda.gov/publications/fanrr19-1/](http://www.ers.usda.gov/publications/fanrr19-1/)

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This is the first of four reports in the “Nutrition and Health Outcome Study,” which assesses the effect of U.S. Department of Agriculture’s food assistance and nutrition programs on nutrition and health outcomes. This report reviews the research designs available to evaluators for assessing the effect of USDA’s food assistance and nutrition programs.

Since the mid-1940s, the U.S.

Government has committed to ensuring that its citizens neither go hungry nor suffer the consequences of inadequate dietary intake. Today, USDA implements 15 programs as a “food safety net,” to provide low-income citizens with food or the means to purchase food. These food assistance and nutrition programs (FANPs) were funded at a level of \$33.5 billion in fiscal year 1998. Under contract with the Economic Research Service of USDA, Abt Associates Inc. has completed a review of knowledge about FANP effects on nutrition- and health-related outcomes. A thorough literature review was conducted to evaluate the strengths and weaknesses of the research designs, analytical methods, and data sources employed to analyze FANP outcomes. A series of four reports has been produced to document what we know and do not know about these outcomes and to identify future research needs.

The random assignment experiment is the “gold standard” design for such an evaluation. Where random assignment is impossible, quasi-experimental designs are used to infer what would have happened to program participants if the program had not existed. Eight types of quasi-experimental design are identified as having been used in evaluations of food assistance and nutrition programs, although none can guarantee unbiased estimates of program impacts.

This report reviews the research designs and analytic approaches that have been used to assess FANP outcomes. The dis-

ussion focuses on the five main food assistance and nutrition programs: the Food Stamp Program (FSP); the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC); the National School Lunch Program (NSLP); the School Breakfast Program (SBP); and the Child and Adult Care Food Program (CACFP). The research designs found in this evaluation literature are applicable not only to other Federal food assistance programs but to practically all social programs that directly serve individuals and families.

In the same vein, although the discussion refers most often to nutrition- and health-related outcomes for participants, the research designs are generally applicable to any outcomes measured for individuals. However, the data available (or not available) on nutrition and health outcomes in existing data sets, along with the procedures required to collect these data, sometimes constrain design choices for evaluating food assistance and nutrition programs.

Numerous quasi-experimental designs have been applied in evaluating food and nutrition assistance programs. The eight quasi-experimental designs discussed here offer varying ways to estimate program impact, where impact is defined as the difference between outcomes for program participants (or for a target population that includes participants) and the outcomes that would have been expected in the absence of the program. Quasi-experimental designs represent the outcomes expected in the absence of the program, called the “Counterfactual,” by outcomes in non-program time periods (pre-post and time-series designs) and/or by contemporaneous outcomes for nonprogram populations (comparison group designs). All quasi-experimental designs are potentially vulnerable to selection bias, a situation in which an observed difference between participant and Counterfactual outcomes is caused by some force other than the intervention being evaluated.

Researchers have used various statistical approaches that attempt to correct for selection bias, but none of these techniques provides certainty that selection bias has been eliminated. Because the properly implemented random assignment experiment is not vulnerable to selection bias, it is the best available approach to estimating program impacts.

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# Effects of CACFP Reimbursement Tiering: Major Findings of the Family Child Care Homes Legislative Changes Study *(FANRR-24)*

[www.ers.usda.gov/publications/fanrr24/](http://www.ers.usda.gov/publications/fanrr24/)

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During the spring and summer of 1999, family child care providers who take part in the U.S. Department of Agriculture's Child and Adult Care Food Program (CACFP), parents of children cared for by the providers, and sponsoring groups took part in a USDA survey.

The survey was conducted within the family child care homes part of CACFP. It answered questions raised by Congress about the effects of the new meal reimbursement tiering system that was applied to family child care homes in July 1997. This report is mostly for the people who answered survey questions and who said they were interested in seeing study results; others interested in the study's findings may also find it useful.

USDA's Economic Research Service and Food and Nutrition Service funded the study, and Abt Associates Inc. conducted it.

## The CACFP and Tiering

The Child and Adult Care Food Program is run by USDA at the Federal level and by State agencies, mostly departments of health or education, at the local level. CACFP helps pay for meals and snacks served in child and adult daycare facilities that sign up to be part of the program. The program pays care providers a fixed amount for each meal they serve that meets CACFP standards. Seeking to focus CACFP benefits more tightly on feeding low-income children, Congress passed a 1996 law that set up a two-tier system of CACFP meal repayment rates for family child care homes. That law, the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA), is best known for the major changes it made in the U.S. welfare system.

Under the new law, "tiering" of CACFP meal payments went into effect in July 1997. Homes in low-income areas or homes in which the care providers are low-income are in the Tier 1 group. Meal reimbursement rates for Tier 1 homes are almost the same as the rates that existed for all CACFP homes before PRWORA.

Family child care homes that do not qualify as low income are in the Tier 2 group. Reimbursement rates are lower for Tier 2 homes, but they can be reimbursed at Tier 1 rates for meals served to low-income children.

Tiering cut meal reimbursements almost in half for Tier 2 providers. In fiscal 1999, Tier 2 homes received meal repayments averaging \$177 per month (including some meals reimbursed at the Tier 1 rate). Had they been repaid at the Tier 1 rates for all meals, their monthly reimbursements would have averaged \$326.

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# Effects of EBT Customer Service Waivers on Food Stamp Recipients: Executive Summary *(FANRR-23)*

[www.ers.usda.gov/publications/fanrr23/](http://www.ers.usda.gov/publications/fanrr23/)

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Most State agencies are now using electronic benefits transfer (EBT) systems to issue food stamp benefits. To promote operational efficiency, some States have received waivers of certain rules governing EBT use. An exploratory study was conducted to ascertain the effects of these waivers on food stamp recipients. The results show that two of the waivers—those allowing recipients to select their own personal identification numbers and to receive EBT training by mail rather than in person—cause new food stamp recipients in waiver States to have more difficulties in using the electronic system than new recipients in non-waiver States. Further, the difficulties are more apparent among the elderly or disabled. However, the problems tend to disappear as new users gain EBT experience.

A third waiver, extending time for card replacement via mail, showed mixed benefits for recipients, most of whom prefer to pick up the card at a food stamp office. Perhaps the most important conclusion is that the customer service waivers do not affect recipient satisfaction with the EBT system; the high level of satisfaction expressed by recipients suggests that most problems with the waivers are either transitory or minor.

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## Also Off Press

Find the latest ERS outlook reports on the web at: [www.ers.usda.gov/publications/outlookreports.htm](http://www.ers.usda.gov/publications/outlookreports.htm)

In addition to the reports fully summarized in this issue of ERS Information, the following reports were recently released.

### **Sugar and Sweeteners Outlook (5/31)**

Beet sugar production for FY 2003 is projected at 4.5 million short tons, raw value (STRV), and aggregate cane sugar production in Florida, Louisiana, Texas, Hawaii, and Puerto Rico for FY 2003 is projected at 4.25 million STRV. Total U.S. sugar production projections for FY 2003 are 746,000 STRV more than production estimates for FY 2002.

### **Outlook for U.S. Agricultural Trade (5/31)**

Since February, weaker prospects for U.S. agricultural exports and unchanged imports lead to a \$1-billion decline in the prospective fiscal 2002 export surplus. Forecast at \$13.5 billion, this surplus also falls below that of fiscal 2001.

### **Floriculture and Environmental Horticulture Yearbook (5/24)**

Grower cash receipts from sales of floriculture and nursery crops continued to rise, but at a much slower pace, reaching \$13.3 billion in 2001. Of this amount, close to two-thirds is from sales of nursery crops. The other 36 percent is from floriculture crops. ERS is reintroducing the Floriculture and Environmental Horticulture program and this is the first publication since 1999.

### **Fruit and Tree Nuts Outlook (5/22)**

The index of prices received by growers during the first 4 months of 2002 averaged lower than the past 2 years, reflecting lower prices for pears, strawberries, and grapefruit. Weaker prices for fresh-market oranges and lemons this past April compared with April 2001 also drove down the index from the previous year.

### **U.S. Agricultural Trade Update (5/20)**

In October-March 2002, U.S. agricultural exports equaled \$29 billion, 3.5 percent more than in the first 6 months of fiscal 2001. U.S. agricultural imports reached \$20.1 billion, a \$530-million or 2.6-percent gain. The U.S. agricultural export surplus rose nearly \$500 million or 5.6 percent.

### **Livestock, Dairy, and Poultry Outlook (5/15)**

Red meat and poultry production in 2003 is forecast at about 84.5 billion pounds, about the same as this year and up 2 percent from 2001. Continuing moderate increases in broiler and pork production, helped by expectations of continuing low feed costs, will offset the expected decline in beef production as heifers are retained from this year's calf crop and 7 continuous years of herd reduction.

### **Wheat Outlook (5/14)**

The 2002/03 outlook for U.S. wheat is dominated by prospects for the smallest U.S. wheat exports in more than 30 years. Total production is projected down 4 percent from 2001/02 to 1,886 million bushels. The survey-based forecast of winter wheat production is 4 percent below a year earlier due to lower area and yields.

### **Feed Outlook (5/14)**

This report summarizes initial U.S. Department of Agriculture (USDA) supply and demand projections and U.S. price prospects for the 2002/03 marketing year. Planting is still underway in the Northern Hemisphere and remains several months away in the Southern Hemisphere, therefore, these projections are highly tentative.

### **Cotton and Wool Outlook (5/13)**

The first USDA cotton forecast for 2002/03 indicates that record global cotton usage is expected for the fourth consecutive season. World cotton consumption is projected at 95.5 million bales, 2 percent above the current season.

### **Rice Outlook (5/13)**

The first projection for the U.S. 2002/03 rice crop is 208 million hundredweight (cwt) (rough basis), down 2 percent from a year earlier but second only to last year's record crop. The decline is the result of lower field yields; plantings are virtually the same as last year.

### **Oil Crops Outlook (5/13)**

The USDA forecasts the 2002 national average soybean yield will edge up to 39.7 bushels per acre from 39.6 bushels in 2001. Combining the yield with a harvested area forecast of 71.7 million acres, U.S. soybean production would total 2,850 million bushels. The 2002/03 export forecast for the U.S. soybeans is 975 million bushels, down from the current season estimate of 1,020 million.

## ERSnippets

The newly released **Food Assistance Landscape** report looks at recent food assistance trends, and ongoing ERS food assistance research related to the determinants and prevention of childhood obesity. View Volume 1, Number 1, March 2002 on the ERS website at:

[www.ers.usda.gov/publications/landscape/vol1nu1.pdf](http://www.ers.usda.gov/publications/landscape/vol1nu1.pdf)

**World Food Summit.** At the 1996 World Food Summit, the United States and 185 other countries committed to halving the number of undernourished people in the world by 2015. Each country agreed to develop a national plan of action and to report periodically on progress made toward this goal. On June 10-13, 2002, countries assembled again in Rome for the "World Food Summit Five Years After" conference. They looked at the reality of chronic food insecurity and the continuing challenges to meeting the original World Food Summit goal.

Two new ERS publications provide current assessments of U.S. and global food security. These publications are part of an active research program on food security, which can be accessed through the ERS Food Security in the United States and the Global Food Security briefing rooms. Access these publications on the ERS website at:

[www.ers.usda.gov/Features/WorldFoodSummit/](http://www.ers.usda.gov/Features/WorldFoodSummit/)

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