

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
http://ageconsearch.umn.edu
aesearch@umn.edu

Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.

No endorsement of AgEcon Search or its fundraising activities by the author(s) of the following work or their employer(s) is intended or implied.

EXISTING FOOD POLICIES AND THEIR RELATIONSHIP TO HUNGER AND NUTRITION

Joyce E. Allen
Doris Epson Newton

Invited Paper for Presentation at the

American Agricultural Economics Association Annual Meeting

July 27-30, 1986

Reno, Nevada

The auth Research this pap

Food alshibation programs

The authors are economists with the National Economics Division, Economic Research Service, U.S. Department of Agriculture. The views expressed in this paper do not necessarily reflect those of the Economic Research Service or the U.S. Department of Agriculture.

EXISTING FOOD POLICIES AND THEIR RELATIONSHIP TO HUNGER AND NUTRITION

Joyce E. Allen and Doris Epson Newton

The federal government subsidizes, either partially or fully, 95 million meals each day. Approximately two-thirds of these meals were purchased with food stamps while school lunches accounted for one-fourth of the meals (USDA, FNS, 1984). The food assistance programs are designed primarily to provide persons, particularly those with low-income, with access to more food and a more nutritious diet. In fiscal 1985, the U.S. Department of Agriculture spent approximately \$18.6 billion on in-kind and cash food assistance (table 1).

Despite the scope and cost of the food assistance programs, recent studies have concluded that the incidence of hunger in the United States is increasing (Porter and Washington, Chou).¹ Although there is general agreement that hunger re-emerged in the United States during the 1980's, there is much controversy regarding the extent of hunger. The Physician Task Force estimated that 20 million Americans suffer from hunger at least some time each month but the President's Task Force indicated that it is currently impossible to estimate the extent of hunger because of the absence of reliable data.

The objectives of this paper are threefold—-(1) to review current food policies and their objectives relative to existing nutritional and hunger problems, (2) to appraise the existing food assistance programs based on their stated objectives and (3) to assess the limitations of existing food assistance programs and policies. The paper focuses primarily on the Food Stamp Program

According to the President's Task Force on Food Assistance, hunger is commonly defined as "a situation where some people--even occasionally--cannot obtain an adequate amount of food, even if the shortage is not prolonged enough to cause health problems".

Table 1. Food Assistance Programs, FY 1985

| Program | Date Established | Participation ¹ | Federal Expenditures ² |
|-----------------------|---------------------|----------------------------|--------------------------------------|
| | | | |
| | Year | (Thousands) | (Thousands) |
| Family Food | | | |
| Food Stamp | 1964 | 19,902 | 10,743,556 |
| Nutrition Assistance | 1982 | 1,600 | 825,000 ³ |
| Child Nutrition | | | |
| National School | | | |
| Lunch | 1946 | 23,5734 | 3,390,248 |
| Special Milk | 1954 | NA | 15,911 |
| School Breakfast | 1966 | 3,4374 | 385,313 |
| Child Care Food | 1968 | 1,047 ⁵ | 453,485 |
| Summer Food Service | 1968 | 1,4616 | 102,732 |
| Supplemental Food | | | |
| Commodity Supplements | al | | |
| Food | 1969 | 139 | 37,728 |
| WIC | 1972 | 3,138 | 1,489,055 ⁷ |
| Elderly Pilot Project | 1981 | 19 | 2,219 |

--continued

Table 1. Food Assistance Programs, FY 1985 (cont.)

| | Date | | Federal | |
|---------------------------|-------------|----------------------------|---------------------------|--|
| Program | Established | Participation ¹ | Expenditures ² | |
| | | Persons | Dollars | |
| | Year | (Thousands) | (Thousands) | |
| Food Distribution | | | | |
| Food Distribution | | | | |
| Program on India | in | | | |
| Reservations ⁸ | 1935 | 139 | 48,531 | |
| Nutrition Program | for | | | |
| the Elderly | 1965 | 866 ⁵ | 126,651 | |
| Temporary Emergence | -y | | | |
| Food Assistance | 1981 | 23,0009 | 1,025,303 | |

Average participation per month. ²Administrative costs are excluded, unless indicated. ³Total expenditures appropriated for the program. ⁴Excludes June, July, and August. ⁵Average daily attendance at centers offering the program. ⁶Average daily attendance in July. ⁷Includes administrative costs and expenditures for nutrition education. ⁸Includes needy families in Trust Territories. This program was available nationwide and subsequently phased out except on the reservations and in the Trust Territories. ⁹Food and Nutrition Service estimate for September 1984. NA = Not available.

Source: U.S. Department of Agriculture, Food and Nutrition Service, 1986.

and the National School Lunch Program because these two programs provide about 92 percent of the meals subsidized by the federal government and account for approximately 76 percent of USDA expenditures for food assistance (table 1).

AN OVERVIEW OF FOOD POLICY

Domestic food policy has evolved so that now it encompasses nutritional needs, domestic production and food prices, food safety and quality, and food assistance programs (Foreman). This discussion is not intended to be a thorough discourse on key elements of food policy but is designed to highlight developments in food policy relating to the food assistance programs, nutrition, and hunger.

The Evolution of Food Programs

The depression of the 1930's provided the economic and political setting for the federal government to provide food assistance to the needy. Reports of hunger among the poor and unemployed were increasing while the government accumulated huge quantities of surplus agricultural commodities. During this period, the Food Stamp Plan was established to raise farm income and improve the dietary standards of low-income consumers (Gold, Hoffman, and Waugh). Other depression era food programs administered by the federal government included the needy families, school lunch, and low-cost milk programs.

At its peak, the Food Stamp Plan served more than 3 million persons per month (USDA, FNS, 1977). However, reduced food surpluses and lower unemployment during World War II resulted in its demise in 1943. Consequently, food assistance to poor families was limited to commodity distribution programs which were designed primarily to assist producers through surplus removal rather than to improve the nutritional status of needy families. Despite the emphasis on commodity support for family food assistance programs, Congress declared nutritional objectives for the school lunch program when it was permanently

authorized in 1946. Schools operating a federal lunch program were required to serve lunches meeting minimum nutritional requirements set by the Secretary of Agriculture.

In response to public awareness of hunger and the plight of the poor, additional food programs were permanently authorized and greatly expanded in the 1960's and 1970's. The Food Stamp Act of 1964 (P.L. 88-525) set goals of safeguarding the health and well-being of the Nation's population and raising levels of nutrition among low-income households. The states could offer either the Food Stamp Program or the Commodity Distribution Program.

In the late 1960's and early 1970's, national uniform eligibility standards based on income and household size were set for the Food Stamp Program, the value of food stamp allotments were increased, free stamps were available to the neediest households, and limits were set on the maximum purchase price of stamps (Allen, 1980; Longen). National expansion of the program was mandated in 1973 and cost-of-food adjustments in coupon allotments were instituted in 1974. The elimination of the purchase requirement for all households became effective in 1979 and this removed a major barrier to participation in the Food Stamp Program. However, it weakened the program's ties to its objectives of food supplementation and improved nutritional levels.

Studies by Boehm, Nelson, and Longen and Kotz indicated that progress was achieved in reducing hunger in the 1970s. The food programs, particularly the Food Stamp Program, were largely responsible for the disappearance of widespread hunger. However, political support for the food programs eroded in the 1980's as the federal budget deficit increased rapidly.

Current Programs and Policies

The Omnibus Budget Reconciliation Acts of 1981 and 1982 instituted major changes in the Food Stamp Program (Allen, 1984; Senauer; Hiemstra, 1983). The

1981 Budget Act (P.L. 98-35) established gross income eligibility standards at 130 percent of the federal poverty level for all households, except those with elderly or disabled persons. It delayed cost-of-food adjustments for food stamp benefits, temporarily reduced the frequency of adjustments in the amount of the standard and dependent care/excess shelter deductions and repealed scheduled liberalization in the dependent care deduction for working adults and the medical deductions for the elderly and disabled. Further, the earned income deduction for working households was lowered from 20 percent to 18 percent of earnings. Other changes included prorating the initial month's benefits based on the application date and tightening the eligibility standards for households with members involved in labor strikes. Moreover, the Act eliminated the requirement that states inform low-income persons about the Food Stamp Program and prohibited them from using federal funds for outreach activities.

The 1982 Act (P.L. 97-253) delayed adjustments in the standard, medical, and dependent care and excess shelter deductions, required rounding down deductions and benefit payments to the nearest whole dollar, and tightened eligibility standards for students. Food stamp benefits were also temporarily reduced so that households with zero net income no longer received benefits equal to the full cost of a nutritionally adequate diet as defined by USDA's Thrifty Food Plan.

The child nutrition programs were also significantly affected by the Omnibus Budget Reconciliation Act of 1981. Income eligibility requirements for free and reduced-price lunches were tightened so that fewer students qualified. Cash subsidies and commodity support for meals served to children who pay either the full price or reduced price for their meals served under the National School Lunch, School Breakfast, and Child Care Food programs were reduced. The effects

of these changes were lower participation and higher prices for school meals (Senauer; Allen, 1984; Hiemstra, 1983).

In addition, the 1981 Budget Act allows USDA to offer the Summer Food Service Program only in areas where 50 percent of the children served meet the income eligibility criterion for free and reduced-price lunches. Under previous legislation, only 1/3 of the children had to meet this criterion. Heimstra (1983) estimated that the eligibility restriction reduced the number of sites operating the program in fiscal 1982 by 32 percent and decreased participation by 23 percent. Furthermore, schools and institutions were prohibited from operating a special milk program if they participated in any of the other child nutrition programs. As a result of program restrictions, the amount of milk served under the program declined dramatically, from 1,796 million half-pints in fiscal 1980 to 202 million half-pints in fiscal 1982 (USDA, FNS, 1985).

In December 1981, President Reagan initiated a special food distribution program (later renamed the Temporary Emergency Food Assistance Program) to reduce mounting government stocks and provide food assistance to the needy. From the initial distribution of processed American cheese, the program expanded to include butter, instant nonfat dry milk, cornmeal, rice, flour, and honey. In contrast to the other food assistance programs, this program has few, if any, ties to adequate nutrition.

The re-emergence of hunger probably influenced reform in the Food Stamp Program. In November 1984, benefits were adjusted to reflect the full value of the Thrifty Food Plan. In addition, the Gramm-Rudman-Hollings deficit reduction law exempts the Food Stamp Program and the other food assistance programs from further budget cutting. The Food Security Act of 1985 (P.L. 99-198) mandated several revisions affecting food stamp eligibility and benefits including

raising the deductions on earned income from 18 to 20 percent, separating the combined deduction for dependent care cost/shelter costs, raising the asset limit for nonelderly households from \$1,500 to \$2,000; implementing procedures for certifying and issuing food stamps to eligible homeless people, and prohibiting states from charging sales tax on food purchased with food stamps. Further, states must encourage food stamp recipients to participate in the Expanded Food and Nutrition Education Program.

EVALUATION OF THE FOOD ASSISTANCE PROGRAMS

We evaluated the major food assistance programs based primarily on legislated objectives and the policy declaration statements in the authorizing law. However, as Hiemstra (1978, p. 110) asserts it is often "necessary to go beyond stated objectives in the legislation, or to interpret broadly stated objectives more precisely, in terms that lend themselves to measurement and formulation of researchable issues."

Data are not currently available on the nutrient intake of a nationally representative sample of the U.S. population, particularly, persons eligible for participation in the existing food assistance programs.² Similarly, national data are not available on the sociodemographic and nutritional status of the hungry. Due to data limitations, we examined existing empirical studies on the impacts of the food assistance programs as the initial step in the appraisal. Only studies which utilized the most recently available nationally representative dataset were included in the literature review. The implications of the major

²Current data from case studies may be available but as Hiemstra (1978, p. 110) points out "evaluation (of the food programs) must go beyond case studies; it must be based upon national probability samples in providing a basis for sound policy decisions."

program and policy changes in the food programs are discussed relative to the impact of the changes on hunger and nutrition. Some limitations of the programs are also addressed.

Food Stamp Program

The declaration of policy in the Food Stamp Act of 1977 clarifies the objectives of the program. It reads as follows:

To alleviate (such) hunger and malnutrition, a food stamp program is herein authorized which will permit low-income households to obtain a more nutritious diet through normal channels of trade by increasing food purchasing power for all eligible households who apply for participation (Title XIII, of Pub. L. 95-113, 91 Stat. 958).

Most empirical studies of the Food Stamp Program utilized data collected prior to 1979 (i.e., pre-elimination of the purchase requirement [EPR]).

These studies (e.g., Johnson, Burt, Morgan; Smallwood and Blaylock) found that "bonus" food stamps exerted a positive and statistically significant influence on food expenditures.³ The literature (e.g., Basiotis, Brown, Johnson, and Morgan; Allen and Gadson; Basiotis) provides evidence that participation in the Food Stamp Program has a positive influence on nutrient availability. Few studies have examined the effects of the post-EPR Food Stamp Program on food expenditures and nutrient intake. In a pioneering study, Chen and Johnson, estimated that food stamp program participation in 1979-80 had a positive and significant impact on food expenditures.

The literature supports the notion that the magnitude of food stamp program impacts varies with the socio-economic characteristics of the recipients.

Smallwood and Blaylock found that the effect of the Food Stamp Program on food expenditures was significantly larger for persons under three years of age and

³ The value of bonus food stamps was equal to the food stamp allotment minus the amount the recipients paid for the stamps.

for those over 64 years. Chavas and Keplinger indicated that bonus food stamps had a significantly positive impact on the intake of niacin, riboflavin, vitamins B_6 and B_{12} . Their results suggested that the Food Stamp Program is nutritionally effective for Blacks and retired persons. They found that bonus food stamps had a negative impact on the consumption of most nutrients by students.

As a result of EPR, the Food Stamp Program is more accessible to low-income households. While EPR permits households to reach a higher indifference curve, thereby, increasing their utility, it also probably results in lower food expenditures (Salathe, Parkay) and nutrient levels by some recipients. These recipients were likely to be in the middle range of the income eligibility spectrum.

There is some evidence (e.g., Morentz) that EPR exacerbated money management problems and that some households did not allocate the money that was formerly spent on the purchase price of the food stamp allotment to buy food. Further, individuals who joined the program after EPR may not realize that an implicit assumption of the program is that, in addition to spending food stamps, households are expected to allocate 30 percent of their net income on food. This misunderstanding may contribute to households being hungry at the end of the month because they have exhausted their food stamps.

A major deterrent to participation in the Food Stamp Program is the form in which benefits are issued. Participants may experience a loss in self-esteem because they can readily be identified in food stores as "welfare recipients" (Coe)⁴. One study (Stuart) reported that 42 percent of food stamp recipients were ashamed to tell others that they received food stamps. From the perspective of the recipient, a cash transfer would be preferrable since it would allow greater freedom of choice in allocating income. However, donors (i.e., taxpayers)

⁴The program is administered at the local level by the social service or welfare department.

could maximize their utility through an in-kind transfer if their utility is directly affected by the food consumption patterns of the recipients (Giertz and Sullivan). Since negative externalities could result if sufficient quantities of nourishing foods are not purchased under a cash transfer system, food stamps are probably more politically feasible than a cash transfer. 6

Lack of knowledge about eligibility requirements is another deterrent to Food Stamp Program participation. Coe analyzed data from the thirteenth wave (1979) of the Panel Study of Income Dynamics and found that 43 percent of eligible nonparticipants thought that they did not qualify for the program. The number of eligible households who do not know how or where to apply for food stamps, or the criteria for eligibility has probably increased since 1981 when federal funds for outreach activities were curtailed. Moreover, the funds were eliminated while the number of persons eligible for the program was increasing due to lower incomes caused by rising unemployment and cuts in public assistance programs. The Advertising Council has recently initiated a two year public service campaign on the Food Stamp Program but a permanent outreach program may be needed to encourage hungry persons to apply for food stamps.

Food stamp benefits are based on the cost of the Thrifty Food Plan, the lowest cost food plan developed by USDA. In developing the food plan, USDA used a quadratic linear programming model to select the appropriate mix of food at a given cost level. For some age-sex categories, primarily children age 1 to 2 years and females age 12 years and older, the Thrifty Food Plan

Several studies (e.g., Salathe, Phillips and Price) suggest that food stamps are more effective in increasing food expenditures than an equivalent amount of cash. Senauer and Young recently showed that food stamps are substantially more effective than cash in raising at-home food expenditures for households whose normal food expenditures were greater than their allotment. Their study was based on data collected prior to and following EPR.

6 While externalities such as hunger, poor health, decreased capacity to learn, and lower productivity could arise from either type of transfer, they are more likely to occur with cash transfers.

does not meet the dietary standard for calcium, zinc, iron, magnesium, and folacin levels. The plan exceeds dietary standards for fat, sweeteners, sodium and cholesterol for most age-sex categories (Peterkin). Although food stamps provide low-income households with the opportunity to obtain a more nutritious diet, the nutritional shortcomings in the Thrifty Food Plan may contribute to malnutrition in some households (i.e., those with women and young children). Supplemental benefits for the most nutritionally vulnerable sector of this population are provided under WIC but because of funding restrictions, the program cannot accommodate all eligible persons who apply for the program.

Some of the assumptions underlying the Thrifty Food Plan may not be valid given the characteristics of the low-income population. These assumptions include (1) basic knowledge about nutrition, (2) foods are purchased in bulk and stored for later use and (3) only 5 percent of the food is wasted because it is inedible (e.g., bones, fat) or has spoiled. Nutrition education is not a panacea for inadequacies in the Thrifty Food Plan but it can provide food stamp participants with the necessary skills to be more efficient in food purchase and preparation. Yet, nutrition education is not an integral part of the Food Stamp Program.

Another concern regarding food stamp benefits is the lack of targeting to meet household needs. Households of equal size and with the same net income receive the same amount of food stamps although their age-sex composition may differ, implying different nutritional needs. Further, benefits are not adjusted to reflect high cost special diets which may be prescribed for medical reasons. Although uniformity in benefit levels may be desirable to simplify program administration, it eliminates the program's ability to raise benefit levels based on nutritional needs.

National School Lunch Program

The National School Lunch Program is designed "to safeguard the health and well-being of the Nation's children, and to encourage the domestic consumption of nutritious agricultural commodities" (Pub. L. 79-396). Research by Akin, Guilkey and Popkin indicates that the school lunch program has a significantly positive impact on nutrient intake for children from low- and high-income families. More importantly, they concluded that the impact was much greater for needy children. Chavas and Keplinger, however, found that the School Lunch Program did not have a significant impact on nutrient intake for any of the twelve nutrients included in their study. 7

In a national evaluation of the School Nutrition Programs conducted during the 1980-81 school year, Wellisch et al. found that school lunch participants consumed lunches containing significantly higher amounts of food energy, vitamins A and B₆, calcium, and magnesium, but significantly less vitamin C, than the lunches consumed by nonparticipants. They concluded that the positive impacts of the lunch program were not due solely to more food being consumed but also to the quality of the food eaten by the participants. Focusing, on income subgroups, Wellisch et al. estimated that the program did not differentially affect students from different income classes.

The Omnibus Budget Reconciliation Acts of 1980 and 1981 mandated some changes which, in effect, probably had an adverse effect on the nutritional status of participants in the National School Lunch Program. The maximum price charged for a reduced-price lunch doubled, rising from 20 to 40 cents while cuts in the reimbursement rates led schools to raise their lunch

Akin, Guilkey and Popkin and Chavas and Keplinger used data from the 1977-78 NFCS. However, Chavas and Keplinger subsetted the data and only used records of individuals who were eligible for the Food Stamp Program. Akin, Guilkey and Popkin analyzed the data using a generalized least squares switching regression method while Chavas and Keplinger used ordinary least squares.

prices by 15 to 25 cents (Allen, 1982). Since the demand for school lunches is highly elastic (Braley and Nelson), these program changes caused some students to drop out of the program. These students are likely to eat nothing for lunch or to consume non-USDA lunches which are generally not as nutritious as lunches served under the National School Lunch Program. Furthermore, there is evidence to suggest that some schools dropped out of the National School Lunch Program because of the lower reimbursement rates (Jones). Thus, those low-income children who received free and reduced-price lunches no longer had access to the program and had fewer alternative sources of obtaining meals.

Multiple Program Participation

Wellisch et al. addressed the issue of multiple program participation by estimating the joint impacts of school lunch and breakfast participation. They considered the total daily intake of participants in both programs compared with those who participated only in the lunch program. Their results indicate that students who eat a USDA school breakfast and lunch consume more calcium and magnesium but less vitamins A and B_6 and iron than do students who consumed a USDA lunch but non-USDA breakfast.

The positive impacts of the school nutrition programs on the consumption of magnesium and calcium are important since many children do not consume sufficient amounts of these nutrients relative to the Recommended Dietary Allowance. However, the negative findings for vitamins A and B_6 and iron suggest that changes are needed in the meal patterns for the School Breakfast Program (Wellisch et al.).

The breakfasts served under the School Breakfast Program are not designed to provide children with one-third of the Recommended Dietary Allowance, on average, albeit the objective of the program is to "provide adequate nutrition for children in attendance" (Pub. L. 94-105). The current meal pattern requires

schools to serve a fruit or vegetable (or fruit or vegetable juice), milk, bread or cereal, and a meat or meat alternate as often as possible. USDA may need to establish meal patterns based on a standard such as the Recommended Dietary Allowance to assure that participants in the School Breakfast Program receive adequate nutrition.

WIC

Empirical studies (e.g., Chavas and Keplinger) of the WIC Program have generally concluded that the program is effective in achieving its objective of "providing supplemental nutritious food as an adjunct to good health care during (such) critical times of growth and development in order to prevent the occurence of health problems" (Pub. L. 94-105). These results are not surprising since (1) the program is targeted toward a specified subgroup -- low-income pregnant, postpartum, or lactating women; infants; and children under age 6 who are at nutritional risk⁸, (2) benefits (either food or vouchers redeemable for specified foods) are provided based on factors such as age and special dietary needs. The foods that are prescribed generally contain the nutrients (protein, iron, calcium, vitamins A and C) that are most likely to be missing from the diets of the target population.

Unlike the other food assistance programs, WIC is not an entitlement program. Local agencies maintain priority levels for eligible persons, based on national guidelines, once their maximum participation level is reached. Although this procedure ensures that individuals with the greatest nutritional risk receive first priority for participation, others who are also at nutritional risk are denied benefits.

Nutritional risk is defined as inadequate nutritional patterns, anemia, high prematurity rates, and inadequate patterns of growth such as underweight, obesity, or stunting.

CONCLUDING REMARKS

The lack of current national data makes it difficult to accurately evaluate the effects of existing food programs. However, the results of available research suggest the following conclusions. Permanent outreach programs for the poor that emphasize nutrition education and eligibility requirements of food programs are vital to the long term health of the hungry and undernourished in America.

The Food Stamp Program is not designed to ensure a nutritionally adequate diet for children ages 1 to 2 and females ages 12 and older. However, it is important that this population subsector be given equitable treatment with respect to nutritional needs. Cost levels of the Thrifty Food Plan model could be modified to ensure that persons in all age/sex categories have an opportunity to purchase a nutritionally adequate diet. Furthermore, the feasibility of adjusting food stamp benefits for persons who are on special high-cost diets for medical reasons should be studied.

Funding for the WIC Program will need to be increased if the program is to provide all categorically eligible persons who are at nutritional risk with an opportunity to consume a nutritionally adequate diet. Long term benefits in terms of improved health, capacity to learn, and productivity could be enhanced by expanding the WIC Program.

Consideration should be given to establishing meal patterns for the School Breakfast Program based on a standard such as the Recommended Dietary Allowance to assure that participants receive adequate nutrition. Moreover, the Temporary Emergency Food Assistance Program is scheduled to expire in September 1987. It is important that this program be continued as long as hunger is a problem in America and the federal government has huge stocks of surplus commodities.

REFERENCES

- Akin, J. S., D. K. Guilkey, and B. M. Popkin. "The School Lunch Program and Nutrient Intake: A Switching Regression Analysis." Amer. J. Agr. Econ., 65(1983):477-485.
- Allen, J. "Domestic Food Programs." Nat. Food Rev. 19(1982):29-31.
- Allen, J. E. "Food Programs Grow Slowly from 1979 to 1983." Nat. Food Rev. 26(1984):21-25.
- Allen, J. E. "An Analysis of the Food Stamp Program: Policy Decisions and Household Food Expenditure Patterns." Ph.D. thesis, University of Illinois, 1980.
- Allen, J. E., and K. E. Gadson. <u>Nutrient Consumption Patterns of Low-Income Households</u>. Washington, D.C.: U.S. Dept. Agr., Tech. Bull. No. 1685, 1983.
- Basiotis, P. P. "Food Costs, Nutrient Availability and Nutrient Intake of Food Stamp Program Eligible Households: Analysis in a Household Production Framework." Ph.D. thesis, University of Missouri, 1983.
- Basiotis, P., M. Brown, S. R. Johnson, and K. J. Morgan. "Nutrient Availability, Food Costs and Food Stamp Program Participation for Low-Income Households."

 Amer. J. Agr. Econ. 65(1983):685-693.
- Boehm, W. T., P. E. Nelson, and K. A. Longen. <u>Progress Toward Eliminating</u>
 <u>Hunger in America.</u> Washington, D.C.: U.S. Dept. Agr., ESCS Agr. Econ.
 Rep. No. 446, 1980.
- Braley, G. A., and P. E. Nelson. "Effect of a Controlled Price Increase on School Lunch Participation: Pittsburgh 1973." Amer. J. Agr. Econ. 57(1975):90-96.
- Coe, R. D. "Nonparticipation in Welfare Programs by Eligible Households: The Case of the Food Stamp Program." J. of Econ. Issues. 17(1983): 1035-1056.
- Chavas, J., and K. O. Keplinger. "Impact of Domestic Food Programs on Nutrient Intake of Low-Income Persons in the United States." S. J. Agr. Econ. 15(1983):155-163.
- Chou, M. "The Politics of Hunger. Part I." Cereal Foods World. 29(1984):206.
- DeVaut, M. L., and J. P. Pitts. "Surplus and Scarcity: Hunger and the Origins of the Food Stamp Program." Social Problems 31(1984):545-557.
- Foreman, C. T. "Human Nutrition and Food Policy." Agricultural-Food Policy Review: Proceedings of Five Food Policy Seminars. Washington, D.C.:

 U.S. Dept. Agr., ESCS Report No. AFPR-2, 1978.

- Giertz, J. F., and D. H. Sullivan. "Donor Optimization and the Food Stamp Program." Public Choice 29(1977):19-35.
- Gold, N. L., A. C. Hoffman, and F. V. Waugh. Economic Analysis of the Food Stamp Plan. Washington, D.C.: U.S. Government Printing Office, 1940.
- Hiemstra, S. J. "Economic Assessment of Recent Developments in the Food Assistance Programs." Paper presented at the annual meetings of the ASSA, San Francisco, CA, Dec. 28, 1983.
- Hiemstra, S. J. "Evaluation of Effectiveness and Efficiency in Food Programs."

 Agricultural-Food Policy Review: Proceedings of Five Food Policy Seminars.

 Washington, D.C.: U.S. Dept. Agr., ESCS Report No. AFPR-2, 1978.
- Johnson, S. R., J. A. Burt, and K. J. Morgan. "The Food Stamp Program: Participation, Food Cost, and Diet Quality for Low-Income Households." Food Technology 35(1981)58-70.
- Jones, J. Y. "Child Nutrition Issues in the 99th Congress." The Library of Congress, Congressional Research Service, Order Code No. IB85055, 1986.
- Kotz, N. <u>Hunger in America: The Federal Response.</u> New York: The Field Foundation, 1979.
- Longen, K. Domestic Food Programs: An Overview. Washington, D.C.: U.S. Dept. Agr., ESCS Rep. No. 81, 1980.
- Morentz, D. Effects of Recent Changes in the Food Stamp Program on Participation and Food Consumption of Participating Households in Tompkins County, New York. Dept. Agr. Econ., A.E. Res. 80-30, Cornell University, 1980.
- Parkay, K.K. "Elimination of the Food Stamp Purchase Requirement: Effect on Food Demand." <u>Proceedings</u> of the Illinois Economics Association, St. Louis (1981)71-80.
- Peterkin, B. B. "USDA Family Food Plans, Revised 1983." Paper presented at the Agricultural Outlook Conference, Washington, D.C., Dec. 1, 1982.
- Phillips, K. S., and D. W. Price. "A Comparative Theoretical Analysis of the Impact of the Food Stamp Program as Opposed to Cash Transfers on the Demand for Food." West. J. Agr. Econ. 7(1982):53-66.
- Porter, D. V., and M. H. Washington. "Summary of Reports Concerning Hunger in America, 1983-1984." The Library of Congress, Congressional Research Service, Rep. No. 84-598 SPR, 1984.
- Physician Task Force on Hunger in America. <u>Hunger in America: The Growing Epidemic.</u>
 Boston, Massachusetts: Harvard School of Public Health, 1985.
- Salathe, L. E. "Impact of Elimination of the Food Stamp Program's Purchase Requirement on Participants' Food Purchases." S. J. Agr. Econ. 12(1980):87-92.
- Senauer, B. "The Current Status of Food and Nutrition Policy and the Food Programs." Amer. J. Agr. Econ. 64(1982):1009-1016.

- Senauer, B. and N. Young. "The Impact of Food Stamps on Food Expenditures: Rejection of the Traditional Model." Amer. J. Agr. Econ. 68(1986):37-43.
- Smallwood, D., and J. R. Blaylock. "Analysis of Food Stamp Program Participation and Food Expenditures." West. J. Agr. Econ. 10(1985):41-54.
- Stuart, A. "Recipient Views of Cash versus In-kind Benefit Programs." <u>Social</u> <u>Science Review</u> 49(1975):79-91.
- Task Force on Food Assistance, J. Clayburn LaForce, Chairman. The President's Task Force on Food Assistance, January, 1984.
- U.S. Department of Agriculture, FNS. "Annual Historical Review of FNS Programs." Washington, D.C., 1984.
- U.S. Department of Agriculture, FNS. "Annual Historical Review of FNS Programs, Fiscal Year 1985 (Revised)." Washington, D.C., 1985.
- U.S. Department of Agriculture, FNS. "The Food Stamp Program: Highlights of History." Reprinted from Food and Nutrition Magazine, Oct. 1977.
- U.S. Department of Agriculture, FNS. "Program Information Data." Mar. 1986.
- Wellisch, J. B., et al. <u>The National Evaluation of School Nutrition Programs:</u>
 <u>Final Report.</u> System Development Corporation, 1983.