

The Effect on Dietary Quality of Participation in the Food Stamp and WIC Programs. By Parke E. Wilde, Paul E. McNamara, and Christine K. Ranney. Food and Rural Economics Division, Economic Research Service, U.S. Department of Agriculture. Food Assistance and Nutrition Research Report Number 9.

Abstract

Participants in the Food Stamp Program consume more meats, added sugars, and total fats than they would in the absence of the program, while their consumption of fruits, vegetables, grains, and dairy products stays about the same. Participants in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) consume significantly less added sugars, which may reflect the substitution of WIC-supplied juices and cereals in place of higher sugar soft drinks and cereals. These findings come from a study of low-income Americans using the Continuing Survey of Food Intake by Individuals.

Keywords: Nutrition assistance programs, food intake, dietary quality, Continuing Survey of Food Intake by Individuals (CSFII)

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Summary

Participation in the Food Stamp Program (FSP) tends to increase one's intake of meats, added sugars, and total fats. It does not significantly change one's intake of fruits, vegetables, grains, or dairy products. The effects of food stamp use seem to be similar to the effects of having substantially more income. Food stamps appear to help low-income Americans acquire more of the food energy and other nutrients they need, but public policy is concerned with overall dietary quality and not just with increasing the amount of food intake.

Participation in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) tends to reduce one's consumption of food products with added sugars, perhaps reflecting the substitution of WIC-supplied cereals and fruit juices for high-sugar cereals and soft drinks. WIC participants also seem to consume more fruits and dairy products than they might otherwise, but this finding was not statistically significant.

The United States invests about \$17 billion annually in the FSP and about \$4 billion annually in WIC, to improve food security and dietary quality for low-income Americans. This study uses data from the Continuing Survey of Food Intake by Individuals (CSFII) for 1994-96. It measures seven categories of food intake using the serving definitions employed in the Food Guide Pyramid developed by the U.S. Departments of Agriculture and Health and Human Services.

The Effect on Dietary Quality of Participation in the Food Stamp and WIC Programs

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Introduction

How do the U.S. Food Stamp Program (FSP) and the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) affect dietary quality? This report combines the most recent 3 years of national survey data on food intake with a novel statistical approach to provide some answers to this question. The results have implications for nutrition monitoring and nutrition education efforts.

This question is significant in U.S. food and nutrition policy. The United States invested about \$17 billion in the FSP in 1998 and about \$4 billion in WIC to improve food security and dietary quality for low-income Americans. WIC had more than 7 million clients on average each month in 1998. The FSP had over 19 million clients on average each month that year, representing about 7.3 percent of all Americans. The effect of these public investments on dietary quality is a major topic in recent studies of public policy in nutrition (Kennedy, 1999; Rossi, 1998; Levedahl and Oliveira, 1999; Oliveira and Gundersen, 2000).

This issue is complicated by several factors:

- First, like many questions in the social sciences, this one involves trying to understand and interpret the choices made by millions of individuals, each of whom faces a distinct economic situation and each of whom has distinct knowledge and opinions. When it comes to dietary choices, in particular, each of these individuals has quite literally his or her own “tastes and preferences.” Each family differs from the next, and even within the same family, each member may be different.

- Second, dietary quality is not easy to evaluate. In the case of dietary quality for low-income Americans, public policy is concerned both with food insecurity, which may involve episodes of insufficient food intake, and also with the same problems of nutritional excess that are major concerns for the American population at all income levels. Furthermore, dietary quality is difficult to assess by measuring the consumption of particular foods or nutrients on their own. Instead, dietary quality depends on the composition of a bundle of foods.
- Third, the evaluation of food and nutrition programs stands at a junction between research disciplines. The nature of spending choices subject to resource constraints is, by tradition, in the research portfolio of economics. Nutritional effects of food behaviors have most often been the domain of nutrition science. Assessing food and nutrition programs therefore seems to call for an interdisciplinary approach. Such methods for this area of research are still rapidly developing.

This study investigates the dietary impact of the FSP and WIC while addressing precisely these complications. These issues do not exhaust the list of important factors that could have been considered in this analysis. In particular, this study does not simultaneously address other important nutrition assistance programs, such as school meals programs. This report explains the main results and the reasoning behind the research design for the study, and it refers the reader to a separate article for the more technical details of the analysis (Wilde, McNamara, and Ranney 1999).

In overview, the research uses data from the 1994-96 Continuing Survey of Food Intake by Individuals

(CSFII) to study intake of the five major “pyramid” food groups (meats, fruits, vegetables, grains, dairy) plus added sugars and total fats (fig. 1). The study considers how intake of each major food category is correlated with intake of the other categories. The report offers some background on the FSP and WIC; reviews recent research on nutrition programs and dietary quality; describes the data and methods used in this investigation; summarizes the main results; and suggests some implications both for food and nutrition policy and for future research.

Background on the FSP and WIC

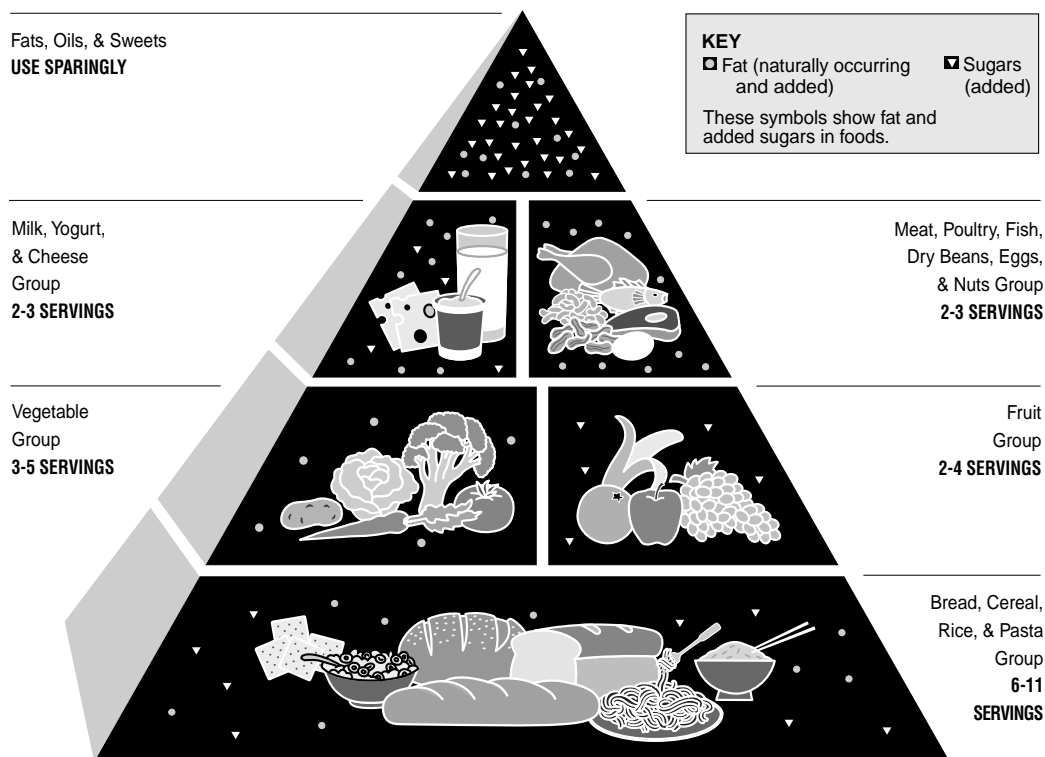
The FSP is the largest Federal nutrition assistance program and one of the largest components of the Federal social safety net. An early Food Stamp Program operated during the 1930’s, but it was discontinued during the Second World War. In its current incarnation, the program began in 1962. Initially, not all localities participated in the FSP, but it was extended nationwide during the early 1970’s. To qualify for the program, a household must have gross income less than or equal to 130 percent of the official poverty threshold. The

household must also have “net” income less than the poverty line, where net income equals gross income minus certain deductions. Finally, the household must meet restrictions on its ownership of certain assets (USDA Food and Nutrition Service, 1999).

The amount of benefits a family receives depends on its net income. If it has no net income, after deductions, the family receives the maximum food stamp benefit. This maximum benefit level equals the value of the Federal Government’s “Thrifty Food Plan,” which varies according to household size. If the family has some net income, its benefit level is reduced at a rate of 30 cents for every dollar of net income. The average monthly benefit in 1998 was about \$71 per person.

Food stamp benefits may legally be used to purchase only food and nonalcoholic beverages. The benefits were traditionally distributed as coupons that could be used at authorized retail stores to purchase food. Currently, the FSP is switching to Electronic Benefit Transfer (EBT) systems, which dispense benefits using plastic cards similar to automatic teller machine cards.

Figure 1
The Food Guide Pyramid



Source: U.S. Department of Agriculture/U.S. Department of Health and Human Services