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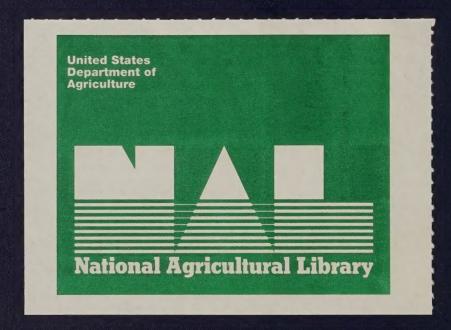
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Economic Research Service

Food and Consumer Economics Division

Number 9507

# The Economics of Food Assistance Programs

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# The Economics of Food Assistance Programs

II. Program Eligibility and Benefits
III. Program Characteristics
IV. Food Stamp Program
V. Targeting Tradeoffs
VI. Low-Income Families' Food Spending
VIII. Some Consequences of Program
Reforms

# USDA Domestic Food Assistance Programs<sup>1</sup>

### Mission

The mission of the nation's food assistance programs is to ensure access to nutritious, healthful diets for all Americans. At the heart of the programs is the basic guiding principle that Americans should not be hungry or malnourished because they cannot afford a nutritious diet. Through food assistance and nutrition education for consumers, USDA encourages consumers to make healthful food choices.

### Goals

The programs' goals are to:

- provide needy persons with access to a more nutritious diet,
- improve the eating habits of the nation's children, and
- help America's farmers by providing an outlet for distributing foods purchased under farmer assistance authorities.

### Background

A primary objective of the nation's original food assistance programs initiated in the early 1930's was to dispose of surplus agricultural commodities purchased by the government to stabilize farm prices and incomes. Now, the most important goal is to alleviate hunger and improve the well-being of poor people. Most recently, the emphasis has been on nutrition and nutrition education. The Food Stamp Program, now the cornerstone of USDA's food assistance, was begun in its modern form in 1961, but it originated as the Food Stamp Plan in the 1930's under the characterization that "there should be no starvation amidst plenty." The National School Lunch Program (NSLP) also has its roots in the Depressionera with the dual goals of helping to feed lowincome children and to distribute surplus farm commodities. NSLP remains the largest domestic food assistance outlet for surplus agricultural commodities. Today, the mission of NSLP has an increased emphasis on nutrition with the recent reauthorization of the Child Nutrition Programs and the Healthy School Meals Initiative for Healthy Children which raises the nutrition standards of school meals to meet the Dietary Guidelines. The Supplemental Food Program for Women, Infants, and Children (WIC) targets low-income pregnant and post-partum women and their children with a tightly prescribed combination of foods, nutrition counseling, and direct links to health care.

### **Program Descriptions**

Food and Consumer Services (FCS), formerly the Food and Nutrition Service, administers the 14 Domestic Food Assistance
Programs. FCS works in partnership with the states in all its programs. States determine most administrative details regarding distribution of food benefits and eligibility of participants, and FCS provides funding to cover most of the states' administrative costs. State and local agencies administer the programs.

FCS administers the following food assistance programs:

- The Food Stamp Program is the cornerstone of the USDA food assistance programs, and served an average of 27 million people each month in 1994. The program issues monthly benefits through coupons or Electronic Benefits Transfer (EBT), using a plastic card much like a credit card. Benefits are redeemable at retail food stores.
- The Food Distribution Program on Indian Reservations and the Trust Territories provides monthly food packages for Native Americans who live on or near Indian reservations and for Pacific Islanders who choose not to participate in the Food Stamp Program. In 1994, about 115,000 people participated in the program each month.
- The Special Supplemental Food Program for Women, Infants, and Children (WIC) improves the health of low-income pregnant, breastfeeding, and

This briefing book provides a graphical supplement to the economics section of the recent USDA Food and Consumer Service and Economic Research Service report entitled "The Nutrition, Health, and Economic Consequences of Block Grants for Federal Food Assistance Programs".

- non-breastfeeding postpartum women, and infants and children up to 5 years old. WIC served a monthly average of 7.2 million women, infants, and children in 1994.
- The WIC Farmers Market Nutrition Program provides WIC participants with increased access to fresh produce. WIC participants are given coupons to purchase fresh fruits and vegetables at authorized local farmers markets. Eleven states and about half a million people participated in this program in 1994.
- The Commodity Supplemental Food Program is a direct food distribution program with a target population similar to WIC, and it also serves the elderly. In 1994, about 400,000 participated.
- The National School Lunch Program serves about 25 million children every school day in 92,000 schools. More than half of these children receive the meal free or at a reduced price. Some 5.4 million children participated in the School Breakfast Program in 1994. Over 60 percent of schools participating in the school lunch program offer a school breakfast. About 83 percent of school breakfasts are served free.
- The Special Milk Program provides milk for children in schools, summer camps, and child care institutions that have no federally supported meal program.
- The Child and Adult Care Food Program provides cash and commodities for

- meals served in child and adult day care centers, and family and group day care homes for children. In 1994, over 2 million children and adults participated in this program. In 1994, about 2.3 million low-income children received free meals during school vacation periods through the Summer Food Service Program.
- The Nutrition Program for the Elderly provides cash and commodities for meals served to senior citizens. In 1994, some 924,000 meals were served each day under this program. Another FCS program provides Food Distribution to Charitable Institutions, Soup Kitchens, and Food Banks. Foods donated to institutions come from agricultural surpluses acquired by USDA as part of its price stabilization and surplus removal activities. The kinds and quantities of foods donated vary, depending on crop and market conditions.
- Alternative Nutrition Assistance Programs for Puerto Rico and the Northern
  Marianas provide benefits through a block
  grant program. These two territories now
  provide cash and coupons to participants
  rather than food stamps or food distribution.
- In 1994, the Emergency Food Assistance Program (TEFAP) provided states with \$40 million in administrative funds to distribute \$80 million worth of USDA commodities--plus commodities donated by the private sector--to the needy.

# Food Program Trends, 1936-94 Food Stamp Program grows substantially \$Billions/year 40 Child Nutrition Food Donations

### **Food Program Trends**

1936 40

Note: 1994 dollars.

Food assistance programs can be broadly categorized into four groups:

45

50

55

60

65

70

75

- Food Stamps: includes Nutrition Assistance for Puerto Rico and the Northern Marianas.
- Child Nutrition: includes the National School Lunch Program, School Breakfast, the Special Milk Program, Child and Adult Care Food Program, and the Summer Food Service Program.
- WIC/CSFP: includes the Special Supplemental Program for Women, Infants, and Children and the Commodity Supplemental Food Program.
- Food Donations: includes the Nutrition Program for the Elderly, Food Distribution to Charitable Institutions, Soup Kitchens, and Food Banks, and the Emergency Food Assistance Program (TEFAP).

Food assistance began in the 1930's as commodity donation and farm support programs.

85

90 94

80

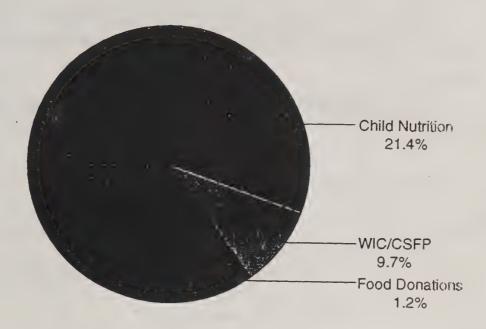
Rapid growth in food assistance outlays began in the late 1960's with the initiation of the Food Stamp Program and an increased focus of food programs on feeding needy people. There was also growth in food assistance targeted for school age children and other groups at nutritional risk such as pregnant women and their young children.

Today, Commodity Donation Programs account for only a small share of budget outlays and are highly dependent on variation in farm programs and conditions.

Food Stamps account for the majority of the growth in food assistance program budgets.

# Allocation of Federal Food Assistance Spending

Food Stamps accounts for two out of every three food assistance dollars



Note: Food Stamps include Nutrition Assistance to Puerto Rico and Northern Marianas.

# The Allocation of Federal Food Assistance Spending

Food Stamps account for two out of every three food assistance dollars. This includes Nutrition Assistance to Puerto Rico and the Northern Marianas.

### **WIC Program Characteristics**

### Eligibility:

Pregnant and postpartum women, infants, and children to age 5 Income must be under 185% of Poverty Guidelines

Must meet nutritional risk criteria: medically or diet based

### Benefits:

Food: iron fortified infant formula, infant cereal, adult cereal, vitamin C-rich fruit or vegetable juice, eggs, milk, cheese, and peanut butter or dried beans or peas.

Nutrition counseling and access to health services.

### Facts:

40% of infants born in US are served by WIC 30-50% of all infant formula is purchased by WIC participants \$3.2 billion budgeted for WIC in FY-94 Reduces Medicaid health care costs

### National School Lunch Program

### Eligibility:

Free meals < 130% poverty guidelines
Reduced price meal 130-185% poverty guideline
Paid meals > 185% poverty guideline

## Cash Subsidy:

Free meal \$1.725 per meal Reduced price meal \$1.325 per meal Paid meals \$0.165 per meal

More than half of all meals are free or reduced

### **Commodity Support:**

14 cents per meal in *entitlement* commodities plus *bonus* commodities from surplus stocks when available

### Facts:

More than 25 million meals served per day, 95% of schools participate Meal patterns must now meet Dietary Guidelines

# Food Stamp Program Eligibility Criteria

### Assets:

Less than \$2,000 in countable assets, \$3,000 if elderly Excludes home, assets used to produce income, and market value of vehicle under \$4,550

Work Requirements: Able bodied adults not in school or caring for a child under 6

### Monthly Income:

Gross income < 130% of Poverty Guidelines

Net Income < 100% of Poverty Guidelines (\$1,234 for 4 persons)

(elderly and disabled exempt from net income criteria)

Allowable deductions include: standard deduction, earned income, dependent care, excess shelter, and excess medical costs for elderly and disabled.

# Food Stamp Program Benefit Criteria

### Benefits Equal:

103% Thrifty Food Plan Cost less 30% Net Household Income

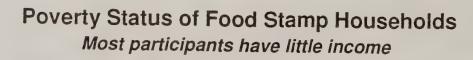
### Thrifty Food Plan:

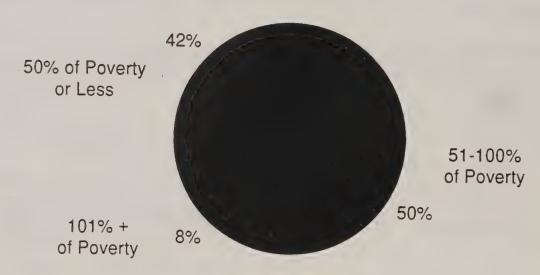
A low cost market basket of foods that meets standards for a nutritious diet. Last updated in 1983 using 1977-78 food consumption data and nutrition standards.

### Fact:

A \$1 increase in the monthly cost of the Thrifty Food Plan for a family of 4 persons raises the cost of the Food Stamp Program by \$82 million per year.

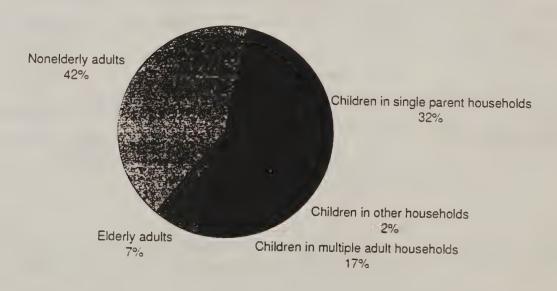
# **Characteristics of Food Stamp Households**



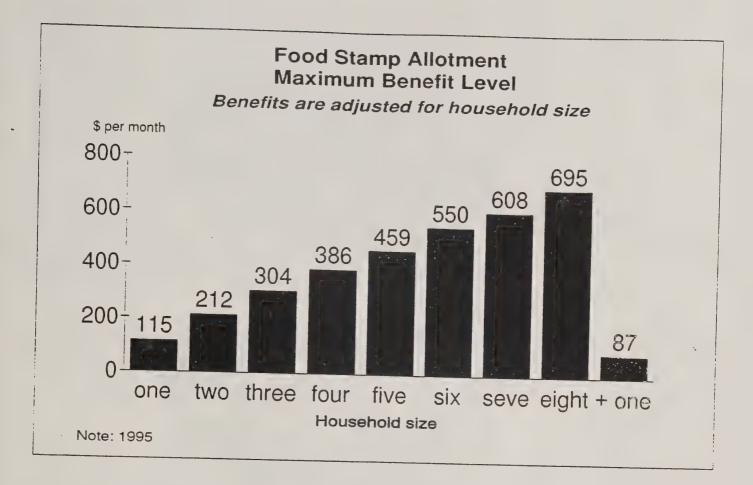


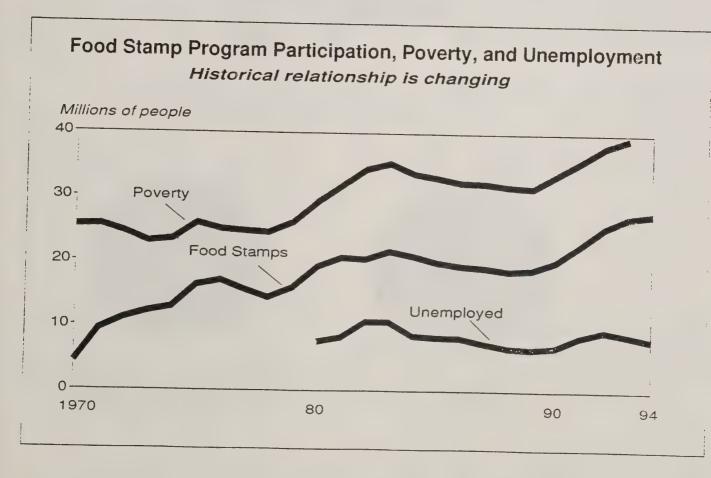
Note: Summer 1993

# Distribution of Food Stamp Program Participants Children account for over one-half of all participants



Note: Summer 1993

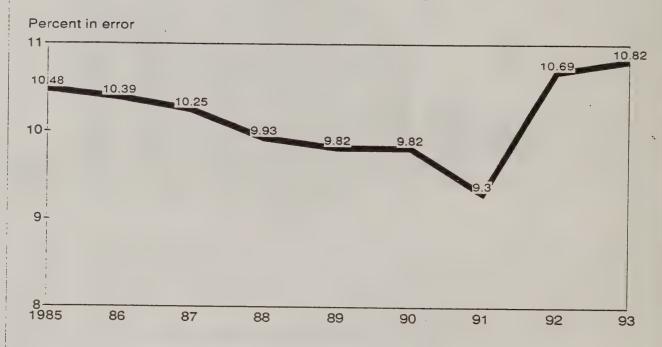




# Food Stamp Program Error Rate Characteristics

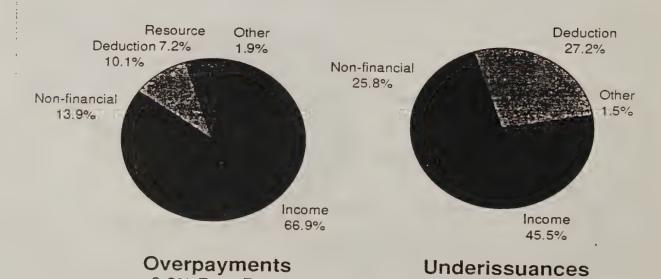
# Food Stamp Program Combined Payment Error Rates

Error rates remain high



# Distribution of Error Dollars By Element

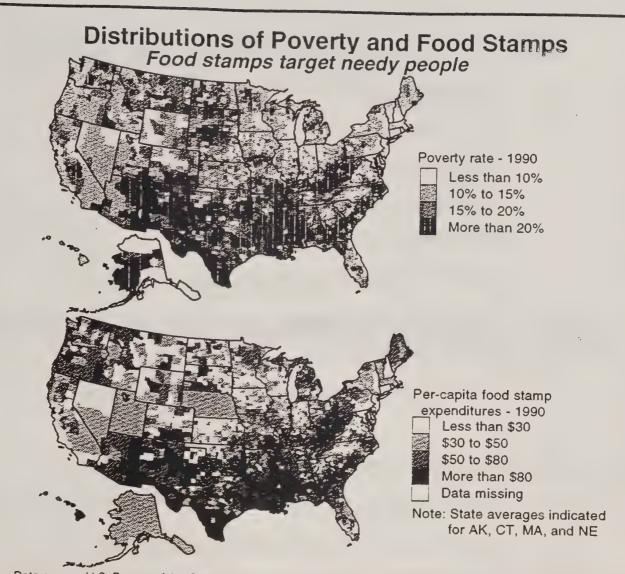
Income reporting is largest source of error



Note: FY 1992

8.2% Error Rate

2.5% Error Rate



Data source: U.S. Bureau of the Census Summary File 3 - 1990 and Consolidated Federal Funds File - 1990

# Distribution of Poverty and Food Stamps

Food stamps are an effective mechanism for delivering benefits to needy persons. The county by county distribution of food stamp benefits to people mirrors almost identically that of the distribution of needy people as measured by the poverty rate. This indicates that food stamps are effective at targeting needy persons.

# Food Assistance Program Issues

- Budget cost
- Targeting
- Benefit adequacy
- Nutrition education
- Administrative efficiency
- · Waste, fraud, and abuse
- Program access
- Work incentives
- · Coordination among other programs

# **Nutrition Education**

- · Child Nutrition Bill
- Leverage Food Benefits with Nutrition Education
- Cross Program Efforts
- Increase Federal Options for Delivery

# Tradeoff Between Delivery Costs and Targeting

Delivery Costs Increase with Targeting

# **Targeting**

Cash Stamps Commodities School Lunch WIC

# **Delivery Cost**

# Tradeoff Between Delivery Costs and Benefit Targeting

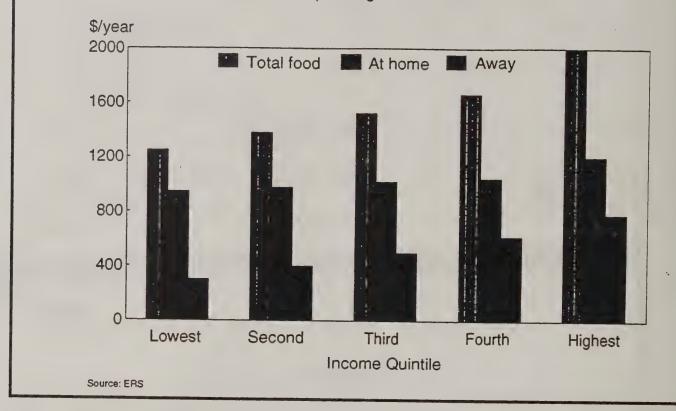
While food consumption and nutrition benefits generally increase with increased targeting of the form of benefits, the cost of delivering these benefits also increases. This leads to a tradeoff where increased benefits must be balanced against increased costs.

Cash benefits are the least costly to deliver to program participants but this form of benefit also has the least impact on increasing food consumption and nutrition.

USDA uses a multi-program approach with varying degrees of targeting and administrative costs to fulfill its mission. Food stamps are more targeted at increasing food spending than cash, commodities are more targeted than food stamps, school lunches are more targeted at nutrition than commodities, and WIC is highly targeted at nutrition and health.

# Per Person Food Spending by Income Quintile

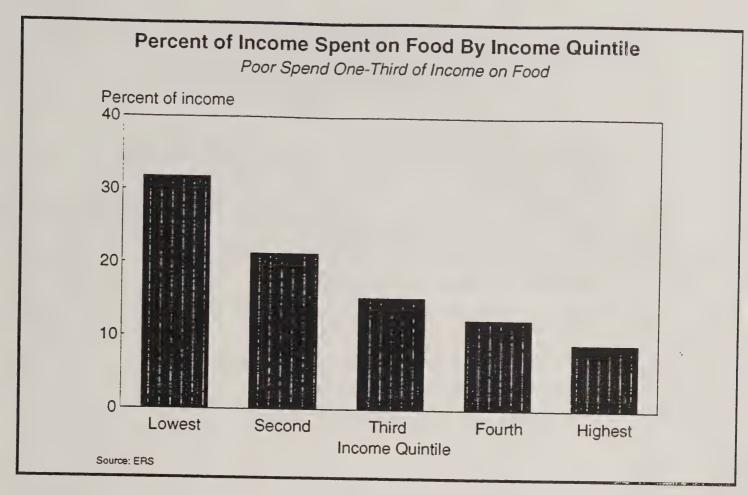
Food spending rises with income



### Per Person Food Spending By Income Quintile

Food spending rises with income. Food away from home accounts for most of the difference.

There is also a change in the mix and quality of food purchased for consumption at home for higher income levels.



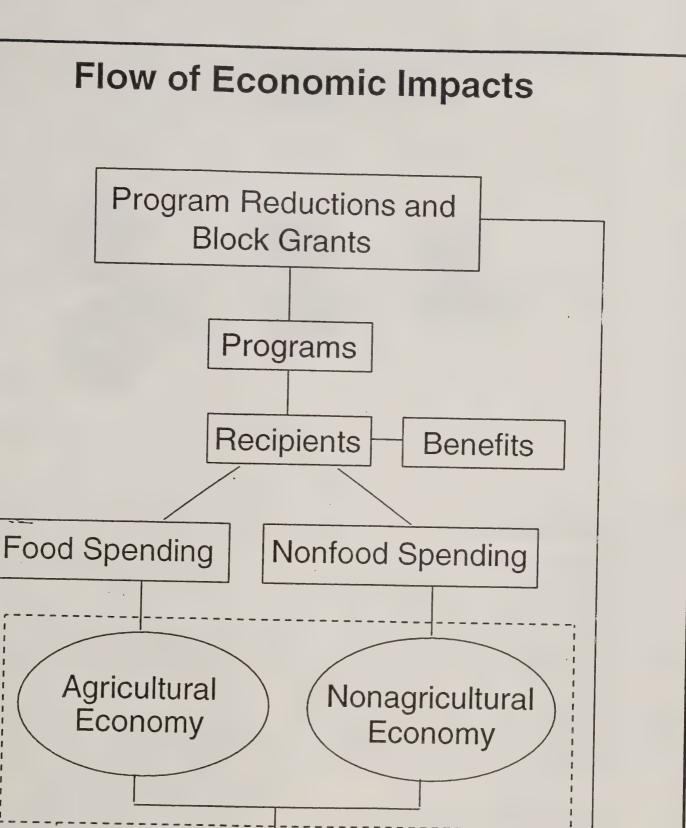
# Percent of Income Spent on Food By Income Quintile

Food spending does not rise as fast as income. Consequently, the percent of income spent on food declines as income rises.

### **PROGRAM REFORMS**

# THE PERSONAL RESPONSIBILITY ACT (Title V)

- Authorizes an appropriation of \$35.6 billion in fiscal year 1996, \$5 billion below projected budget.
- Combines all USDA food and nutrition assistance into a single discretionary block grant.
- Eliminates all uniform national standards.
- Gives States broad discretion, provided:
  - No more than 5 percent for administration
  - At least 12 percent for food assistance and nutrition education for women, infants, and young children
  - At least 20 percent for school-based and child-care meal programs
- Eliminates USDA's authority to donate commodities.



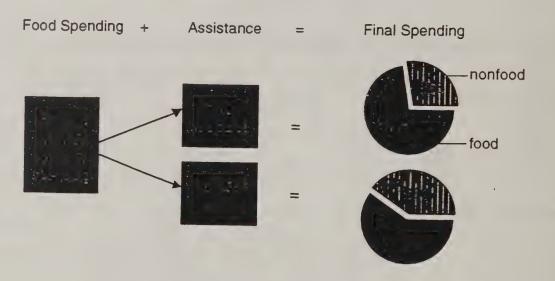
Economy

National/regional

\_abor

# Food Assistance Affects Spending

Coupons increase food spending more than cash (a hypothetical example)



**Supplementation effect:** providing targeted food assistance such as food coupons helps increase food spending but usually less than dollar for dollar (e.g., \$45=145 - 100)

**Slippage effect:** Converting the form of food assistance from coupons to cash results in a reduction in food spending (e.g., \$25 = 145 - 120).

# Food Assistance Affects Food Spending

The economic impact of program reforms on agriculture and the economy depends on the food spending behavior of participants, how it changes, and the interlinkages back through the economy to farms and other sectors.

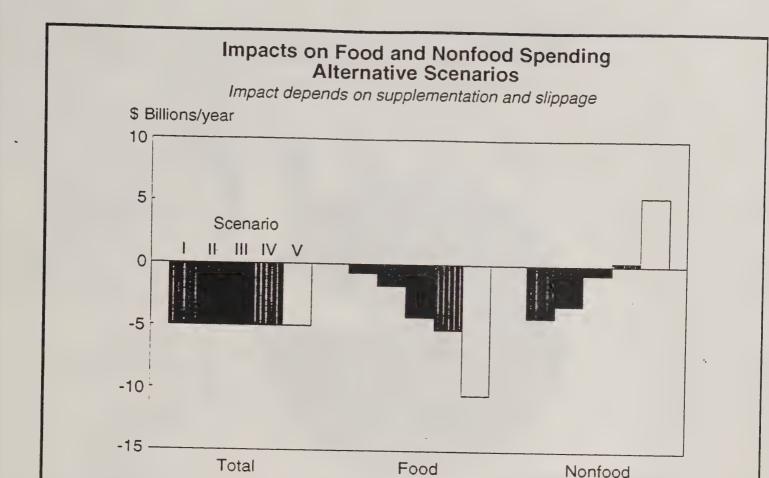
Food assistance increases total spending on food, but the increase is usually less than the amount of the benefit. In addition the form of benefit affects the size of the increase in food spending. Generally, the more targeted the benefit, the greater is the increase in food spending.

In the above hypothetical example, the household has initial food spending of \$100. When it receives \$100 of food assistance in the form of food coupons, total food spending increases \$45. This \$45 increase is referred to as the supplementation effect. Note that while all

of the coupons are devoted to food spending, \$55 in cash previously spent on food is reallocated to other nonfood items such as rent, clothing for children, etc.

Alternatively, when food assistance is provided in a less targeted form such as cash rather than coupons, total spending on food declines. This reduction in spending associated with reduced targeting is referred to as the slippage effect. In the above example, the conversion of coupons to cash results in a \$25 reduction in total food spending from \$145 to \$120, or about 25 cents for each dollar converted.

In the recent food stamp literature, the supplementation effect generally falls in the range of 20 to 45 percent (see tables B-1 and C-1 for details). The slippage effect for converting coupons to cash is generally in the range of 15 to 30 percent.



# Impacts on Food and Nonfood Spending

The impact of program modifications varies with assumption about slippage and supplementation. The economic analysis provides five alternative scenarios that vary with underlying assumptions regarding food assistance supplementation effects associated with program reductions and slippage effects associated with conversion of the form of benefits.

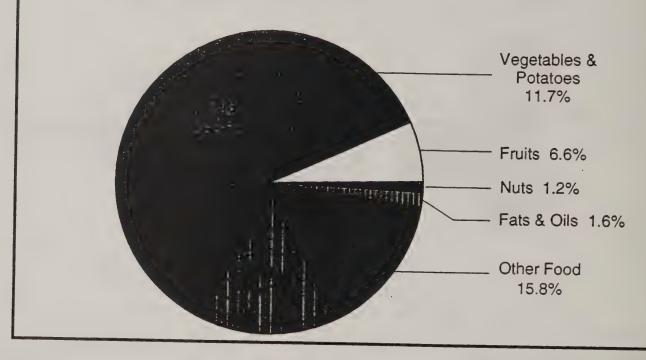
Scenarios I and II assume zero slippage and vary the supplementation effect. Scenario III assumes a supplementation effect of 15 percent and slippage of 10 percent. Scenarios IV and V assume a high rate of supplementation of 35 percent and vary the rate of slippage of between 10 and 25 percent.

These assumptions on supplementation and slippage are based on a weighted average over all programs and explicitly assume that administrative costs of programs have no effect on food spending of participants. Actual slippage and supplementation effects will depend on which programs are affected by budget reductions and how States choose to implement food assistance in their respective states.

All scenarios assume a total program reduction of \$5 billion. This reduction is then converted to impacts on food and nonfood spending. The impacts depend on the underlying assumptions of supplementation and slippage.

# Food Budget Shares, Food Stamp Households

Meats account for largest share of food budget



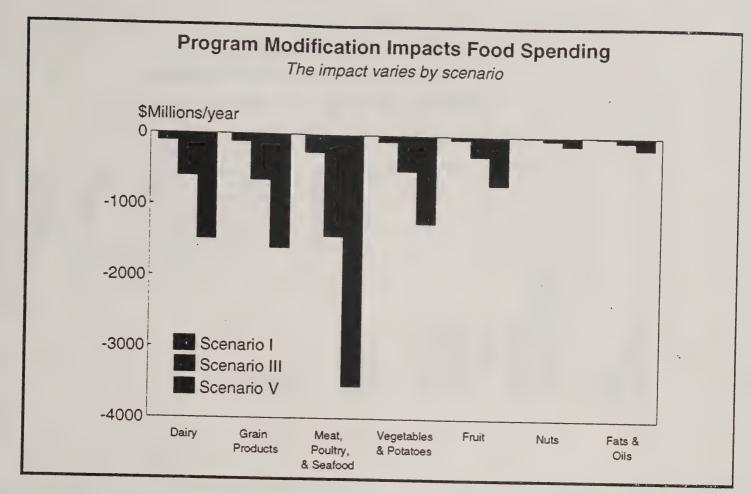
# Food Budget Shares of Food Stamp Households

Meats account for the largest share of the household food budget. One out of every three food dollars spent in low-income households goes toward the purchase of beef, pork, poultry, fish and eggs. In general, meat products at the retail level include less processing than other foods. In other words, they have a high share of farm value per dollar of retail expenditure. For example, the farmers' share of the retail value of a pound of choice beef is 56 percent.

This contrasts with a 34 percent farm value of a pound of cheddar cheese, 18-29 percent for fresh vegetables, and 28 percent for flour, and much less for most prepared foods.

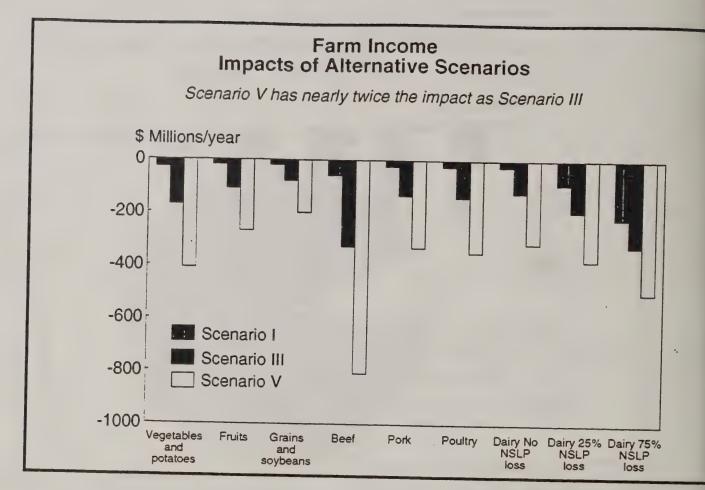
Spending on vegetables and potatoes amounts to about one-third of that for meats.

As consequence of the large budget share and the farm value content for meat products, the impact of a change in retail food spending at the farm level is likely to be greater for meats than for other food groups.



# Program Modifications Impact Food Spending

The impact of program modifications on spending for particular foods depends on the overall impacts on food spending as well as how the food budget is allocated in low income households.



# Farm Income Impacts by Commodity

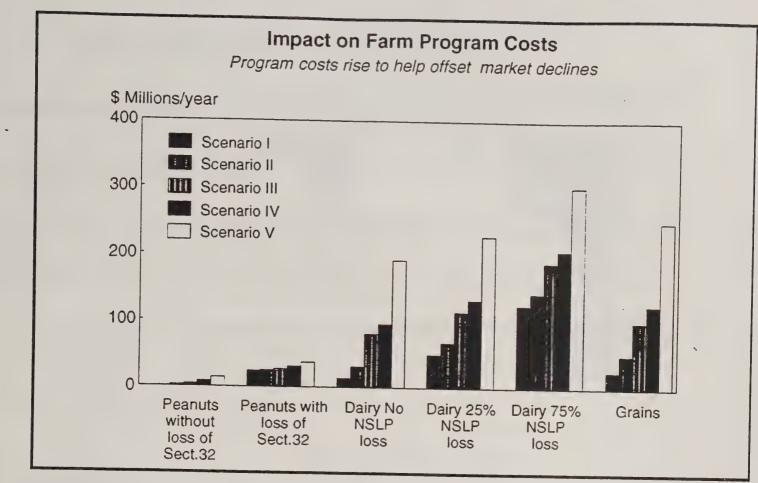
The impact on farm commodities depends on changes in food spending of program participants, the value of the farm component in each food group, supply and demand adjustments that take place at the farm level, and any interactions that might take place with farm programs.

There is relatively little impact under Scenario I (zero slippage). The impacts rise substantially under Scenarios III and V when slippage

occurs. Gross farm income losses range from \$201-416 million under Scenario I to \$2.7-2.9 billion under Scenario V.

Scenario V (high supplementation and slippage case) has nearly twice the impact as Scenario III.

The largest impact is on the beef sector. This is due to the large portion of the household budget spent on beef and the large farm component in the product. The dairy sector is affected by what happens to milk in the school lunch program.



# Impact on Farm Program Costs

Farm program costs rise for peanuts, dairy, and grains to help offset farm income declines that result from reduced food demand. The increase in program costs for Scenario V is almost twice as large as it is for Scenario IV (see table B-3).

Farm program costs range from \$1-14 million for peanuts without loss of Section 32 to \$24-37 million with complete loss of Section 32 purchases for food assistance programs.

Dairy program costs depend heavily on what happens to fluid milk use in school meals. Cur-

rent law requires that one cup of milk be offered with each school lunch. There are about 25 million school lunches served each day and this accounts for about 6-8% of total fluid milk consumption. The proposed program modifications remove this requirement. Dairy program cost increases range from \$13-191 million if there is no loss in consumption in school lunches to \$124-302 million if there is a 75% loss in school lunch usage of milk.

Grain program costs range from \$25-250 million depending upon the scenario.

# **Economywide Impacts of Food Assistance Reform**

Our economywide analysis accounts for the linkages among the producing sectors and household, with households distinguished by income groups.

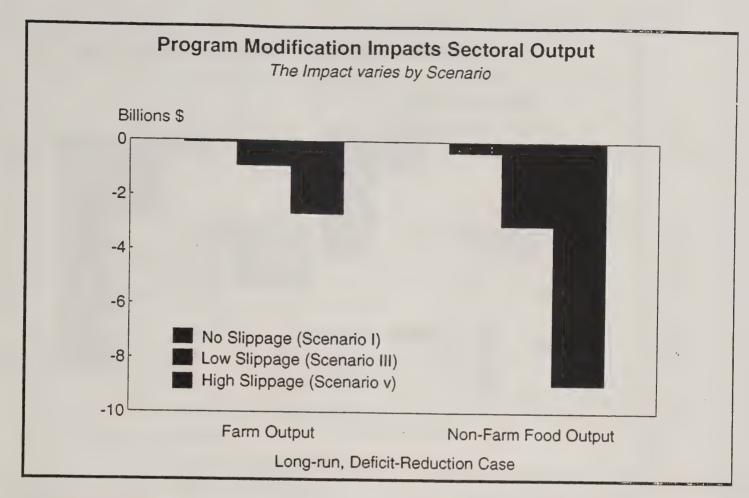
We trace the impact on producers from a \$5 billion reduction in food assistance and a shift in demand from food to nonfood due to recipient response to reform of food assistance programs. This shift in demand is called slippage.

We also account for the impact on demand and production from using the reduced government expenditures on food assistance to help offset a tax reduction or reduce the deficit.

We do not provide welfare analysis nor do we account for potential dynamic growth effects from investment in capital stocks or from a change in incentives to work or save.

Our analysis focuses on the redistribution of production activity and jobs from food to nonfood sectors of the economy.

Foonomic Donnard Carte Hope



### Program Modification Impacts Sectoral Output

The impact on the food sectors increases with slippage, which accounts for recipients response to the form of food assistance programs.

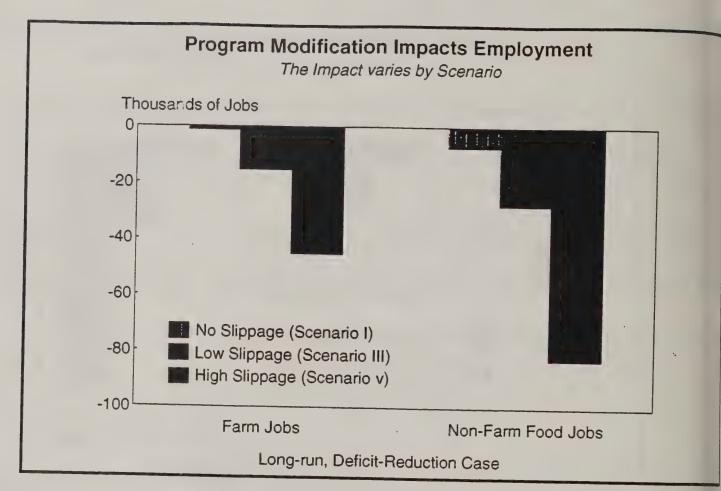
Farm output falls by \$70 million in scenario I with no slippage, \$900 million in scenario III with low slippage, and close to \$3 billion in scenario V with high slippage.

Non-farm food sectors consists of food processing and distribution, where output falls by \$40

million in scenario I, \$3 billion in scenario III, and \$9 billion in scenario V.

As a percentage, food production falls 0.04%, 0.5%, and 1.5% for no, low, and high slippage, respectively.

Note: Output or production is equivalent to gross farm income for the farm sector (Agricultural Statistics), value of shipments for food processing and other manufacturing (Census of Manufactures), sales for trade and services (Bureau of Census).

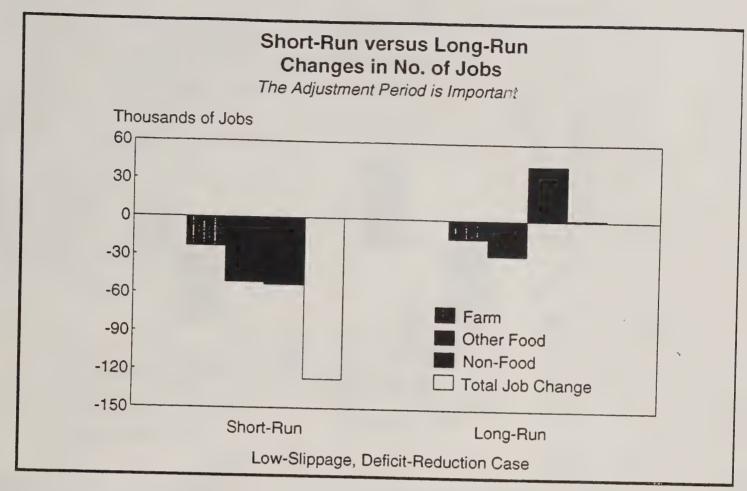


### Program Modification Impacts Employment

Changes in the level of production determine employment.

Farm jobs fall by 1 to 45 thousand for scenarios I to V. Non-farm food jobs fall by 7 to 83 thousand.

Employment changes are presented as changes in full time job equivalents. Farm employment combines farm operators, nonpaid family members, and hired workers into full time job equivalents.



# Short-run Versus Long-run Changes in Number of Jobs

Reform of food assistance programs will trigger an adjustment process in which job losses from a reduction in food assistance (short run) are replaced by jobs created from new demand stimulated by tax or deficit reduction (long run).

The timing of this adjustment process is difficult to analyze. So, we present a short and long run dichotomy, given our methods of analysis.

In the short run (1/2 to 1 year), there is a loss of 120 to 130 thousand jobs (0.1% of total employment), from a \$5 billion reduction in food assistance programs. This amounts to a 0.1% increase in the unemployment rate.

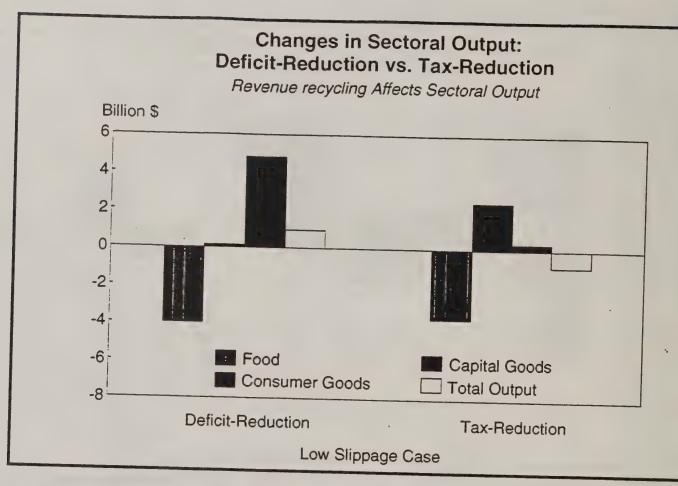
Given some lag, the reduced government expenditures are returned to the economy through a

tax or deficit reduction, resulting in 43 thousand jobs moving out of food and into non-food production.

The invisible hand of the market moves workers from jobs in one industry to another. Are job skills up to the change? Are job training programs available? Our analysis can bring up these issues, but not answer them.

A second point, in context of the short run, is that during periods of increasing unemployment, additional people qualify and receive food assistance under current programs.

The additional demand for food generates about 25,000 jobs per billion dollars of food assistance expenditures (in reverse to the job losses reported here). Currently, food assistance programs serve as what we call an "automatic macro economic stablizer." This may be lost under proposed reform.



# Changes in Sectoral Output: Deficit vs Tax Reduction

Revenue recycling affects sectoral output.

How the reduced government expenditures are used, tax versus deficit reduction, has little impact on food production, but significantly impacts on other sectors.

Deficit reduction increases demand for capital goods and construction, a relatively more productive (output per unit of labor) use of resources that increases national output.

Tax reduction increases demand for consumer goods and services, a relatively less productive use of resources that decreases national output.

Table C-1. Estimated of the Marginal Propensity to Consume Pood at Home out of Various Income Sources from Selected Studies of Low-Income

Study	Data Head		Estimated Marginal Propensities	ropensities
(1)	(2)	Sample Size (3)	Food Stamps Money (4)	Money Income
Chen (1983)				
Senauer and Young (1986)	1979 Michigan PSID Data	FSP participants,	ž	ł
Frake, Long, and Post	1086	n = 574	2	.07
(1990)	Individuals	Households eligible or FSP and WIC	.29	.05
Ranney and Kushman		Program, n = 515	٠.	
(1987)	4-State Survey carried out in 1979-80	FSP Participants	.62	5
Levedahl (1991)		n = 310		<b>5</b>
	1979-1980 Survey of Food Consumption in Low-Income Households	FSP Participants	•69.	<b>.</b> 19
Ohls, Fraker, Martini, and Ponza (1992)	San-Diego Cash-Out	12,17 536 comos and	;	
	Lemonstration	541 cash households	.28	.11b
Fraker, Martini, Ohls,	A labour Branch Co.	randomingly assigned		
Ponza, and Quinn (1992)	Demonstration	1,080 coupon and 1,209 cash bouseholds	.31	.31
Sources: Fraker (1990), Ohls and Be	Sources: Fraker (1990), Ohls and Beethout (1993) and managed and m	randomingly assigned		
a. The average reduction (21:	cour (1773) and recent FNS cashout studies			

a. The average reduction (slippage) in food expenditure per dollar of food stamp benefits converted to cash was 11 cents. In this study, slippage is not equal to the b. Based on model specification, the reduction (slippage) in food expenditure per dollar of food stamp benefits converted to cash equals the difference between the difference between the marginal propensities because the MPC's are non-linear functions of the level of food stamps and income,

marginal propensities. This interpretation required that the marginal propensities be constant at all levels of income and food stamp benefits.

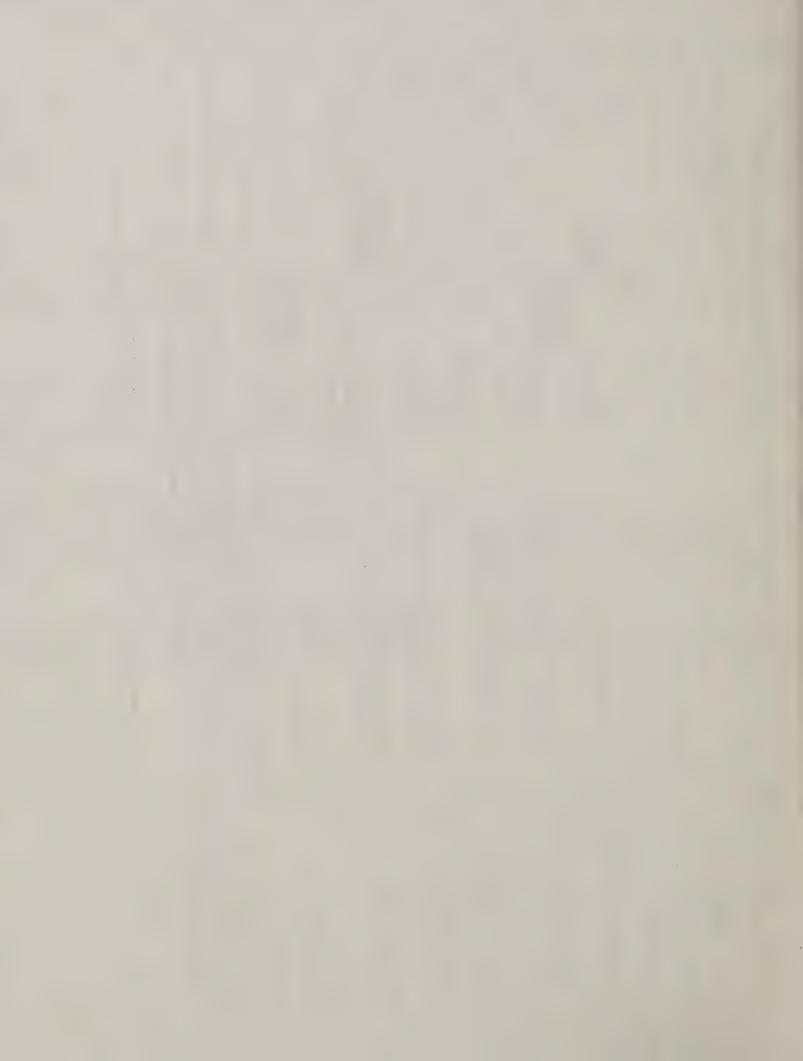


Table C-1. Estimated of the Marginal Propensity to Consume Food at Home out of Various Income Sources from Selected Studies of Low-Income Households-Continued

			Estimated Marginal Propensities to Consume Food From:	mated Marginal Propensities to Consume Food From:
Study (1)	Data Used (2)	Sample Size (3)	Food Stamps (4)	Money Income (5)
Chen (1983)				
Senauer and Young (1986)	1979 Michigan PSID Data	FSP participants, n = 574	78	.00
Frake, Long, and Post (1990)	1985 Continuing Survey of Food Intakes of Individuals	Households eligible or FSP and WIC Program, n = 515	84	.05
Ranney and Kushman (1987)	4-State Survey carried out in 1979-80	FSP Participants n = 310	.62	₹.
Levedahl (1991)	1979-1980 Survey of Food Consumption in Low-Income Households	FSP Participants n = 1,210	<b>.</b> 69:	.19*
Ohls, Fraker, Martini, and Ponza (1992)	San-Diego Cash-Out Demonstration	536 coupon and 541 cash households randomingly assigned	78	¶II.
Fraker, Martini, Ohls, Ponza, and Quinn (1992)	Alabama "Pure" Cash-Out Demonstration	1,080 coupon and 1,209 cash households randomingly assigned	.31	316

Sources: Fraker (1990), Ohls and Beebout (1993) and recent FNS cashout studies.

1. The average reduction (slippage) in food expenditure per dollar of food stamp benefits converted to cash was 11 cents. In this study, slippage is not equal to the difference between the marginal propensities because the MPC's are non-linear functions of the level of food stamps and income.

b. Based on model specification, the reduction (slippage) in food expenditure per dollar of food stamp benefits converted to each equals the difference between the marginal propensities. This interpretation required that the marginal propensities be constant at all levels of income and food stamp benefits.

Table C-1. Estimates of the Marginal Propensity to Consume Food at Home out of Various Income Sources from Selected Studies of Low-Income Households

Study			Estimated Marginal Propensities to Consume Food From:	Estimated Marginal Propensities to Consume Food From:
(1)	Data Used (2)	Sample Size (3)	Food Stamps (4)	Money Income
Studies Using Data from Before the Elimination of the Purchase Requirement			,	
Hymans and Shapiro (1976)	1968-1972 Michigan PSID Data	n = 3,318	.3564	.1417
West (1984)	1973-1974 Consumer Expenditure Diary Survey	FSP participants, n = 587;	.17	NA
		FSP eligibles, n = 2,254;	.47	NA
Salathe (1980)	1973-1974 Consumer Expenditure Diary Survey	FSP participants, n = 2,254;	.36	99:
Brown, Johnson, and Rizek (1982)	1977-1978 Low-Income (LI) Supplement to the Nationwide Food Consumption Survey (Weighted Data)	FSP participants, n = 911	45	.05
Smallwood and Blaylock (1985)	1977-1978 LI Supplement to the Nationwide Food Consumption Survey (Unweighted Data)	FSP eligibles, n = 2,852	.23	.10
Chen (1983)	1977-1978 LI Supplement to the Nationwide Food Consumption Survey (Unweighted Data)	FSP participants, n = 1,809	.20	60.
Devaney and Fraker (1989)	1977-1978 LI Supplement to the Nationwide Food Consumption Survey	FSP eligibles, n = 4,473	.2142	80 70.
Studies Using Data from After the Elimination of the Purchase Requirement	1979-1980 LI Supplement to the Nationwide Food Consumption Survey	FSP participants, n = 1,630	.23	II.

Table B-5 - Alternative Scenarios - Changes in Jobs

	1 1000								
SECTORS:	JOBS 1993		SHORT RUN CHANGES IN JOBS (in 1000s)						
	BASE RUN		SCENARIOS:						
	(1000s)	1	11	111	IV	V			
FOOD:	14500	-17.6	-41.1	-73.4	-91.0	-176.2			
FARM PRODUCTS	2600	-3.6	-8.3	-22.8	-28.5	-170.Z -56.4			
FOOD PROCESSING	1700	-2.8	-6.6	-19.3	-24.3	-30.4 -48.4			
TRADE&TRANS-FOOD	2700	-4.3	-10.0	-28.9	-36.2				
RESTAURANT	7700	-6.9	-16.2	-2.4	-2.0	-72.2			
NON-FOOD:	112900	-103.2	-78.9	-53.1	-38.0	8.0			
NON-DURABLE MFG	4700	-7.3	-5.6	-4.0		37.8			
DURABLE MFG	14700	-11.7	-8.9	-7.6	-3.9 7.5	-0.6			
CONSTRUCTION	6600	-1.9	-1.4	-7.6 -1.1	-7.5	-4.2			
TRADE&TRANS-OTHER	24600	-23.1	-17.7	-1.1 -15.1	-1.0	-0.2			
SERVICES	62100	-59.2	<b>45.3</b>	-25.3	-5.7	23.7			
TOTAL	127500	-120.8	-120.0	-126.5	-20.0 -129.0	19.1			
SECTOR:	JOBS 1993	LONG-RUN CHA				-138.5			
		LONG-RUN CHANGES IN JOBS IN A DEFICIT-REDUCTION REGIME (1000*) SCENARIOS:							
	BASE RUN								
FOOD:	(1000s)		11	111	IV	V			
FARM PRODUCTS	14500	-8.5	-19.8	-43.3	-56.1	-128.0			
FOOD PROCESSING	2600	-1.3	-3.1	-15.5	-19.4	-45.3			
TRADE&TRANS-FOOD	1700	-1.3	-2.9	-12.6	-15.8	-36.3			
RESTAURANT	2700	-1.6	-3.6	-19.3	-24.2	-56.1			
NON-FOOD:	7700	-4.3	-10.1	4.0	3.2	9.7			
NON-DURABLE MFG	112900	8.5	19.8	43.3	56.1	128.0			
DURABLE MFG	4700	-2.4	-1.8	0.5	0.7	2.1			
CONSTRUCTION	14700	21.0	20.0	14.6	24.2	15.4			
TRADE&TRANS-OTHER	6600	22.6	21.6	15.1	23.1	17.5			
SERVICES	2.000	0.1	5.3	13.6	8.6	67.2			
TOTAL	62100	-32.9	-25.2	-0.5	-0.5	25.8			
	127500	0.0	0.0	0.0	0.0	0.0			
SECTOR:	JOBS 1993	LONG-RUN CH	IANGES IN JOBS	IN A TAX-REDI	UCTION REGIM	E (1000s)			
	BASE RUN			CENARIOS:		• •			
	(1000s)	1	H	111	IV	V			
FOOD:	14500	-3.3	-7.8	-36.0	-49.4				
FARM PRODUCTS	2600	-0.8	-1.8	-14.9	-18.6	-118.3			
FOOD PROCESSING	1700	-0.6	-1.5	-11.9	-14.9	<b>-44.0</b>			
TRADE&TRANS-FOOD	2700	-0.9	-2.2	-18.8	-23.6	-35.2			
RESTAURANT	7700	-1.0	-2.4	9.5		-55.5			
NON-FOOD:	112900	3.3	7.8	36.0	7.7 49.4	16.4			
NON-DURABLE MFG	4700	0.1	0.2	2.1		118.4			
DURABLE MFG	14700	1.0	2.3	2.1	4.0	6.2			
CONSTRUCTION	6600	0.9	2.3		4.7	4.7			
TRADE&TRANS-OTHER	24600	2.2		0.7	1.2	0.6			
SERVICES	62100	-0.8	5.2 -1.9	9.7	7.1	41.7			
TOTAL	127500	0.0	0.0	0.0	32.4	65.2			
	127300	0.0	0.0	0.0	0.0	0.0			

Table B-4 - Alternative Scenarios - Changes in Output

SECTOR:	OUTPUT 1993					
	001701 1993		SHORT-RUN	CHANGES IN OUT	PUT (\$Billions)	
	BASE RUN			SCENARIOS:		
5000	(\$Billions)		11	111	IV	V
FOOD:	880	-1.19	-2.77	-6.46	-8.07	-15.88
FARM PRODUCTS FOOD PROCESSING	180	9.20	-0.58	-1.59	-2.00	-3.95
TRADE&TRANS-FOOD	330		-1.23	-3.57	-4.48	-8.92
RESTAURANT	110	1	-0.42	-1.22	-1.53	-3.04
NONFOOD:	260	0.20	-0.53	-0.08	-0.07	0.03
NON-DURABLE MFG	8160	-8.15	-6.23	-4.15	-3.28	1.86
DURABLE MFG	490	0.72	-0.55	-0.43	-0.42	-0.15
CONSTRUCTION	2000	1.01	-1.38	-1.12	-1.10	-0.50
TRADE&TRANS-OTHER	610	0.17	-0.13	-0.10	-0.09	-0.02
SERVICES	1	-1.05	-0.80	-0.75	-0.28	0.88
TOTAL	3930	-4.40	-3.36	-1.76	-1.39	1.65
SECTOR:	9040	-9.34	-9.00	-10.61	-11.34	-14 02
SECTOR;	OUTPUT 1993	LONG-RUN CHA	NGES IN OUTPL	IT IN A DEFICIT-RE	DUCTION REGIM	E (\$Billions)
	BASE RUN			- (************************************		
	(\$Billions)	1	11	SCENARIOS:	IV T	
FOOD:	880	-0.46	-1.08	-4.00		٧
FARM PRODUCTS	180	-0.07	-0.17		-5.07	-11.64
FOOD PROCESSING	330	-0.19	-0.44	-0.92	-1.15	-2.68
TRADE&TRANS-FOOD	110	-0.06	-0.15	-2.38 -0.81	-2.99	-6.93
RESTAURANT	260	-0.14	-0.33	0.12	-1.02	-2.36
NONFOOD:	8160	3.04	2.32	4.95	0.10 4.32	0.33
NON-DURABLE MFG	490	-0.16	-0.12	0.03	0.03	8.31
DURABLE MFG	2000	2.51	1.92	2.22	2.19	0.29
CONSTRUCTION	610	2.17	1.66	1.94	1.78	1.99
TRADE&TRANS-OTHER	1140	0.18	0.14	0.66	0.25	1.70
SERVICES	3930	-1.66	-1.27	0.09	0.23	1.67
TOTAL	9040	2.57	1.24	0.95	-0.75	-3.32
SECTOR:	OUTPUT 1993	LONG-RUN CHAN	GES IN OUTPUT	IN A TAX-REDUC	TION RECIVE (C	3.32
				SCENARIOS:	HOW HE GIME (\$	oillions)
	BASE RUN (\$Billions)					
FOOD:	880	-0.23	11	111	IV	٧
FARM PRODUCTS			-0.53	-3.71	-4.78	-11.35
FOOD PROCESSING	180   330	-0.04	-0.10	-0.89	-1.12	-2.65
TRADE&TRANS-FOOD		-0.11	-0.27	-2.32	-2.91	-6.85
RESTAURANT	110	-0.04	-0.09	-0.79	-0.99	-2.33
NONFOOD:	8160	-0.03	-0.08	0.29	0.24	0.48
NON-DURABLE MFG	490	0.51	0.39	2.83	1.99	6.08
DURABLE MFG	2000	0.00	0.00	0.19	0.18	0.44
CONSTRUCTION	610	0.23	0.18	0.11	0.11	-0.10
TRADE&TRANS-OTHER	1140	0.17	0.13	0.01	0.01	-0.15
SERVICES	3930	0.18	0.14	0.73	0.27	1.71
TOTAL	9040	-0.08	-0.06	1.80	1.42	4.18
	3040	0.28	-0.15	-0.88	-2.79	-5.27

Commodity	Scenario						
Continodity	I	11	111	IV	V		
Broilers Farm price (\$/cwt) Farm income(\$mil.) Farm income (%) Program Cost (\$mil.)	18 -20 3 0	42 -46 7	-1.01 -111 -1.6 0	-1.25 -137 -2.0 0	-2.50 -275 -4.0 0		
Turkeys Farm price (\$/cwt) Farm income(\$mil.) Farm income (%) Program Cost (\$mil.)	13	31	75	93	-1.86		
	-5	-12	-29	-36	-73		
	2	4	-1.0	-1.2	-2.4		
	0	0	0	0	0		
Dairy (no NSLP loss) Farm price (\$/cwt) Farm income(\$mil.) Farm income (%) Program Cost (\$mil.)	01	02	05	-0.07	13		
	-25	-54	-122	-159	-315		
	1	3	6	8	-1.5		
	13	31	80	95	191		
Dairy (25% NSLP loss) Farm price (\$/cwt) Farm income(\$mil.) Farm income (%) Program Cost (\$mil.)	04	05	08	09	16		
	-90	-120	-194	-224	-380		
	4	6	-1.0	-1.1	-1.9		
	50	68	114	132	228		
Dairy (75% NSLP loss)  Farm price (\$/cwt)  Farm income(\$mil.)  Farm income (%)  Program Cost (\$mil.)	09	11	14	15	22		
	-220	-250	-324	-354	-501		
	-1.1	-1.2	-1.6	-1.7	-2.4		
	124	142	188	206	302		

<sup>\*</sup> less than 0.005.

Notes: Farm income is gross. There is no measurable impact on seafood.

Table B-3 - Direct Impacts on Agriculture of Alternative Food Assistance Reform Scenarios: Farm Price, Farm Income, and Farm Program Costs

Commodity			Scenario		,
	1	11	III	IV	V
Potatoes Farm price (\$/cwt) Farm income(\$mil.) Farm income (%) Program Cost (\$mil.)	-4 2 0	-0.01 -10 4 0	02 -25 9 0	02 -30 -1.2 0	05 -61 -2.3
Vegetables Farm price (\$/cwt) Farm income(\$mil.) Farm income (%) Program Cost (\$mil.)	01 -24 3 0	03 -57 6 0	07 -138 -1.5	08 -171 -1.8 0	•.16 •341 •3.7
Fruits Farm price (\$/ton) Farm income(\$mil.) Farm income (%) Program Cost (\$mil.)	3 -19 2 0	7 -45 5 0	-1.72 -109 -1.3 0	-2.12 -134 -1.6 0	-4.24 -268 -3.2 0
Tree nuts Fam price (\$/cwt) Farm income(\$mil.) Farm income (%) Program Cost (\$mil.)	-2 1 0	-4 2 0	-0.01 -10 -0.6 0	01 -12 -0.7 0	01 -24 -1.4
Peanuts without loss of Sec. 32 Farm price (\$/ST) Farm income(\$mil.) Farm income (%) Program Cost (\$mil.)	0 0 0 1	0 0 0 2	0 0 0 4	0 0 0 0 8	-3 -6 -0.6 14
Peanuts with loss of Sec. 32 Farm price (\$/ST) Farm income(\$mil.) Farm income (%) Program Cost (\$mil.)	-10 -20 -2.0 24	-10 -20 -2.0 25	-10 -20 -2.0 27	-10 -20 -2.0 31	-13 -26 -3.0 37
Grain and soybeans Farm price (\$/MT) Farm income(\$mil.) Farm income (%) Program Cost (\$mil.)	20 -20 • 25	40 -40 1 50	80 -80 3 100	98 -100 3 125	-1.97 -200 7 250
Beef Farm price (\$/cwt) Farm income(\$mil.) Farm income (%) Program Cost (\$mil.)	39 -58 3 0	64 -134 6 0	-1.25 -327 -1.4 0	-1.60 -404 -1.7	-2.77 -808 -3.5 0
Pork Farm price (\$/cwt) Farm income(\$mil.) Farm income (%) Program Cost (\$mil.)	15 -24 2 0	-,35 -55 -,5 0	85 -134 -1.3 0	-1.05 -166 -1.7 0	-2.10 -331 -3.3 0

Table B-2 — Direct Impacts of Alternative Food Assistance Reform Scenarios on Food and Nonfood Spending (Dollars in millions)

Food Group	Food Budget Share		Redi			
	%	1		Scenario III	IV	V
Total	21.0					
Nonfood	NA	5,000	5,000	5,000	5,000	5,000
	NA	4,250	3,250	750	-250	-5,501
Food	100.00	750	1,750	4,250	5,250	10,501
Dairy products	14.12	106	247	600	744	4 400
Fluid milk	6.23	47	109	265	741	1,482
Cheese	3.75	28	66	205 159	327	654
Butter	1.04	8	18	44	197	394
Other	3.10	23	54	132	55 163	110
Grain products Meat, poultry,	15.27	115	267	649	802	325 <b>1,604</b>
and seafood	33.79	253	504	4 400		
Beef	13.71		591	1,436	1,774	3,548
Pork	8.52	103 64	240	583	720	1,439
Other	0.96	7	149	362	447	894
Poultry	6.54	49	17	41	50	100
Fish and seafood	4.07	31	114	278	343	687
Eggs	1.54	12	71	173	214	427
Sugars and sweets	4.02		27	66	81	162
White and brown sugars	1.71	30	70	171	211	422
Other	2.31	13	30	73	90	179
Potatoes	2.34	17	40	98	121	242
Fresh potatoes		18	41	99	123	245
Canned potatoes	1.16 0.08	9	20	49	61	122
Frozen potatoes	- 0.21	1	1	3	4	8
Other potatoes	0.89	2 7	4	9	11	22
Vegetables	9.40		16	38	47	94
Fresh vegetables	6.02	70	164	399	493	987
Canned vegetables	2.17	45	105	256	316	633
Frozen vegetables	0.86	16	38	92	114	228
Other vegetables	0.34	6 3	15	37	45	90
Fruit	6.51		6	15	18	36
Fresh fruit	5.65	49	114	277	342	683
Canned fruit	0.66	42 5	99	240	297	593
Frozen fruit	0.05	•	12	28	35	69
Other fruit	0.15	0	1	2	3	5
Vuts	1.15	9		6	8	16
Peanuts			20	49	60	121
Other	0.86 0.29	6	15	37	45	90
ats and Oils	1.60	2	5	12	15	30
Shortening		12	28	68	84	168
Salad and cooking	0.33	2	6	14	17	35
Salad dressing	0.46 0.81	3	8	20	24	48
ther foods	10.28	6	14	34	43	85
	10.20	77	180	437	540	1,079

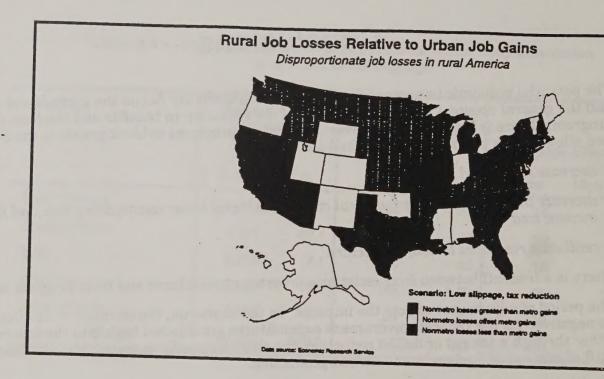
Note: Negative numbers in this table denote an increase in expenditures.

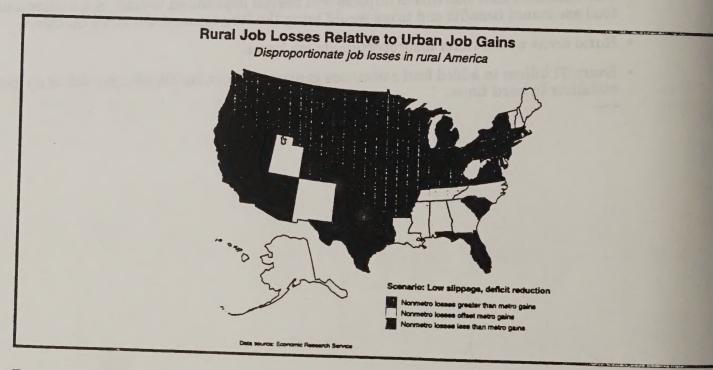
Table B-1 — Food Spending Effects of Food Assistance Supplementation and Block Grant Slippage

Program	Federal Food Assistance Spending \$ million %		Supplementation Effect		Slippage Effect	
			Low	High	Low	High
Food Stamps	24,745	60.7	.20	.45	.15	.30
Child Nutrition	8,321	20.4	.00	.40	.00	.10
WIC	2,908	7.1	.20	.45	.15	.30
All Other	1,420	3.5	.45	1.00	.05	.40
Administration	3,370	8.3	.00	.00	.00	.00
TOTAL	40,764	100.0	.15	.42	.10	.24

## Conclusions

- The potential economic impacts of the Personal Responsibility Act on the agricultural sector
  and the general economy depend on the size of the reduction in benefits and the form of the
  program. There is evidence that converting existing programs to block grants to the States
  and allowing the programs to be cashed out will:
  - decrease retail food spending;
  - decrease the demand for agricultural commodities and lower commodity prices and farm income; and
  - reallocate resources to nonfood sectors.
- There is a tradeoff between food assistance program expenditures and farm program costs.
- The period of adjustment affects the impacts. In the short-run, the economy-wide effects will be negative. As the reduced government expenditures are injected back into the economy, either through a tax cut or deficit reduction, the short-term effects are mitigated. There is a shift of jobs out of food and into nonfood production.
- The likelihood that short-term impacts will prevail depends on timing. A simultaneous cut in food assistance benefits and taxes would bring the long-term results more quickly.
- Rural areas would suffer disproportionate job losses.
- Every \$1 billion in added food assistance generates about 25,000 jobs, providing an automatic stabilizer in hard times.





## Rural Job Losses Versus Urban Job Gains by State

Disproportionate job losses occur in rural America.

Those states in red have rural job losses greater than urban job gains. These states

have a higher share of rural food production jobs, and low diversity in production activity.

Those states in green have urban job gains greater than rural job losses as a result of greater diversity in non-food and food production. Some of these states have high rural job losses, but they are offset by urban job gains (Texas and California).



