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FoodReview

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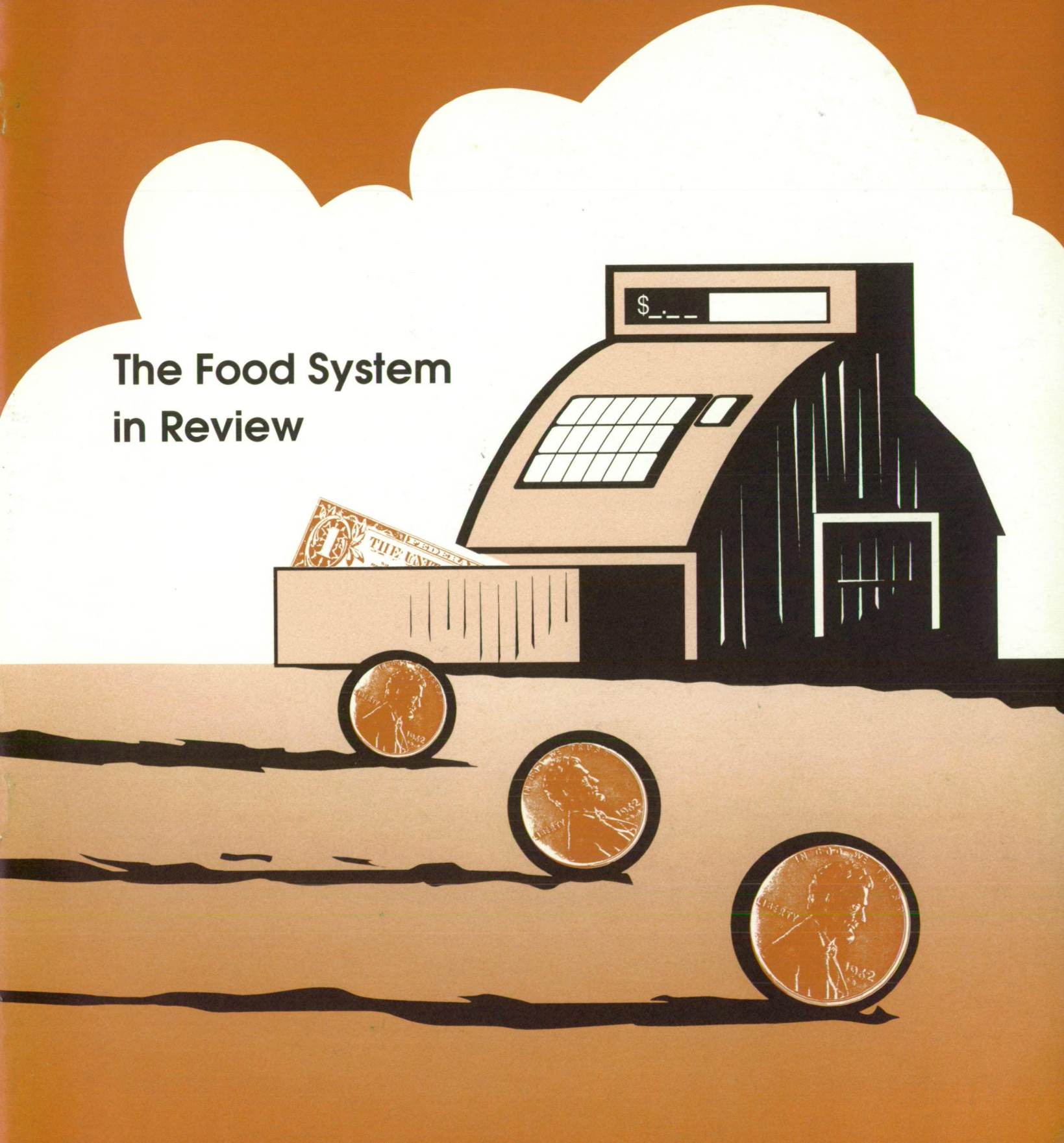
The Food System in Review



Upfront

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FoodReview

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1991 Rise in Retail Food Prices Was the Smallest Since 1985

Ralph Parlett
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With lower farm prices for some commodities and the downturn in the general economy, retail food prices rose in 1991 by the smallest amount since 1985. As measured by the consumer price index (CPI), food prices rose 2.9 percent in 1991, compared with 5.8 percent in both 1989 and 1990 (table 1).

Prices for food sold in supermarkets and grocery stores rose more slowly than at eating places, reversing the trend during the past 4 years. The CPI for food sold in supermarkets and grocery stores (food for at-home consumption) rose 2.6 percent in 1991. The CPI for food in restaurants and fast food establishments (food away from home) rose 3.4 percent, the smallest increase since 1965. Both components rose more slowly than the 4.2-percent increase in the CPI for all goods and services.

Farm prices were lower due to larger supplies of red meats, poultry, dairy products, and orange juice. A sluggish economy dampened rises in processing and distribution costs. On the demand side, a reduction in disposable personal income (adjusted for inflation) squeezed consumers' budgets and their expenditures for food.

Record Meat Supplies Capped Price Increases

Moderation in price increases for meats and a decline in poultry prices were the major factors in keeping the CPI for food rising slowly in 1991. Meat and poultry account for a large share of consumer food expenditures (about 21 percent) and, therefore, have a strong influence on the CPI for food.

Record livestock supplies kept a lid on meat prices, as farmers ex-

Larger supplies and lower prices of chickens and turkeys pushed down the CPI for poultry.

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Table 1
Annual Rise in Retail Food Prices Was Much Smaller in 1991

Food	1989	1990	1991
	Annual percent change in the CPI		
All food	5.8	5.8	2.9
Food at home	6.5	6.5	2.6
Meat	4.0	10.1	3.1
Beef and veal	6.4	8.0	2.8
Pork	.6	14.7	3.3
Poultry	9.9	-.2	-.8
Fish and seafood	4.5	2.2	1.1
Eggs	26.6	4.7	-2.3
Dairy products	6.6	9.4	-1.1
Fresh fruit	6.6	12.1	13.5
Fresh vegetables	10.7	5.6	2.2
Processed fruit and vegetables	6.3	6.2	-1.9
Cereals and bakery products	8.4	5.7	4.1
Sugar and sweets	4.7	4.4	3.7
Fats and oils	7.2	4.2	4.3
Nonalcoholic beverages	3.5	2.0	.5
Other prepared foods	6.4	4.5	4.5
Food away from home	4.6	4.7	3.4

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panded production in response to the high prices of previous years. Larger beef and pork supplies started showing up in the second half of 1991. By the third quarter, retail prices began dropping. However, the price declines were not enough to offset the increases in the first half. Although the CPI for red meat rose, the increase was a third less than in 1990.

Poultry production grew 5 percent in 1991. The relatively high prices for red meat at the beginning of the year kept consumer demand for chicken and turkey strong and poultry prices stable. When red meat prices fell in the third quarter, prices for chicken and turkeys also dropped, pushing down the CPI for poultry.

Large supplies of milk, especially at the beginning of the year, forced an abrupt change in the CPI for dairy products. Retail dairy prices rose to a 10-year high in 1990, following low milk production and strong consumer demand for processed products. As production rebounded in early 1991, lower farm prices moderated retail prices. As the year progressed, retail prices started climbing again as milk production fell slightly. However, the 1991 CPI for dairy products declined as lower prices for fresh milk offset the higher prices for processed products.

California Freeze Drove Up Fresh Fruit Prices

Prices of fresh fruit rose 13.5 percent in 1991 after a severe freeze late in December 1990 damaged California citrus fruit. Since California supplies 80-85 percent of fresh oranges each season, the loss greatly reduced supplies, and prices climbed sharply.

With oranges priced high and in short supply, consumers shifted to other fruit. The added demand pushed up prices for these substitutes as well, raising the CPI for fresh fruit.

In contrast, the CPI for processed fruit dropped in 1991. Florida's crop of oranges for juicing was particularly large, resulting in expanded supplies—and, therefore, lower prices of frozen concentrated orange juice.

Vegetable prices, for both fresh and processed, were up in 1991. The CPI for fresh vegetables rose due to sporadic supplies of lettuce, tomatoes, peppers, and cucumbers caused by unusual weather patterns.

Sluggish Economy Reduced Buying Power

The downturn in the general economy in 1991 had a greater effect on retail food prices than did fluctuations in commodity prices.

Consumer demand for food was dampened. Real per capita disposable personal income (income after taxes and adjusted for inflation) shrank by 1.3 percent in 1991. With less buying power, food expenditures often get cut down in order to pay fixed monthly expenses, such as loan payments and rent. Higher priced foods with added services, such as prepared foods and restaurant meals, are generally sacrificed in favor of less expensive and more

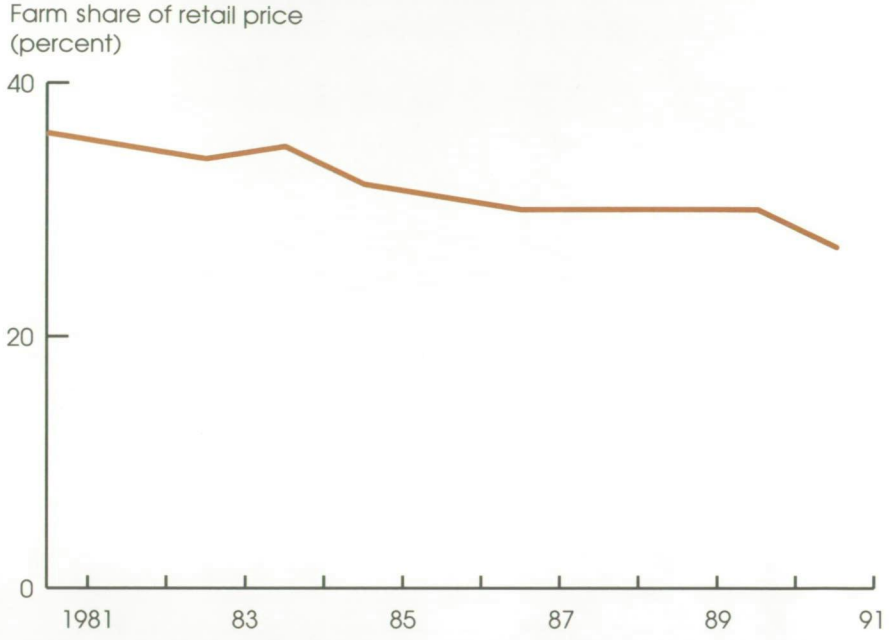
'Market Basket' Tracks Price Changes

USDA uses its market basket concept to track price changes for food commodities that farmers sell and consumers buy in grocery stores. The market basket contains the annual average quantities of foods purchased per household in a base period. It excludes fish and seafood, nonalcoholic beverages, and bananas. Retail price indexes for the market basket are components of the CPI for food at home, and are broken into two parts:

- Farm value is the return, or payment farmers receive, for raw commodities equivalent to foods in the market basket.
- Farm-to-retail price spread is the difference between the retail price and the farm value. The price spread is the charge for processing, wholesaling, and retailing foods.

The farm-value share, a related concept, is the proportion farmers get from the amount consumers spend on the market basket of food purchased in grocery stores.

Figure 1
Farmers' Share of Consumers' Food Dollar Continues To Slide



basic foods, such as those prepared from scratch at home.

With budgets squeezed, total food expenditures rose less than the increase in prices, 2.6 percent compared with 2.9 percent. When combined with a growing population, the small increase in expenditures relative to prices implies that the quantity of food and related services purchased declined. Because the price index is for a fixed basket of foods, it is impossible to know if consumers bought less quantity or switched from higher priced value-added foods (such as frozen french fries) to more basic foods (such as raw potatoes).

Farmers' Share of Food Prices Fell

The farm-value share of food purchased in grocery stores—the proportion of the retail price that farmers receive—decreased from 30 percent in 1990 to 27 percent in 1991 (fig. 1), reflecting both lower farm values and higher costs of processing and marketing services.

The average farm value of food fell over 6 percent in 1991, reflecting lower farm prices of most commodities. Of the 10 categories of food prices tracked over time (called the market basket—see box), the farm value for 9 declined. Decreases in farm value were largest for processed fruit and vegetables (16 percent), dairy products (11 percent), fresh vegetables (11 percent), and fats and oils (9 percent) (table 2). The farm value of fresh fruit increased 37 percent, reflecting effects of the California citrus freeze.

The farm value of red meats and poultry products declined, as prices paid to farmers for livestock fell. The farm value for red meat (which accounted for 36 percent of the market basket) fell 6 percent, and the value for poultry dropped 5 percent.

Sharply lower producer prices for fluid milk depressed the farm value of dairy products by 11 percent. A half gallon of fluid milk retailing for $1.37 returned the producer about 54 cents in 1991, 9 cents below 1990 (table 3).

The farm value of cereals and baked goods declined 6 percent in 1991, mainly due to lower prices of

wheat and rice. Farmers received 3.4 cents for the wheat in a 1-pound loaf of bread selling for 71 cents. The 1991 farm value of other bread ingredients, mainly shortening and sweeteners, was 0.6 cents.

Farm-to-Retail Price Spread Widened

With retail prices up, farm value down, and food processing and marketing expenses up, the farm-to-retail price spread widened in 1991 (table 2). The increase was lower than last year's, but higher than the 1981-91 average.

Several factors expanded the price spread, including greater use and higher prices for processing and marketing inputs. For example, new products, such as microwavable foods, have increased the use of packaging materials, while instore services such as salad bars and bakeries require more labor. Prices of inputs used in processing and marketing food rose an average 2.6 percent in 1991, as measured by the ERS Marketing Cost Index.

The farm-to-retail price spread for meats increased about 11 percent in 1991, the largest increase among the 10 market basket food groups.

Much of the increase reflects a 14-percent increase in the price spread for beef.

Processors and retailers were able to widen their price spread (margins) as cattle prices fell. For several years, processors and retailers resisted raising margins when cattle prices were rising. They were reluctant to pass on all price increases so as to minimize decreases in consumer demand. From 1986 to 1990, the price spread for beef increased only about 11 percent, while the farm value rose 35 percent and retail prices went up 24 percent.

Table 2
The Gap Between Farm and Retail Prices Widened for All Food Groups in 1991

Group and price components	1981	1990	1991	Annual change 1981-91	Annual change 1990-91
	—Index (1982-84 = 100)—			—Percent—	
Market basket:					
Retail price	94.7	133.5	137.4	3.8	2.9
Farm value	99.8	113.1	106.1	.6	-6.2
Farm-to-retail spread	92.1	144.5	154.2	5.3	6.7
Meats:					
Retail price	96.0	128.5	132.5	3.3	3.1
Farm value	97.0	116.8	110.0	1.3	-5.8
Farm-to-retail spread	95.1	140.4	155.6	5.0	10.8
Dairy:					
Retail price	97.4	126.5	125.1	2.5	-1.1
Farm value	101.9	101.7	90.0	-1.2	-11.5
Farm-to-retail spread	93.2	149.5	157.5	5.4	5.4
Poultry:					
Retail price	97.5	132.5	131.5	3.0	-.8
Farm value	94.5	107.6	102.5	.8	-4.7
Farm-to-retail spread	100.7	161.1	164.9	5.1	2.4
Eggs:					
Retail price	95.9	124.1	121.2	2.4	-2.3
Farm value	99.0	108.0	100.9	.2-6	.6
Farm-to-retail spread	90.4	153.2	157.6	5.7	2.9
Cereal and bakery:					
Retail price	92.3	140.0	145.8	4.7	4.1
Farm value	109.6	90.5	85.3	-2.5	-5.7
Farm-to-retail spread	90.2	146.9	154.3	5.5	5.0
Fresh fruit:					
Retail price	88.3	174.6	200.1	8.5	14.6
Farm value	87.4	128.3	175.1	7.2	37.0
Farm-to-retail spread	88.6	195.9	211.3	9.1	7.9
Fresh vegetables:					
Retail price	93.7	151.1	154.4	5.1	2.2
Farm value	103.6	124.4	110.8	.7	-10.9
Farm-to-retail spread	89.8	164.9	176.8	7.0	7.2
Processed fruit and vegetables:					
Retail price	92.5	132.7	130.2	3.5	-1.9
Farm value	105.6	144.0	120.6	1.3	-16.3
Farm-to-retail spread	89.2	129.1	133.2	4.1	3.2
Fats and oils:					
Retail price	98.9	126.3	131.7	2.9	4.3
Farm value	100.4	107.1	97.7	-.3	-8.8
Farm-to-retail spread	98.3	133.4	144.3	3.9	8.2
Other prepared food:					
Retail price	97.0[1]	131.2	137.1	3.9	4.5
Farm value	97.3[1]	117.1	104.7	.8	-10.6
Farm-to-retail spread	96.9[1]	133.4	142.3	4.4	6.7

[1]Data for 1982.

The farm-to-retail price spread for pork increased about 6.5 percent in 1991 after farm prices fell. In 1990, the retail price spread

Table 3
Animal Products Returned to Farmers the Greatest Share of Retail Prices

Food	Retail price	Farm value	Farm value share of retail price
	—Dollars—		Percent
All foods	N/A	N/A	27
Animal products:			
Eggs, Grade A large, 1 doz	.99	.59	60
Beef, Choice, 1 lb	2.88	1.60	56
Chicken, broiler, 1 lb	.88	.44	49
Milk, 1/2 gal	1.37	.54	40
Pork, 1 lb	2.12	.78	37
Cheese, natural cheddar, 1 lb	3.55	1.09	31
Fruits and vegetables:			
Fresh—			
Oranges, California, 1 lb	.89	.36	40
Lemons, 1 lb	1.23	.38	31
Potatoes, Northeast, 10 lbs	2.66	.76	28
Apples, Red Delicious, 1 lb	.88	.24	27
Grapefruit, 1 lb	.62	.13	21
Lettuce, 1 lb	.61	.09	14
Frozen—			
Orange juice concentrate, 12 fl oz	1.38	.53	38
Broccoli, cut, 1 lb*	1.18	.26	22
Peas, 1 lb*	.99	.14	14
Corn, 1 lb*	1.00	.13	13
Green beans, cut, 1 lb*	1.02	.11	11
Canned and bottled—			
Apple juice, 64-oz bottle*	1.48	.34	23
Apple sauce, 25-oz jar*	.95	.18	19
Peas, 17-oz can*	.48	.09	19
Corn, 17-oz can*	.46	.09	19
Pears, No. 2-1/2 can*	1.19	.22	18
Peaches, cling, No. 2-1/2 can*	1.11	.18	16
Green beans, cut, 17-oz can*	.45	.06	14
Tomatoes, whole, 17-oz can*	.53	.05	10
Dried—			
Beans, 1 lb*	.65	.18	28
Raisins, 15-oz box*	1.41	.39	28
Crop products:			
Sugar, 1 lb	.40	.15	37
Flour, wheat, 5 lbs	1.17	.28	24
Shortening, 3 lbs	2.61	.61	23
Margarine, 1 lb	.87	.17	20
Rice, long grain, 1 lb	.50	.10	20
Prepared foods:			
Peanut butter, 1 lb	2.15	.51	24
Potato chips, regular, 1-lb bag	1.96	.31	16
Pork and beans, 16-oz can*	.41	.06	14
Frozen chicken dinner, fried, 11 oz*	1.21	.15	12
Frozen potatoes, french fried, 1 lb	.85	.10	12
Bread, 1 lb	.71	.04	6
Corn flakes, 18-oz box*	1.67	.09	5
Oatmeal, regular, 42-oz box*	2.58	.14	5
Corn syrup, 16-oz bottle*	1.38	.05	4

*January-June 1991 average. N/A = Not applicable.

jumped 11 percent when pork supplies were limited and prices were up.

Fluctuations in the marketing spread for beef and pork partly reflect retail merchandising practices designed to maximize total meat department sales and profits. Retailers may minimize price changes for customers by not fully adjusting margins with each change in commodity and marketing costs. Added revenues from one meat may offset lower revenues from another for a period. But over time, each meat must generate its share of profits, and margins will adjust to cover all costs. (For more information about meat price spreads see, "Meat Price Spreads Are Not Proof of Price Gouging," in the October-December 1991 issue of *FoodReview*.)

The price spread for poultry rose only 2 percent in 1991, compared with an increase of 7 percent in 1990. The small rise resulted from large supplies forcing down retail prices.

The price spread for dairy products increased 5 percent in 1991, significantly below the over 14-percent jump in 1990. For the first quarter of 1991, the spread was about 10 percent higher than a year earlier as farm prices dropped. But, steady retail prices and a slight increase in the farm value of milk caused the spread to narrow in the second half of the year. By the fourth quarter, the spread was lower than a year earlier.

Cereals and bakery products accounted for 20 percent of the market basket. The spread for this category widened 5 percent in 1991, the smallest increase since 1988. This small increase reflected slowly rising processing and marketing costs and lower farm value of ingredients. ■

Per Capita Food Spending Up 25 Percent in 4 Years

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From 1986 to 1990, after-tax household income rose 25 percent. Food spending kept pace, also rising 25 percent. Consequently, the 15-percent share of after-tax household income allocated to food did not change.

However, spending for some food categories rose faster than for others. For example, spending for cereals and bakery products jumped 34 percent, while beef and pork spending climbed 15 and 14 percent, respectively. Spending for eggs remained level.

Spending Changes With Income

U.S. per capita food spending rose from $1,326 in 1986 to $1,652 in 1990. As expected, lower income households spent less on virtually all food items than wealthier households (table 1). In 1990, for example, the lowest income households spent $894 per person on food at home and $440 on food away from home. The highest income households spent $1,097 per person on food at home and $1,131 on food away from home.

The authors are agricultural economists in the Commodity Economics Division, Economic Research Service, USDA.

Annual food expenditures rose to $1,652 per person in 1990.

Table 1
Food Spending Increased Fastest for the Poorest Households

Item	1986 All	1986 Poorest 20 percent	1986 Middle 20 percent	1986 Richest 20 percent	1990 All	1990 Poorest 20 percent	1990 Middle 20 percent	1990 Richest 20 percent
	Dollars per household							
Income before taxes	25,460	3,811	19,534	61,477	31,889	5,637	24,500	76,660
Income after taxes	23,172	3,667	18,140	54,857	28,937	5,553	22,678	67,835
	Number							
Average number of persons in household	2.6	1.9	2.6	3.2	2.6	1.8	2.6	3.2
	Dollars per person							
Food expenditures	1,326	993	1,251	1,829	1,652	1,334	1,484	2,227
Food at home	767	654	753	928	956	894	895	1,097
Cereals and bakery products	106	96	104	129	142	129	130	168
Cereals and cereal products	36	38	35	39	50	48	48	56
Bakery products	70	59	69	89	92	81	82	112
Meats, poultry, fish, and eggs	216	194	212	248	257	261	245	276
Beef	73	61	72	88	84	89	85	88
Pork	45	42	44	48	51	55	49	49
Other meats	30	25	31	32	38	36	37	42
Poultry	33	31	29	38	42	42	37	46
Fish and seafood	25	22	22	31	32	27	26	41
Eggs	12	13	13	10	12	13	11	10
Dairy products	97	79	95	115	113	107	112	125
Fresh milk and cream	47	45	46	49	54	57	55	51
Other dairy products	49	35	49	66	60	50	57	75
Fruit and vegetables	123	110	118	150	157	151	145	183
Fresh fruit	39	35	36	49	49	46	44	60
Fresh vegetables	35	32	34	41	45	44	42	53
Processed fruit	28	24	27	37	36	33	33	41
Processed vegetables	21	21	22	23	27	29	25	29
Other food at home	213	168	215	266	287	246	264	345
Sugar and other sweets	28	22	27	37	36	32	32	42
Fats and oils	20	19	20	22	26	27	25	27
Miscellaneous foods	91	62	94	121	129	107	119	161
Nonalcoholic beverages	74	65	74	87	82	73	78	93
Food away from home	560	338	498	902	697	440	590	1,131
Alcoholic beverages	104	72	104	153	113	71	108	173

However, after-tax incomes rose faster for the poorest households than any other income group between 1986 and 1990 (table 1). Their after-tax incomes went up 51 percent, while gains for the other income groups ranged from 22 to 30 percent. Despite faster rising incomes, however, the gap between the poorest and richest households widened by $11,092 (table 1).

With the fastest rising incomes, the lowest income households also had the greatest percentage jump in per capita food spending, up 34 percent.

Per capita food spending by other households climbed between 18 and 32 percent. For example, spending on fish increased 45 percent for the lowest income households between 1986 and 1990, but only 32 percent for those with the highest incomes. Poultry spending also rose more in the poorest households, up 35 percent, than in the wealthiest ones, up 21 percent. However, per capita spending for alcoholic beverages declined slightly in the poorest households but rose 13 percent for their wealthiest counterparts.

For all household income groups except the richest, spending for food at home increased faster than for food away from home. This is especially true for the two lowest income groups. Spending for food at home rose 22 percent faster than for food away from home for the poorest households and 6 percent faster for the next poorest group. For the richest

Table 2
Food Spending Has Increased For Both Blacks and Whites

Item	1986 White	1986 Black	1990 White	1990 Black
	Dollars per household			
Income before taxes	26,505	16,964	33,070	22,461
Income after taxes	24,094	15,678	29,981	20,599
	Number			
Average number of persons in household	2.5	2.8	2.5	2.7
	Dollars per person			
Food expenditures	1,425	893	1,775	1,159
Food at home	810	615	1,011	788
Cereals and bakery products	112	83	151	107
Cereals and cereal products	37	34	52	44
Bakery products	75	49	99	63
Meats, poultry, fish, and eggs	220	234	264	270
Beef	76	65	88	78
Pork	44	60	51	65
Other meats	31	29	40	34
Poultry	32	42	42	49
Fish and seafood	25	26	33	31
Eggs	12	13	12	13
Dairy products	105	57	123	73
Fresh milk and cream	50	33	58	35
Other dairy products	54	24	65	37
Fruit and vegetables	130	98	165	135
Fresh fruit	42	28	52	39
Fresh vegetables	38	26	48	37
Processed fruit	29	25	37	34
Processed vegetables	22	19	28	24
Other food at home	230	140	308	203
Sugar and other sweets	30	21	38	28
Fats and oils	21	16	27	24
Miscellaneous foods	99	50	138	91
Nonalcoholic beverages	79	53	88	58
Food away from home	615	278	764	371
Alcoholic beverages	115	46	124	60

households, however, spending on food at home grew 28 percent more slowly than that for food away from home.

Changes in Spending Differed by Race

Between 1986 and 1990, after-tax income for black households rose faster than for white households, 31 percent versus 24 percent (table 2). Blacks also increased their food purchases at a faster rate, 30 percent, compared with 25 percent for whites.

Although food spending increased, there were different growth rates for different commodities. For example, blacks increased per capita spending on fruit and vegetables by 38 percent between 1986 and 1990, while the increase for whites was 27 percent. Spending on food away from home also rose faster for blacks than whites, 33 percent versus 24 percent.

However, black households spent considerably less per capita on food than did white households. In 1990, blacks spent $1,159 per capita and whites spent $1,775 (table 2). Helping to explain this 53-percent difference is that white households ate out more often and earned higher incomes, $29,981 versus $20,599.

Larger Households Able To Economize on Food Purchases

Per capita food spending declines as household size increases,

Need To Know More About Food Expenditures?

...If so, get the latest reports from USDA's Economic Research Service:

- ***Changes in Food Consumption and Expenditures in American Households During the 1980's***
  This 104-page bulletin reports the quantity and dollar value of food consumption in American households for 1977-78 and 1987-88 by selected socioeconomic and demographic characteristics. Order stock #SB-849 for $11.

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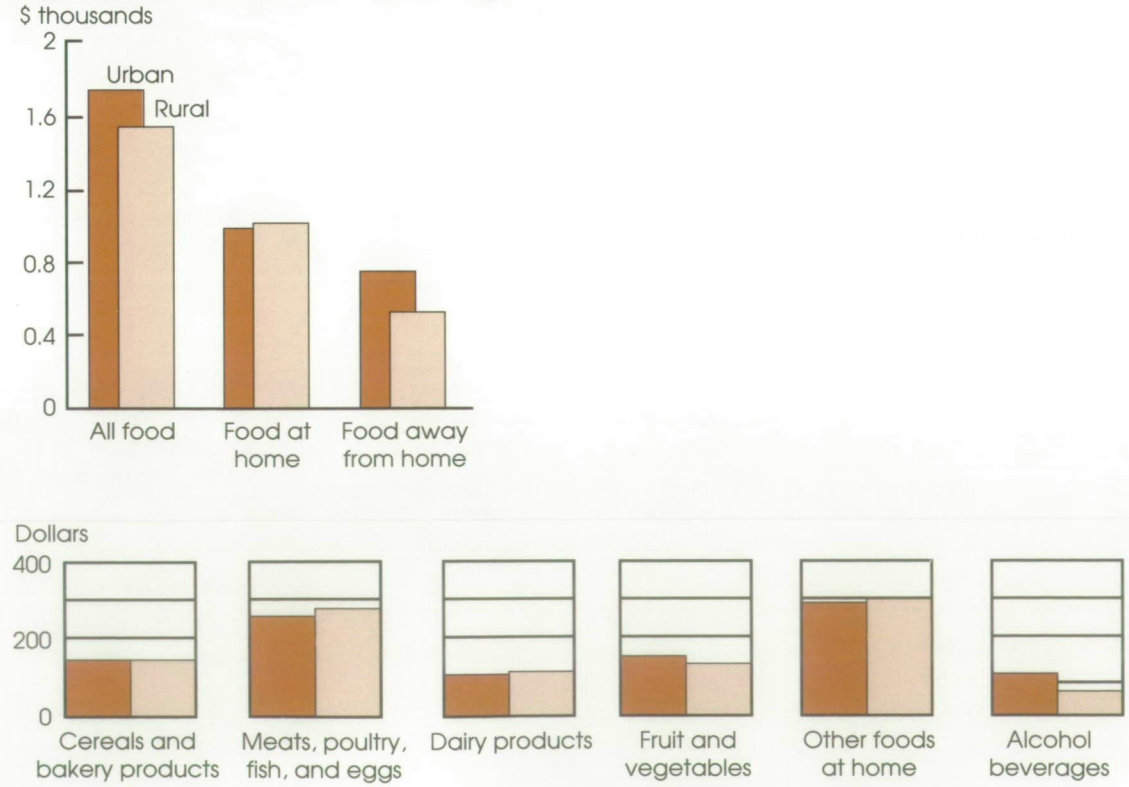
Figure 1
As Household Size Increases, Per Captia Food Expenditures Decline

Figure 2
Rural Households Have Lower Food Expenditures as They Spend Less Eating Out



Percent Of Income Spent On Food Holds Steady

Total U.S. disposable personal income rose 4.1 percent in 1991, while food spending was up 3.7 percent. The share of disposable income Americans spent on food remained at 11.7 percent.

Consumers shifted from eating out to eating at home as they tightened their financial belts. Spending on food for at-home consumption increased 4.1 percent, while prices at grocery stores rose 2.9 percent. At the same time, away-from-home food expenditures rose 2.8 percent and prices went up 3.4 percent.

The 11.7 percent of disposable personal income spent for food in 1990 differs from the 15 percent of household income reported in this article primarily because the measures of income differ. Personal income includes the incomes of the entire U.S. population, while household income excludes the incomes of persons living in military barracks, prisons, and institutions. Also, personal income counts more items, such as employers' payments for Social Security, health insurance, and retirement, which are not included in household income figures.

For more information, contact Alden C. Manchester at (202) 219-0880.

Food Expenditures by Families and Individuals Rose but Continued To Decline as a Share of Income

Year	Disposable personal income	Expenditures for food			Share of income spent for food		
		At home[1]	Away from home[2]	Total[3]	At home[1]	Away from home[2]	Total[3]
	Billion dollars				*Percent*		
1960	360.5	50.6	12.6	63.1	14.0	3.5	17.5
1965	491.0	57.4	16.9	74.3	11.7	3.5	15.1
1970	722.0	74.2	26.4	100.6	10.3	3.7	13.9
1975	1,150.9	115.1	45.9	161.0	10.0	4.0	14.0
1980	1,952.9	178.5	85.4	263.9	9.1	4.4	13.5
1985	2,943.0	228.4	129.5	357.9	7.8	4.4	12.2
1988	3,548.2	256.7	158.1	414.7	7.2	4.5	11.7
1989	3,787.0	274.0	165.6	440.5	7.3	4.4	11.6
1990	4,042.9	297.3	177.4	474.7	7.4	4.4	11.7
1991	4,209.6	309.5	182.4	492.2	7.4	4.3	11.7

[1]Food purchases from grocery stores and other retail outlets. Includes purchases with food stamps and food produced and consumed on farms because the value of these foods is included in personal income. Excludes Government-donated foods. [2]Purchases of meals and snacks by families and individuals. Includes food furnished to employees because it is included in personal income. Excludes food paid for by Government and business, such as donated foods to schools, meals in prisons and other institutions, and expense-account meals. [3]Totals may not add due to rounding.

but larger households have a much larger total food bill (fig. 1). One-person households spent $2,302 in 1990, while five-person households spent $5,520.

Nevertheless, household food spending did not increase proportionately with household size, because larger households take advantage of economies of size (such as buying in bulk), have more children (who eat smaller portions), and eat fewer meals away from home.

Urbanites Spend More

Urban households still spend more per capita on food than rural households, $1,728 versus $1,536 in 1990 (fig. 2). The higher spending is likely due to higher incomes, greater spending on food away from home, and lower levels of home food production. ■

Marketing Bill Is the Largest Chunk of Food Expenditures

Howard Elitzak
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While consumer food expenditures increased only 2.7 percent in 1991, food marketing costs—as measured by the marketing bill—rose 4.5 percent to $361 billion.

Over time, the marketing bill has been the driving force in food expenditure increases (fig. 1). Between 1981 and 1991, the marketing bill grew faster than the farm value, 75 percent compared to 24 percent, and now accounts for 78 percent of the cost of food.

The marketing bill includes consumer foodservice expenditures which are not included in USDA's market basket (see "1991 Rise in Retail Food Prices Was the Smallest Since 1985" elsewhere in this issue). Because the cost of preparing and serving food is a major part of the cost of food eaten away from home, the farm value derived from the marketing bill statistics is smaller than the corresponding market basket figure of 27 cents.

The author is an agricultural economist in the Commodity Economics Division, Economic Research Service, USDA.

Marketing Bill Measures Costs Beyond the Farm

The marketing bill includes costs associated with processing, wholesaling, distributing, and retailing of foods produced by U.S. farmers and eaten by U.S. consumers. It is the difference between the value farmers receive for the food and the amount consumers spend on food for consumption at and away from home. The marketing bill excludes expenditures for imported foods and seafoods.

There are several major causes underlying the growth in marketing costs. These include higher prices of marketing inputs, larger volume of food purchased by consumers, a higher percentage of food sold through restaurants and fast food outlets, and more value-added processing and packaging.

Figure 1
Rising Marketing Costs Take a Bigger Bite of Food Expenditures

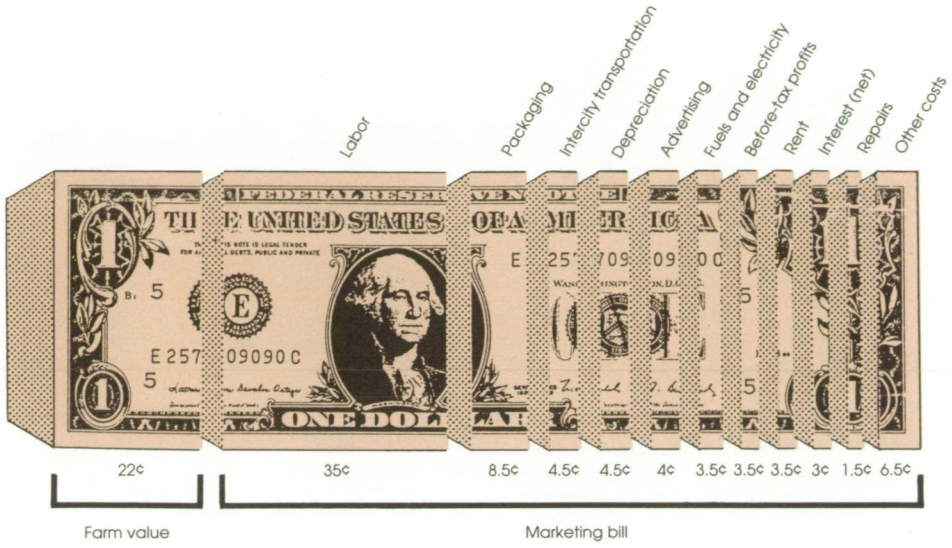
Labor Costs Largely Responsible for 1991 Marketing Bill Increase

Labor costs overshadow all other costs in the marketing bill (fig. 2). Rising labor costs have accounted for almost half the increase over the last decade and were largely responsible for the increase in 1991. Although labor costs grew almost 6 percent to $163 billion (table 1), this was below 1990's increase, as employment and wages rose at a slower pace. However, this increase was roughly equal to the average annual rise of the past 5 years.

Employment in the food industry grew only 0.13 percent last year, compared with an annual average 2.5-percent rise over the last 10 years. This small increase resulted from sluggish retail sales growth during the recession. Employment rose in food processing and distribution, but increases were much smaller than in recent years, particularly in eating places.

Average weekly earnings of workers in food processing rose 2.3 percent in 1991, slightly below 1990's increase. Also increasing at a slower pace were weekly earnings in food retailing, up 2 percent. However, weekly earnings in wholesaling rose faster in 1991, up 3.6 percent.

Figure 2
Over Three-quarters of Every Dollar Spent on Food Goes To Pay Marketing Costs[1]



[1]Includes food eaten at home and away from home. Other costs include property taxes and insurance, accounting and professional services, promotion, bad debts, and miscellaneous items.

Rising Health Care Costs a Growing Concern

The biggest issue affecting the food industry labor picture is health benefits. They account for 20 to 25 percent of the industry's labor costs and have been the top issue on the bargaining table since 1990.

Costs of providing health benefits are escalating rapidly. The Consumer Price Index (CPI) for medical services rose almost 9 percent in 1991, and has risen an average of 8 percent per year over the last decade. Health benefits may take anywhere from 10 to 30 percent of the cash available in union contracts.

Employers are using a number of measures to contain health-care costs. These include requiring second opinions prior to surgery, approval from insurance carriers prior to surgery, and participation in health maintenance organizations (HMO's). Employers also shifted some of the costs directly to employees by means of deductibles and copayments. Some plans reduced benefits, while others required employees to pay a larger share of the premium.

Despite these efforts at containment, however, high health care costs are expected to impact the food industry for some time to come.

Labor Contracts

Labor contracts have an important impact on the overall food industry wage structure, even though union memberships may account for as little as one-third of total food industry employment. These contracts are generally in effect for 3 years and can be used to gauge short-term labor cost trends.

There are two types of labor contracts: front-loaded and back-loaded. Front-loaded contracts provide the largest wage adjustment in the first year of the contract. These settlements compound the amount of the percentage increase in the later years of the contract. By contrast, back-loaded contracts provide lower wage increases in the first year, compared with subsequent years. Back-loaded contracts dampen wages by basing increases in the later years of a contract on a lower initial wage. These contracts were preva-

Table 1
Higher Labor Costs Boost 1991 Marketing Costs

Component	1975	1980	1985	1989	1990	1991
			Billion dollars			
Labor[1]	48.3	81.5	115.6	145.1	154.0	163.0
Packaging materials	13.3	21.0	26.9	35.2	36.5	38.1
Rail and truck transportation[2]	8.4	13.0	16.5	18.6	19.8	20.4
Fuels and electricity	4.6	9.0	13.1	14.8	15.2	16.3
Pre-tax corporate profits	7.1	9.9	10.4	12.2	14.2	15.1
Other[3]	29.7	48.3	76.5	89.7	103.9	107.7
Total marketing bill	111.4	182.7	259.0	315.6	343.6	360.6

[1]Includes employees' wages or salaries and health and welfare benefits. [2]Excludes local hauling charges. [3]Includes depreciation, rent, advertising and promotion, interest, taxes, licenses, insurance, and professional services.

lent in the mid-1980's, as food industry firms sought to control costs.

In 1991, front-loaded contracts dominated bargaining agreements covering food manufacturing and retailing—just as they had in 1990. The Bureau of Labor Statistics reports that the average adjustment for food manufacturing workers was 4.1 percent in the first year and 3.2 percent annually over the life of the contract. For foodstore workers, wage increases averaged 3.7 percent during the first year and 3.4 percent annually over the life of the contract.

Two-tiered wage contracts—in which workers hired after a specified date receive lower wages or fewer benefits—continue to be phased out. Both labor and management have noted the reduced productivity from employees on lower wage tiers. The phasing out of this wage structure, developed during the mid-1980's, is also creating upward pressure on labor costs as the wages of junior employees are brought into line with those of their more senior colleagues.

Lump-sum payments granted in lieu of wage increases were a popular method of containing labor costs in the mid-1980's. These payments restrain labor cost increases by holding down the wage base used to calculate benefits and pensions. Only 20 percent of the workers covered by 1991 contract negotiations received lump-sum payments.

The minimum wage increased from $3.80 an hour to $4.25 an hour on April 1, 1991. Its biggest impact has been on the nonunionized segment of the industry—especially eating places. This segment of the food industry makes up 53 percent of total sector employment, and has most of the minimum-wage workers.

Recession Minimizes Packaging Cost Increases

Packaging is the second-largest component of the marketing bill, accounting for 8.5 percent of the food dollar. Costs of these materials rose 4.4 percent last year, the second smallest increase in 10 years (the 3.7-percent rise in 1990 was the smallest).

Sales of microwaveable products, packaged foods, and other convenience foods requiring specialized packaging rose slowly due to the recession, and caused weak growth in aggregate sales of packaging materials.

Helping to hold down packaging expenses was a 1-percent drop in the price of paper boxes. Prices for paper products are the largest component (40 percent) of packaging costs. The price of linerboard, the major paper box input, declined as manufacturers discounted prices to reduce excessive inventories resulting from sluggish sales.

Plastic prices were also lower. Plastic containers and wrapping materials make up nearly 20 percent of food packaging costs.

As a petroleum derivative, plastic became costlier to produce when higher crude oil prices stemming from the Persian Gulf War drove up plastic prices during the first three quarters of 1991. In the fourth quarter, plastic prices dropped dramatically due to declining crude oil prices. The net result was a 0.5-percent decline in plastic prices for the year.

Metal cans and glass containers account for the remaining 20 percent, and were largely responsible for higher food packaging costs. Metal can prices were up 3 percent and glass containers rose by 4 percent.

Energy Bill Higher

Energy costs, which represent 3.5 percent of total retail food expenditures, rose 7 percent to about $16 billion in 1991. The energy bill included only the costs of electricity, natural gas, and other fuels used in food processing, wholesaling, retailing, and foodservice establishments. Transportation fuel

costs, except for those incurred for food wholesaling, were excluded.

Higher energy costs resulted largely from expansion in the food industry. A 6.4-percent rise in the price of electricity used by food marketing firms also contributed to higher energy costs. However, this increase was somewhat mitigated by a 0.6-percent drop in the price of natural gas due to abundant supplies resulting from a mild winter.

Food retailing and foodservice account for about two-thirds of energy costs incurred by the food industry. About 85 percent of this cost comes from the use of electricity. The food processing sector is responsible for another 20 percent of the total energy bill. Electricity accounts for 55 percent of food manufacturing energy costs, with natural gas making up the remaining 45 percent. The Persian Gulf crisis had only a limited effect on the cost of processing and retailing food because higher oil prices do not significantly affect natural gas and electricity costs.

While energy's percentage increase was greater than the remaining components, its relatively small size mitigates its impact on aggregate food marketing costs.

Transportation Costs Rose Little

Intercity truck and rail transportation costs for farm foods amounted to $20.4 billion in 1991, or about 4.5 percent of retail food expenditures. Railroad freight rates for hauling food products rose about 4 percent in 1991, while operating costs of trucks hauling produce fell 3.1 percent in 1991. The cost of labor and fuel—which account for approximately 45 percent of trucking costs—declined 7.5 percent. Most other expenses fell slightly or remained constant.

Although costs were lower, truck rates for shipping fresh produce remained nearly constant. Competition among different groups of truckers—including individuals who own and operate trucks; trucking companies; and companies that transport their own products, but haul produce on return trips—have held down truck rates. However, higher demand for trucking services—as indicated by a 1-percent increase in shipments of fresh fruit and vegetables—offset lower costs. Therefore, increased marketings were mostly responsible for the small rise in the cost of transporting food.

Profits Growth Slowed

Before-tax profits accounted for over $15 billion, or 3.5 percent of the marketing bill in 1991. This amounts to a 6-percent increase in profits, compared with the 16-percent jump in 1990.

Despite slow sales growth, the industry was able to maintain its profit margins. Helping to keep up margins was the industry's ability to recover somewhat from high debt and interest payments from earlier leveraged buyouts, which squeezed margins during the late 1980's.

Aggregate profit margins were larger for food manufacturers due to modest product price increases, lower farm commodity costs, and modest increases in production and marketing costs. Also, streamlined food processing operations increased worker productivity, allowing manufacturers to hold down labor costs.

Food retailers continued to achieve greater efficiencies through the use of technology for inventory management and merchandising. Retailers control labor costs, their largest operating expense, by using checkout scanners and computer programs that assist in labor scheduling.

Finally, retailers have increased profits by building bigger stores to give more space to high-margin products (such as perishables) and service departments (such as bakeries and instore delicatessens). ■

Leaner Employment in Agricultural Processing and Marketing

Alex Majchrowicz and Jacqueline Salsgiver
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Employment in industries that process and market agricultural products declined 9 percent between 1975 and 1988 (the 13 years for which data are available). Total employment generated by agricultural processing and marketing firms in 1988 was over 3.2 million, or about 2.5 percent of all U.S. employment.

Industries involved range from grain elevators to bakeries, poultry processors, soft drink bottlers, and apparel and textile manufacturers. The largest sector is apparel and textiles, which employs over two-fifths of the workers in food and fiber processing and marketing. It was also the sector which lost the largest number of jobs.

Strong Links to the South's Economy

Agricultural processing and marketing is very important to State economies in the South. These industries generated over 5 percent of total State employment in North Carolina, South Carolina, Georgia, Tennessee, Alabama, Mississippi, and Arkansas (fig. 1).

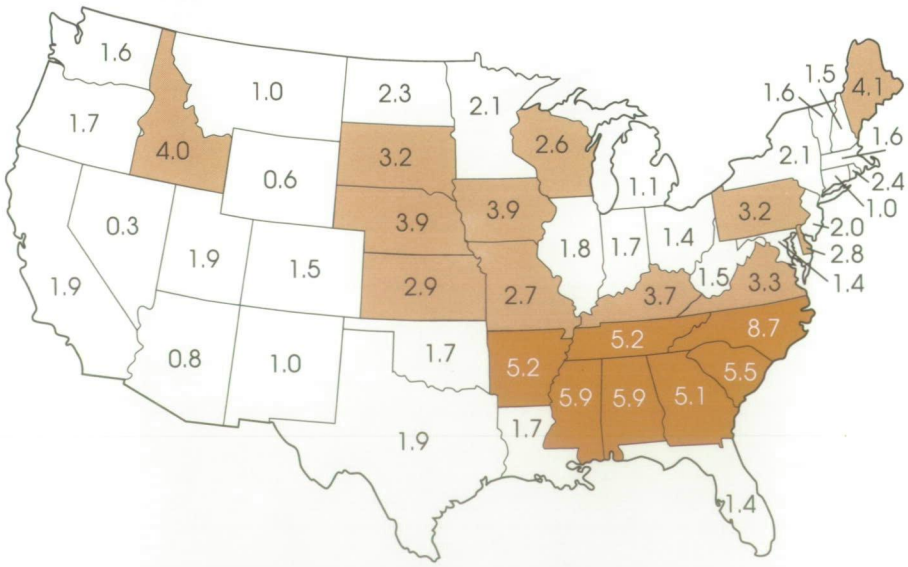
The apparel and textile industries are responsible for much of the agricultural processing and marketing employment in the South. For example, in 1988, they provided 6.6 percent of North Carolina's jobs and accounted for between 3.1 and 4.6 percent of total employment in South Carolina, Alabama, Mississippi, Georgia, and Tennessee. However, in Arkansas, meat processing, especially poultry, provided 2.3 percent of all employment.

The authors are agricultural economists in the Agriculture and Rural Economy Division, Economic Research Service, USDA.

Employment Lower Overall, But Some Growth Posted

Employment in agricultural processing and marketing indus-

Figure 1
Agricultural Processing and Marketing Has Strongest Ties to State Economies in the South



tries declined by nearly 330,000 jobs from 1975 to 1988 (table 1). Leather, tobacco, fats and oils, and beverage manufacturers lost the largest share.

Many of the declines occurred through mergers to improve efficiency and profitability. Other firms substituted capital for labor by investing more in automation. Additionally, heightened health concerns decreased domestic consumption of some goods, such as tobacco and alcoholic beverages, which caused employment in these industries to decline.

Not all processing and marketing industries reduced employment. Employment remained stable in bakery products manufacturing. Miscellaneous food preparations (which include items such as canned seafood, macaroni, and snack chips) and meat products manufacturing gained jobs.

Changing consumer tastes, health concerns, and increasing demand for convenience aided employment growth in these industries. For example, poultry processing industries benefited from consumer concerns about fat and cholesterol and their desire for prepared items that are easy to cook.

Some industries had uneven employment growth during 1975-88. The canned, frozen, and preserved fruit and vegetable processing industry, for example, added jobs in the late 1970's. Jobs then declined in the early 1980's, as the industry automated and as consumer demand for canned foods stopped growing. Employment rebounded in 1984-85, as demand increased for canned ethnic specialty foods, sauces and dressings, and dried or dehydrated fruit and vegetables. Employment again began declining in 1987 due to job losses in firms producing frozen specialty goods, such as frozen dinners and pizza.

Rural Areas Gain Some Jobs

National employment trends in processing and marketing industries conceal differences between rural and urban areas. Despite the overall employment decline, such jobs increased in rural areas by 3.3 percent (almost 39,000 jobs) from 1975 to 1988. In contrast, processing and marketing employment declined 15.5 percent (some 368,000 jobs) in urban areas. Despite these trends, urban areas accounted for 2 million processing and marketing jobs in 1988, while rural areas had 1.2 million.

Jobs in Farming and Its Related Industries in 1989

Farm and farm-related industries provided over 23 million jobs in 1989.

While two-thirds of those jobs were only peripherally related to farming, jobs in farming and its closely related industries did have a direct effect on many local economies—providing 25 percent or more of total employment in 865 U.S. counties.

Get more information from *U.S. Farm and Farm-related Employment in 1989: Where Are Jobs in Farming and Its Related Industries Most Important?* stock #AIB-654. Order your copy by calling toll-free 1-800-999-6779 (outside the United States and Canada, please dial 703- 834-0125).

Table 1
Few Gainers When It Comes to Employment in Processing and Marketing

Industry	Employment 1975	Employment 1988	Change[1] Number	Change[1] Share
	—1,000 jobs—		—Percent—	
Gainers				
Miscellaneous food preparation and kindred products	135	166	31	23
Meat products	305	358	53	17
Bakery products	221	221	0	0
Losers				
Canned, frozen, and preserved fruit and vegetables	194	187	-7	-3
Sugar and confectionery products	97	93	-4	-4
Warehousing	31	29	-2	-6
Grain mill products	115	106	-8	-7
Farm-related raw materials (wholesale trade)	152	138	-14	-9
Apparel and textiles	1,579	1,384	-195	-12
Dairy products	168	147	-21	-12
Beverages	199	165	-34	-17
Fats and oils products	44	31	-13	-29
Tobacco products	67	47	-19	-29
Leather products	230	133	-97	-42
Total	3,536	3,206	-330	-9

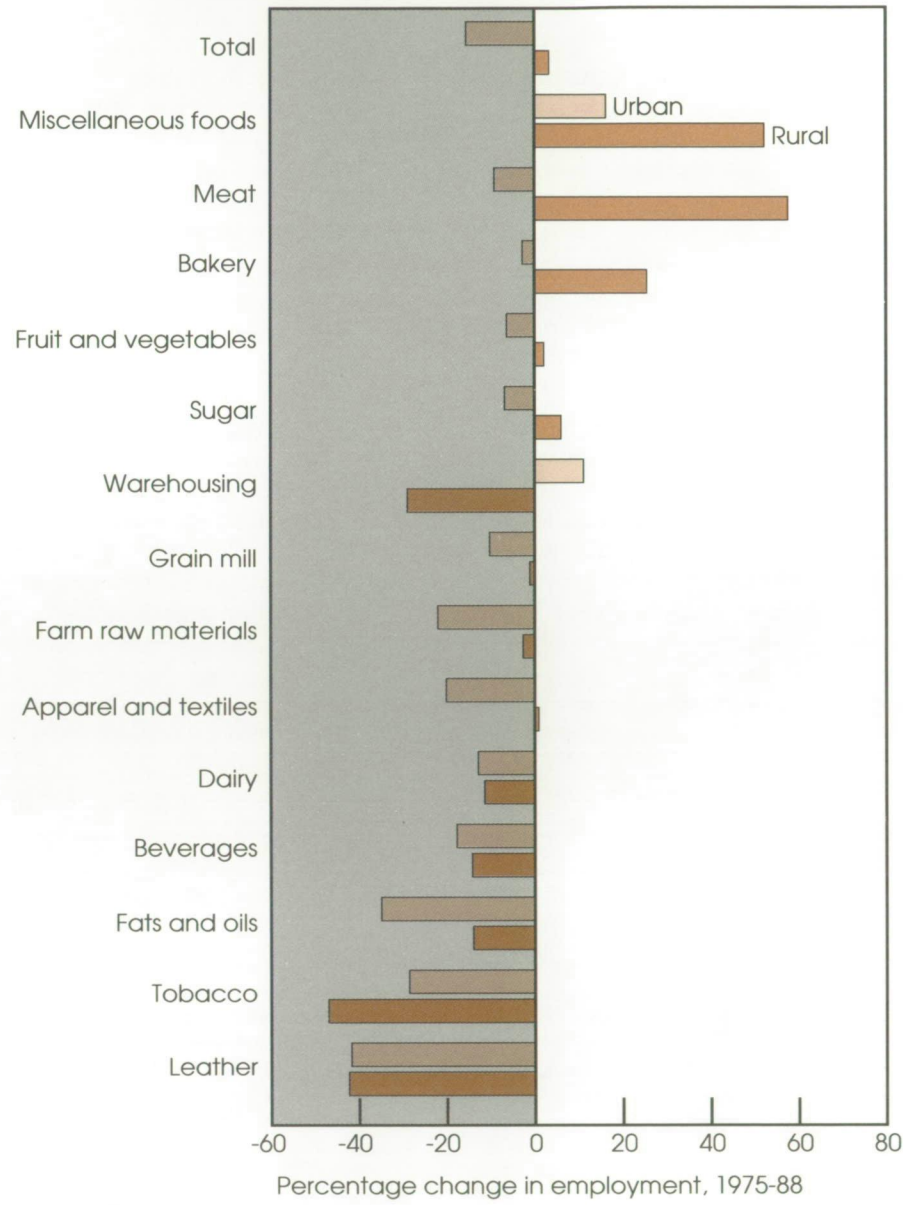
[1]Differences may not total due to rounding. Percentage change based on actual, not rounded, data.

The largest contrast between rural and urban agricultural processing and marketing employment was in meat processing, which increased almost 58 percent (69,600 jobs) in rural areas but declined over 9 percent (16,900 jobs) in urban areas. Similar patterns of growth in rural areas but decline in urban areas occurred in manufacturing of bakery, fruit and vegetable, sugar and confectionery, and apparel and textile products (fig. 2).

The growth in rural areas and loss in urban areas suggests competition for jobs. In meat processing industries during the 1980's, for example, the closing of slaughter plants in urban areas of Iowa, Kansas, Nebraska, Wisconsin, and Minnesota caused the loss of several thousand jobs. But during the same period, new slaughter plants were established in several rural areas in southwestern Kansas and central Nebraska.

Contributing to the shift of slaughter plants was the expansion of the fed-cattle industry in the Central Plains. Also, slaughter plants in the urban areas of the Midwest closed in favor of newer plants in rural areas closer to the fed cattle.

Figure 2
Agricultural Processing and Marketing Fared Better in Rural Than in Urban Areas



Limited Prospects for Employment Growth

Future employment growth, particularly for food processors, may occur in some areas but at the expense of other areas.

As suggested by the shift of meat processing jobs, competition exists for these jobs as firms attempt to locate in the most profitable locations. Additionally, job expansion will probably be limited to areas with strong links among related industries. For example, new jobs in industries processing prepared chicken items are increasingly tied to the expanding poultry industry. Areas having strong links between poultry production and processing will benefit the most from increased consumer buying of poultry products. ■

Record Number of New Products in 1991

Anthony E. Gallo
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Last year, manufacturers introduced more products than ever before in our Nation's retail food stores. Of the over 16,000 products introduced, 77 percent were food (table 1).

The majority of the new products, 59 percent, headed to supermarkets. Gourmet food stores received 30 percent of the new products, while the remainder went to health-food stores.

Eighty percent of new products were shelf stable and the rest were evenly divided between refrigerated and frozen.

The 1991 total reflected a 22-percent increase over the 13,244 products introduced in 1990, and more than doubled the introductions in 1985. This growth occurred despite 1990 and 1991 being recession years, with food sales rising less than food prices.

Between 1982 and 1991, manufacturers brought to market over 90,000 new food products. However, breakthrough concepts are rare. Most new products—up to 90 percent—are extensions of existing lines, with the addition of new flavors, sizes, packages, or cooking alternatives.

The author is an agricultural economist in the Commodity Economics Division, Economic Research Service, USDA.

Condiments Lead the Way

Nearly 2,800 condiments were introduced in 1991, amounting to over a fifth of new food items (table 1). Many new sauces were introduced, as ethnic style foods gained in popularity. For example, Americans now use more salsa than catsup.

Candy, gum, and snacks—usually the leading category—followed, with 15 percent of the products introduced. Bakery products, beverages (mostly soft drinks), and dairy products (mostly cheese and

Table 1
Number of New Items Offered in Retail Food Stores Doubled in the Past 6 Years

Selected category	1985	1990	1991
	Number of introductions		
Food:			
Baby food	14	31	95
Bakery foods	553	1,239	1,631
Baking ingredients	142	307	335
Beverages	625	1,143	1,367
Breakfast cereals	56	123	108
Condiments	904	1,486	2,787
Candy, gum, and snacks	1,146	2,028	1,885
Dairy	671	1,327	1,111
Desserts	62	49	124
Entrees	409	753	808
Fruit and vegetables	195	325	356
Pet food	103	130	202
Processed meat	383	663	798
Side dishes	187	538	530
Soups	167	159	265
Total	5,617	10,301	12,398
Nonfood:			
Health and beauty aids	1,446	2,379	3,064
Household supplies	184	317	423
Paper products	42	174	165
Tobacco products	27	31	19
Pet products	14	42	74
Total	1,713	2,943	3,745
Total	7,330	13,244	16,143

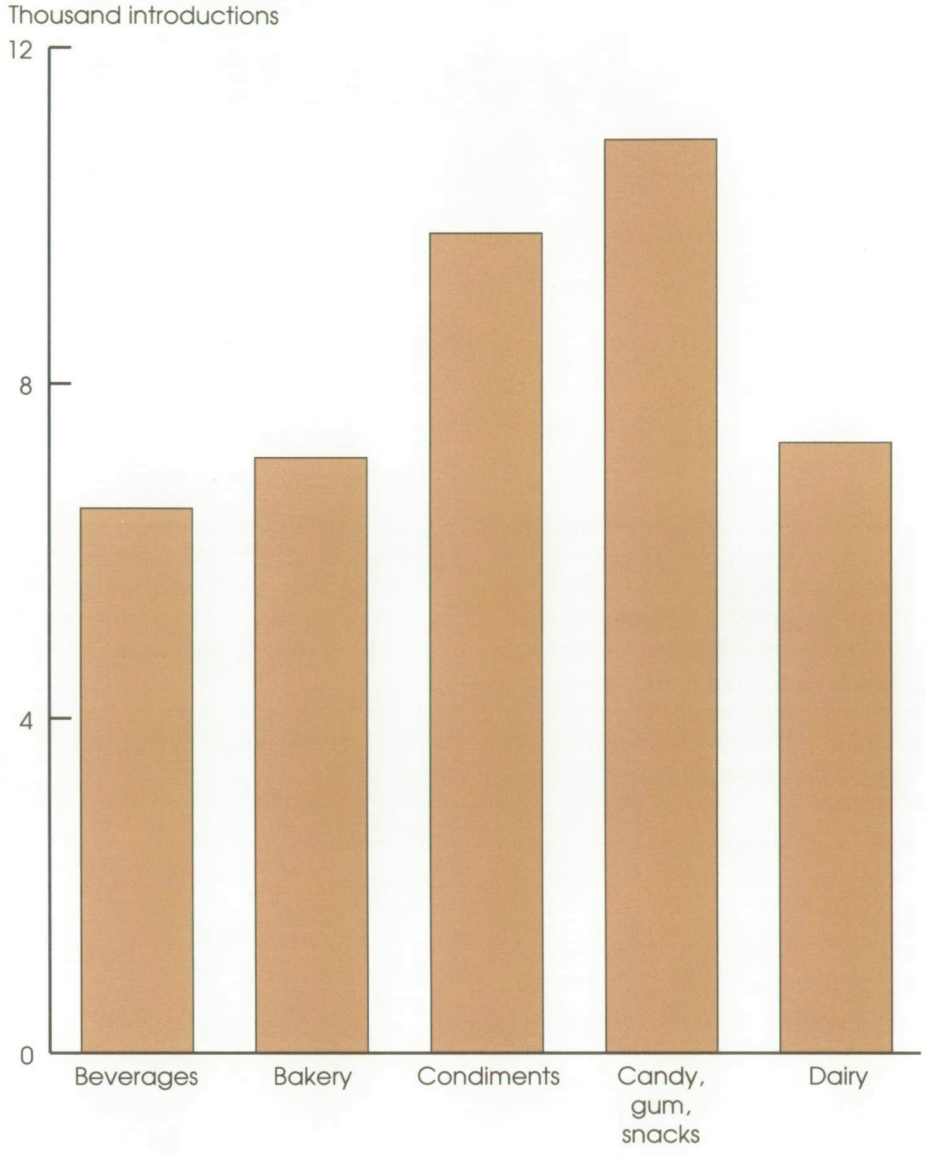
Source: *New Product News*, various issues.

Profile on the Food Marketing System in 1991-92

- Sales in the food marketing system slowed for the third consecutive year in 1992.
- But, profitability from operations remained the same and after-tax profits increased because of lower interest rates and a weak dollar.
- The industry was characterized by declining debt levels, modestly higher wages, and a slight pickup in merger activity.

For more details, get your copy of *The Food Marketing System in 1991-92* (stock #AIB-659) for $5 by calling toll-free 1-800-999-6779 (outside the United States and Canada, please dial 703-834-0125).

Figure 1
Candy and Snacks Were the Most Popular Product Introduction for Food Manufacturers in 1985-91



ice cream) were the other leading categories with new products.

Together, these five categories accounted for nearly 70 percent of all new products in 1991. During the past 6 years, manufacturers introduced over 41,000 products in these categories, ranging from nearly 11,000 candy products to 6,500 beverages (fig. 1).

Food Processors Respond to Health Concerns

In recent years, food processors have introduced food products in response to health concerns. In 1991, nearly 5,800 new food products advertised health claims, more than three times the number in 1988 (table 2). Over three-fifths of all new foods with health claims were foods labeled as reduced calorie, fat, cholesterol, or salt.

Also rapidly growing was the number of new "organic" products—foods produced without any synthetic fertilizers or chemicals. In 1991, over 6 percent of the new foods making health claims were labeled organic. Besides fruit and vegetables, consumers can buy organic-labeled breads, cereals, crackers, and cookies.

New Products Are a Form of Competition

New products, along with advertising, are an important means of nonprice competition. With food being a stable but slow-growth industry, sales growth for food manufacturers must come through gains in market share. To get more con-

Table 2
Many New Food Products Claim They're More Healthful

Product claim	1988	1989	1990	1991
	Number			
Reduced or low calorie	475	962	1,165	1,214
Reduced or low fat	275	626	1,024	1,198
Low or no cholesterol	126	390	694	711
Reduced or low salt	202	378	517	572
All natural	215	274	754	561
No additives or preservatives	153	186	371	526
Reduced or low sugar	52	188	331	458
Organic	98	140	324	370
Added or high fiber	56	73	84	146
Added or high calcium	4	27	20	15

Note: Data contain some double counting because new products may carry more than one health claim.

Source: *Prepared Foods*, various issues.

sumers to buy their foods, firms develop new products that are different from those of their competitors. And, new firms must introduce new products to gain market entry. Therefore, the rate of product introductions provides a measure of competition among firms and indicates the result of research and development activities.

Failure Rate High

The proliferation of new products, even line extensions, poses a problem for shelf space. Manufacturers introduced over 16,000 products in 1991, but most supermarkets stock from 25,000 to 35,000 items. If the average size of new stores continues to decline as it has in recent years, future supermarkets (excluding hypermarkets and super stores) may handle fewer products.

But, most new products fail to push aside established products and gain permanent shelf space. While there are no precise figures, some trade analysts estimate that between 80 and 95 percent of all new products fail.

However, manufacturers do not intend for every new product to be sold by all retail food stores. Instead, they develop products to reach specific customers in local and regional markets. Products developed for national distribution are less than half of all introductions. Also, other new products are meant to have a limited life cycle, such as Halloween candies.

Product Introductions Are Costly

Manufacturers, wholesalers, and retailers bear the costs and risks associated with each new product, which can reach over $100 million per item. If the new product is successful, they all benefit. If unsuccessful, they all lose.

Food manufacturers pick up the largest portion of this cost, which includes research and development, test marketing, advertising and promotion, inventory, and various other production, marketing, and finance expenses.

Food retailers risk handling and warehousing costs and lost sales when removing an existing product for a new product. With profits based on sales per square foot of shelf space, food retailers cannot afford to stock a product that does not sell. To minimize the risks, retailers sometimes charge manufacturers "slotting fees," or rent, for shelf space. Some retailers also charge "failure fees" to cover the costs of removing the failed products from inventory and shipping them back to the manufacturers.

How to, and who should, pay the costs associated with the vast number of failed new products is generating much debate within the food marketing system. But no matter how the issue is resolved, manufacturers will continue to introduce thousands of new products. And, they will continue to be challenged to develop new products that successfully compete to meet consumers' needs. ■

Most new products are extensions of existing lines, with the addition of new flavors, styles, packages, or cooking alternatives.

Domestic Food Assistance Reached Record Levels

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Federal food assistance programs, which are designed to improve the nutritional status of low-income people and other target groups such as the elderly, are growing. Types of assistance include food stamps, vouchers, food packages, and cash.

The Federal Government spent a record $28.9 billion in fiscal 1991 for domestic food and nutrition programs, 16 percent above the $25 billion spent in 1990.

The increase was almost entirely due to higher participation and costs of the Food Stamp Program—the largest Federal food assistance program. The increase in the program's costs accounted for over three-fourths of the total increase in all food assistance program costs. Other programs have increased, but not as fast. A weakened economy from the recession, in which unemployment rates grew from 5.3 percent in fiscal 1989 to 6.4 in fiscal 1991, factored into the increases.

Recipients received $27 billion in assistance in fiscal 1991 and $23 billion in 1990 (table 1). Preliminary figures indicate that participation and costs will continue rising until the economy turns around (table 1).

The author is an agricultural economist with the Commodity Economics Division, Economic Research Service, USDA.

Food Stamps

The Food Stamp Program is the largest of the Federal food assistance programs in terms of both the number of people served and the amount of money spent. It accounted for over two-thirds of the food assistance budget in fiscal 1991.

The program helps low-income households purchase the foods that they need for better nutrition. Eligi-

Table 1
USDA Food Assistance Benefits Rose 16.8 Percent in Fiscal 1991[1]

Programs	1990	1991
	Million dollars	
Family food:		
Food stamps	14,205	17,348
Puerto Rico[2]	940	967
Food distribution:		
Indian reservations	51	51
Schools[3]	620	687
Other[4]	182	176
TEFAP[5]	209	212
Cash in lieu of commodities[6]	156	155
Child nutrition:[7]		
School lunch	3,211	3,489
School breakfast	589	677
Child care and summer food	865	995
Special milk	19	20
WIC[8]	2,116	2,293
Total*	23,163	27,072

*Data may not add to annual total due to rounding. [1]Administrative costs are excluded unless noted. [2]Puerto Rico transferred from the Food Stamp Program to a substitute Nutrition Assistance Program on July 1, 1982. Data represent appropriated amounts. [3]National School Lunch, Child Care Food, Summer Food Service Programs, and schools receiving only commodities. [4]Commodity Supplemental Food Program and Elderly Feeding Pilot Projects, excluding bonus commodities and donations to charitable institutions. [5]The Emergency Food Assistance Program. [6]Child nutrition programs and Nutrition Program for the Elderly. [7]Cash expenditures. [8]Special Supplemental Food Program for Women, Infants, and Children—includes administrative costs.

Source: USDA's Food and Nutrition Service, Program Information Division.

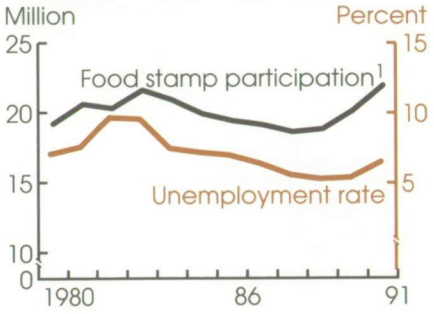
bility is determined by income guidelines, asset limitations, and certain work requirements. Participants are entitled to a monthly allotment of food stamps, the value of which is determined by income and household size. Monthly benefits are adjusted annually to reflect changes in the cost of the Thrifty Food Plan, the most economical of USDA's four food plans. Recipients may redeem the coupons for food at authorized retail outlets.

Participation in the program is responsive to the level of economic activity and usually increases during periods of rising unemployment (fig. 1).

The Food Stamp Program experienced the largest increase in participation since 1979 when the Elimination of the Purchase Requirement was instituted, which made food stamps available to participants without a mandatory cash payment each month. The cash payment that had been required was prorated according to the economic status of the household.

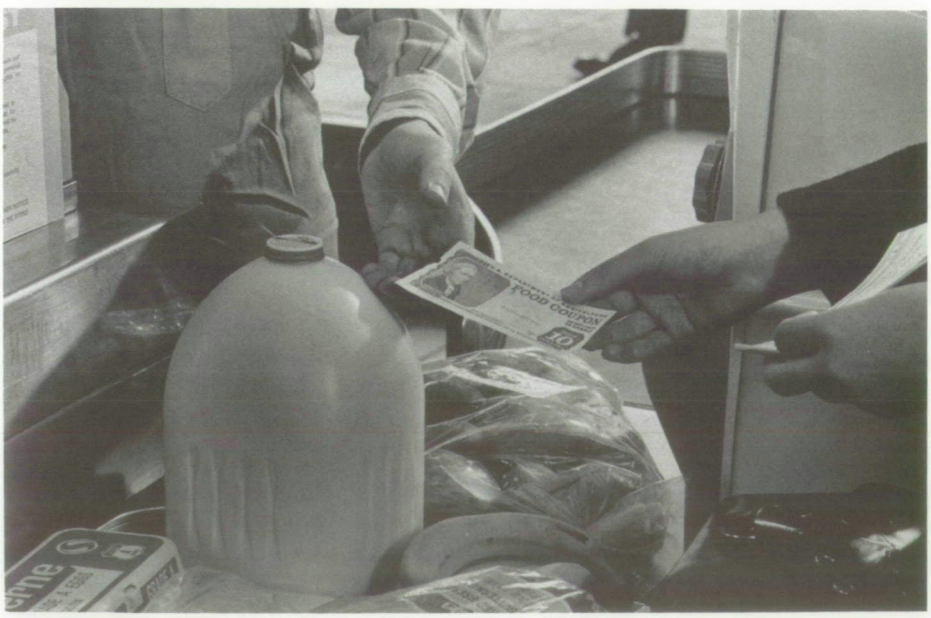
Almost 23 million people participated each month in fiscal year 1991, compared with 20 million in 1990 and almost 19 million in 1989.

Figure 1
Food Stamp Participation Increases Along with Unemployment



[1]Data excludes Puerto Rico's nutrition assistance program.

Food stamps increase the food buying power of participating households and indirectly supplement their incomes. USDA's Economic Research Service estimates that between 20 to 40 percent of the value of food stamp benefits each year are translated into increased spending on food. Applying those percentages to last year's benefits level of $17.3 billion, the program generated an additional $3.5 billion to $6.9 billion in annual food expenditures.



The Food Stamp Program experienced the largest increase in program participation and costs.

Child Nutrition Programs

USDA operates five programs in cooperation with State and local governments to provide meals and snacks to pre-school and school-age children. These include the National School Lunch, School Breakfast, Special Milk, Child and Adult Care Food, and Summer Food Service Programs. In fiscal 1991, Federal expenditures for these programs totaled $6 billion, an 11-percent increase over 1990.

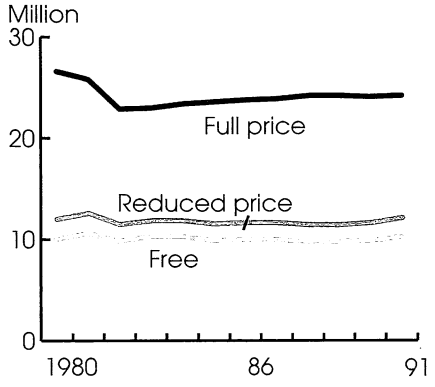
Participation in the National School Lunch Program increased by only 0.05 percent. But the numbers of free and reduced-price meals increased 4 percent and 12 percent, respectively (fig. 2). The program served 91,600 schools and 24.2 million participating children each school day in fiscal 1991.

Outlays for the School Breakfast Program increased 15 percent from $589 million in fiscal 1990 to $677 million in fiscal 1991. Participation increased almost 9 percent to 4.4 million students per school day. As with food stamps, participation in programs for free or reduced-priced school meals is sensitive to the status of the general economy. When the economy slows, more children are expected to be enrolled in subsidized meal programs at schools.

The Child and Adult Care Food Program served 1.1 billion meals during fiscal 1991, a 10-percent increase over the 966 million served in 1990. This program has been the fastest growing food assistance program over last decade, along with the continued growth in the number of children requiring day care services.

Cash and commodities are provided for food service in nonresidential child care centers and family day care homes. Chronically impaired adults and people over age 60 who are enrolled in adult day care centers are also served. The program provided daily meals to 1.53 million people in fiscal 1991,

Figure 2
Participation in the School Lunch Program Has Remained Steady



up slightly from the 1.52 million in 1990.

Supplemental Food Programs

The Special Supplemental Food Program for Women, Infants, and Children (WIC) was established in 1972 to improve the nutrition and health of pregnant, breastfeeding, and postpartum women, and their infants and children up to age 5, who are determined by health or medical professionals to be nutritionally at risk. Spending for this program rose 8 percent in fiscal 1991 to $2.3 billion after Congress allocated greater annual amounts to meet the needs of the program and its special clientele.

An average of 4.9 million persons participated in WIC each month in fiscal 1991, 8 percent higher than in fiscal 1990 (fig. 3). Average monthly benefits in 1991 were $30.34, nearly the same level as 1990.

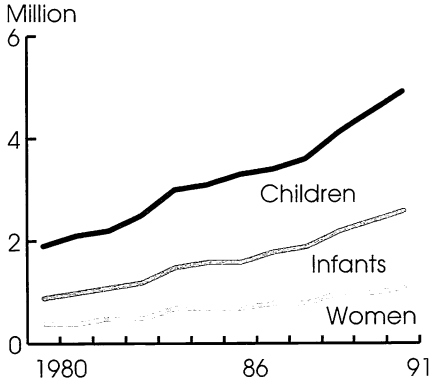
WIC recipients are provided monthly with food or food vouchers designed to supplement each person's diet with foods that are typically lacking in the target population, primarily pregnant women and infants under 1 year. The program also provides nutrition and health education and information concerning access to available community health and medical services.

The Commodity Supplemental Food Program, which began in 1969, initially served a target population similar to that of WIC. Participation has expanded in the past decade, particularly after 1982 when eligibility was extended to the elderly. Program costs in fiscal 1991 rose 8 percent to $89.7 million. The program now serves almost 300,000 people—over a third of whom are elderly.

Food Donation Programs

Food distributions are associated with provisions of surplus farm commodities obtained through farm price-support programs. USDA donates food through a number of programs,

Figure 3
Participation in the WIC Program Grew 8 Percent in Fiscal 1991



most notably The Emergency Food Assistance Program (TEFAP) and the Nutrition Program for the Elderly.

Recipients include American Indians on reservations, people living in the U.S. Trust Territories of the Pacific Islands, the elderly, and needy families. USDA also provides food to charitable institutions, summer camps, soup kitchens, and food banks.

Total costs of distributing food under these programs in fiscal 1991 amounted to $688 million, down 3 percent from fiscal 1990. The decline occurred primarily because, for the last several years, Government inventories have been too low to maintain the volumes available in the 1980's. □

United States Plays a Major Role in Food Aid Abroad

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The United States is the leader in world food aid, providing about 60 percent of total world cereal aid shipments (fig. 1). In comparison, the European Community provides about 20 percent, Canada 10 percent, Japan 4 percent, and Australia 3 percent. A number of other nations also provide food to needy countries.

The United States provides food aid abroad through two main channels: the Public Law (P.L.) 480 Program, otherwise known as Food for Peace, and Section 416(b) of the Agricultural Act of 1949, as amended. Closely related to these is the Food for Progress Program, which uses commodities to encourage agricultural policy reform. It is carried out using P.L. 480 Title I funds, Section 416(b) commodities, or Commodity Credit Corporation (CCC) funds.

Changes in Food Aid Legislation

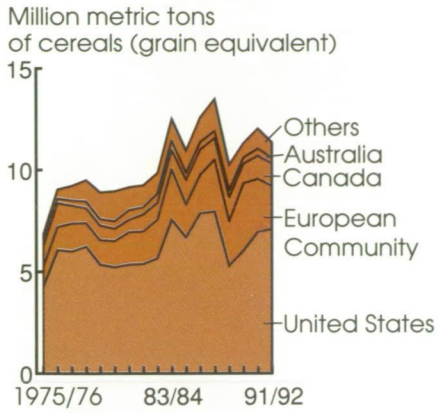
Through the Food for Peace Program, the United States provides commodities to help meet the needs of hungry individuals and to assist developing countries. Food is distributed through P.L. 480 under three programs, whose operations were modified by the Food, Agriculture, Conservation, and Trade Act of 1990.

Before the 1990 act, the U.S. Government provided balance-of-payments support to designated countries through long-term, low-interest credit for purchases of U.S. agricultural commodities under Title I of P.L. 480. Title I also authorized sales of U.S. farm products for local currency to generate economic growth through the recipient country's private sector. Under P.L. 480 Title II, the United States donated U.S. agricultural commodities to alleviate famine, provide disaster relief, combat malnutrition, and encourage economic and community development. These donations were distributed through recipient governments, private voluntary organizations, or the World Food Program. Such donations have helped about 60 million people annually. Under Title III, known as the Food for Development Program, the United States

The United States is the largest provider of world food aid.

The author is an agricultural economist in the Commodity Economics Division, Economic Research Service, USDA.

Figure 1
The United States Is a Leader Among Nations That Provide Food Aid



Note: Data are reported on a July-June year.

could forgive a Title I loan if the local currency generated from Title I commodity sales were used to finance specified development purposes.

Several changes in the P.L. 480 program were authorized by the 1990 act and became effective January 1, 1991. Title I continues to provide for sales of U.S. agricultural commodities through long-term concessional financing, but the repayment period was shortened from 40 to 30 years. Responsibility for implementation of the Title I program is assigned to USDA. Title II makes food commodities available for distribution overseas by private voluntary agencies, international organizations, and, in the case of emergencies, also recipient country governments. The new Title III program grants food assistance to least developed countries through agreements between the U.S. Government and recipient governments. Implementation of Titles II and III is assigned to the Agency for International Development.

The Section 416(b) program is separate from, though similar to, P.L. 480 Title II. The latter program is funded by Congressional appropriations, whereas the commodities provided under Section 416(b) are not. Section 416(b) involves the overseas donation of surplus commodities acquired by the CCC as part of its domestic U.S. price-support programs. Donations have historically included corn, dairy products, sorghum, soybeans, wheat, and flour. However, such shipments depend on the availability of surplus CCC stocks.

Food Aid Primarily Means Grains

The United States provides a variety of commodities for food aid programs, ranging from bulk, unprocessed commodities to foods easily used in relief camps.

In fiscal 1988-90, grains accounted for nearly 60 percent of the value of U.S. food aid shipments. Much of that was wheat, followed by corn, rice, and sorghum.

Slightly less than 20 percent of the value of U.S. food aid was vegetable oil, used in cooking and as ingredients in other foods.

Processed cereal products accounted for more than 15 percent of the total. These products, which can be more readily used or consumed, include flour, bulgur wheat (cracked wheat), and cereal mixtures containing such ingredients as corn meal, soy flour, and nonfat dry milk. About 1 percent of the fiscal 1988-90 total were dairy products— mostly butter and nonfat dry milk. The remainder was classified as "miscellaneous" commodities, which included cotton, dry beans, tallow, and other products.

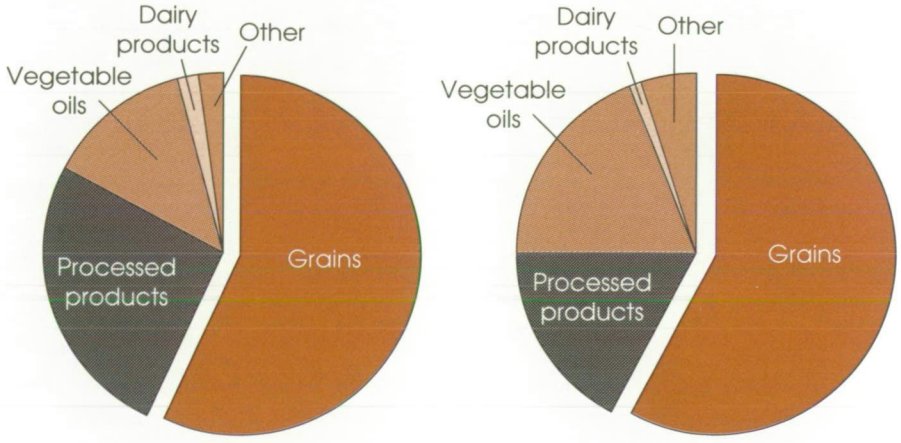
More Oils, Less Cereals

Between fiscal 1978-80 and 1988-90, the commodity composition of U.S. food aid changed (fig. 2). The share of processed cereal products and dairy products declined, while the share of vegetable oils and miscellaneous commodities increased. The share of bulk grains remained fairly steady.

Smaller shipments of processed cereal products, especially to Egypt and Sri Lanka, accounted for the decline in processed products. More soybean oil, mainly to Pakistan, accounted for the increase in vegetable oils. The share of dairy products decreased as prices rose and CCC stocks declined.

Shipments of dry beans, tallow, and a variety of other miscellaneous commodities increased. A major change among this group was that tobacco was not shipped after 1985.

Figure 2
Grains Continue To Dominate U.S. Food Aid



Values and Volumes Change

The value of food aid under P.L. 480 peaked at about $2.2 billion during the 1985 African famine. Since then, the value has remained relatively stable after declining from that peak to about $1.5 billion in fiscal 1988-90.

Volumes shipped have declined from about 8.5 million tons in fiscal 1985 to about 5.3 million tons in fiscal 1990. This compares with peak shipments close to 19 million tons in fiscal 1962.

The value of Section 416(b) food aid from surplus CCC stocks has reached to as much as $279 million (in fiscal years 1985 and 1988). Volumes have ranged from between 153,000 tons in fiscal 1984 to 2.1 million tons in fiscal 1988. In fiscal 1990, the volume declined to about 1.7 million tons.

Donations' Role Grows Compared to Credit

The channels through which the United States provides food aid have changed slightly between fiscal 1978-80 and 1988-90. In fiscal 1978-80, P.L. 480 Titles I and III shipments accounted for 67 percent of the total. In fiscal 1988-90, such shipments constituted 50 percent.

The decline in the share of these shipments was due mainly to the growth in Section 416(b) donations. Section 416(b) assistance started relatively small in fiscal 1983 and grew to account for more than 15 percent of total shipments during fiscal 1988-90.

The share of Title II donations remained basically unchanged at 34 percent in fiscal 1988-90.

More Aid to Latin America, Less to Asia

The distribution of U.S. food aid has shifted in the last 10 years largely as a result of changing needs around the world.

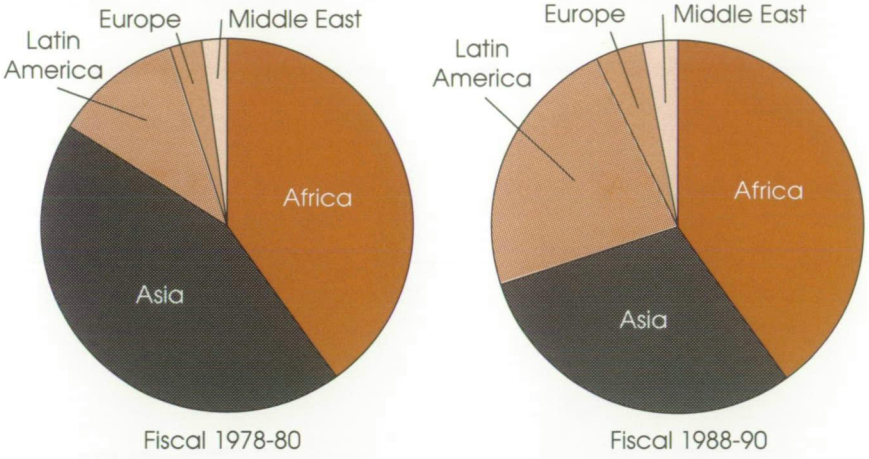
In fiscal 1988-90, Asian countries received 30 percent of the total, compared with almost 45 percent in fiscal 1978-80 (fig. 3). In particular, Indonesia and South Korea received less aid in fiscal 1988-90 than 10 years earlier.

Conversely, the share of U.S. food aid shipped to Latin America grew to 23 percent from about 10 percent in fiscal 1978-80. This was due to greater shipments directed in the late 1980's to El Salvador, Mexico, Guatemala, and Honduras, among others.

A larger share of food aid was also shipped to Europe and the Middle East in fiscal 1988-90 than in 1978-80. Higher shipments to Poland and Romania offset lower shipments to Portugal and Cyprus. Similarly, increases in aid to Jordan, Lebanon, and Yemen exceeded declines to Syria, Israel, the Gaza Strip, and Turkey.

African countries received about 40 percent of all U.S. food aid in the late 1980's. The share remained unchanged from fiscal 1978-80 largely because increased shipments to Ethiopia, Morocco, and Mozambique about offset decreases to Egypt.

Figure 3
Recipients of U.S. Food Aid Have Changed Since the Late 1970's



Food Aid Still Boosts Ag Exports

P.L. 480 food aid has accounted for 5 percent or less of the value of total U.S. agricultural exports since fiscal 1974. But, food aid shipments are still important for sales of some commodities. For example, U.S. food aid accounted for more than 40 percent of U.S. flour exports in fiscal 1988-90, although this share was down from almost 70 percent in fiscal 1978-80. Smaller aid shipments accounted for most of the decline.

Smaller rice aid shipments also caused the aid share of total U.S. rice exports to decline from 18 percent to 13 percent in fiscal 1988-90.

Commercial dairy product exports increased and aid shipments declined, trimming aid's share of total dairy exports from nearly 20 percent in fiscal 1978-80 to less than 5 percent in fiscal 1988-90.

Food aid shipments are increasing in importance for two commodity groups. Greater aid shipments of vegetable oils, combined with smaller total exports, raised the aid share of total exports to 28 percent in fiscal 1988-90 from 14 percent in fiscal 1978-80. Food aid's share of wheat exports rose slightly from 9 to 11 percent, with higher aid shipments in fiscal 1988-90. ■

High-value Exports Surpassed Traditional Bulk Products

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High-value product (HVP) exports exceeded bulk exports in fiscal 1991, something virtually unprecedented for U.S. agricultural trade. Rising by $1.1 billion, HVP exports reached a record $20.4 billion due to favorable exchange rates, continued growth in industrialized countries, and U.S. industry marketing efforts.

With world grain trade contracting, exports of bulk products fell $3.7 billion, causing overall U.S. agricultural exports to fall $2.6 billion, the first decline in 5 years.

U.S. agricultural production that is exported as an HVP has been processed (such as flour), receives specialized handling (such as fresh fruit and vegetables), or meets specific needs through higher than average quality or preserved identity in a niche market (such as animal and plant breeding stock). Generally, HVP's are agricultural products other than raw grains, oilseeds, cotton, and tobacco.

For example, wheat is a bulk export unless it is processed into flour or seeds, which are HVP's. Processing at packing plants gives meat and animal byproducts HVP status. Further, since a substantial proportion of U.S. livestock consumes grains and processed feed rather than pasture, U.S. animal product exports are considered HVP's because of the value added by feeding.

Bulk Commodities Long Dominated U.S. Farm Trade

While the first agricultural exports from North America included indigo, furs, and other HVP's, further settlement brought tobacco and cotton exports to dominate U.S. farm trade. In particular, cotton predominated during the first half of the 19th century. During the second half of the century, improvements in transportation catapulted grain into the forefront of agricultural exports. Continually increasing production as a result of American innovation and mechanization kept grain at the top of the agricultural export list well into the 1980's.

However, during this time, real prices (after adjusting for inflation) of bulk products generally fell, with the exception of the 1970's and early 1980's. For example, dur-

In fiscal 1991, the value of U.S. HVP exports exceeded that of bulk commodities, continuing their upward trend of the past several years.

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ing the last 20 years, U.S. prices for both bulk and HVP agricultural exports have risen about 130 percent, while U.S. consumer and nonfarm-export prices have risen more than 200 percent. As a result, cash receipts from farm marketings slid from equaling as much as 7 percent of gross national product (GNP) during the early 1960's to 3 percent since 1985.

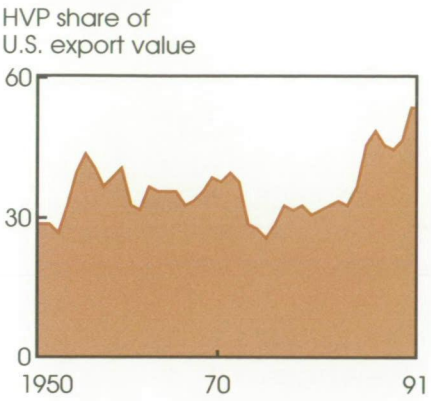
The purchasing power of farm products has been declining for three primary reasons. Historically, food consumption has increased more slowly than income once a certain level of industrialization and development has been achieved. Additionally, prices of manufactured goods tend to rise more quickly than raw materials. Finally, widespread government intervention in agriculture has increased production in regions of the world otherwise lacking a natural comparative advantage in producing farm products, resulting in lower world prices of bulk farm products (particularly grains). ERS has calculated that global agricultural supports averaged nearly $100 billion annually during 1982-86.

Grains Led Worldwide Fall in Bulk Exports

Grains led the decline in bulk exports, which fell from $21 billion in fiscal 1990 to $17 billion in fiscal 1991, following a world record wheat crop, record grain production in China, and a near record grain crop in the former Soviet Union.

High production in the former Soviet Union, coupled with its reduced solvency during fiscal 1991, lowered the Soviet's coarse grain imports from all sources by an estimated 9 million tons. This in turn led to a worldwide reduction in coarse grain trade. China's record grain production resulted in reduced imports and a 5-year high in coarse grain exports.

Figure 1
U.S. HVP Exports Surpassed Bulk Products



With world trade shrinking and competitor exports rising, U.S. coarse grain exports fell 17 million tons, or $2.3 billion, in fiscal 1991.

Volume changed less for U.S. wheat exports during fiscal 1991 than for coarse grains, but prices fell substantially on world markets. The volume of U.S. wheat exports fell only 1 million tons to 27 million tons, but export value fell $1.4 billion.

Importers overseas paid $43 per ton less for U.S. wheat than they did in fiscal 1990 as increased world supplies drove prices down. And, as world prices fell further below the European Community's (EC) domestic prices, EC export subsidies rose sharply, driving world wheat prices still lower.

HVP Exports Up

HVP exports accounted for 54 percent of all U.S. agricultural export value in fiscal 1991. This was up from 47 percent in fiscal 1990. Except during the two world wars, U.S. bulk exports have almost never accounted for less than 50 percent of U.S. farm product exports since at least the middle of the 19th century. The long-term changes in relative prices and recent government intervention in world markets cited earlier account for much of this shift in favor of HVP's.

The HVP share of U.S. agricultural exports has risen steeply since fiscal 1985 (fig.1). The increase was driven by gains in HVP shipments and the relative sluggishness of bulk exports. In fiscal 1970-84, before the increase occurred, HVP's were accounting for about a third of the value of U.S. agricultural exports.

Record-keeping Changes Affect HVP Exports to Canada

In fiscal 1991, Canada chalked up the largest gain in HVP exports from the United States, $752 million. However, much of this apparent growth reflects improved export reporting during fiscal 1991 rather than increased sales. In January 1990, the U.S. Government began using Canadian import statistics due to extensive undercounting for reported U.S. exports to Canada.

In fiscal 1990, these new accounting methods were partially responsible for much of an even larger apparent increase—$1.5 billion—in U.S. agricultural exports to Canada.

In fiscal 1991, a comparison between the flawed statistics from fiscal 1989 and the last 3 months in fiscal 1990 again inflated the reported export gains. If the $300-$400 million error from fiscal 1990 that occurred before the change in accounting methods is excluded, then U.S agricultural HVP exports to Canada in fiscal 1991 were only about $400 million higher than a year earlier rather than $752 million.

HVP Exports Higher to Europe and Mexico

The largest increases elsewhere for U.S. HVP exports came in shipments to Mexico, which rose $472

million, and Western Europe, which rose $404 million. In fact, Western Europe overtook Japan to recover its position as the largest market for U.S. HVP exports. U.S. HVP exports to East Asian countries other than Japan rose $138 million. This was the sixth consecutive annual increase to these rapidly developing countries.

HVP Exports to Japan Steady

For the second consecutive year, fiscal 1991 HVP exports to Japan slid, but the declines were so slight that fiscal 1991's exports were only 2 percent below their fiscal 1989 peak. Between fiscal 1985 and 1989, HVP exports to Japan more than doubled, as Japan surpassed Western Europe as the largest market for U.S. HVP's in fiscal 1989 and fiscal 1990.

Meat exports accounted for more than half of the $2-billion gain between fiscal 1985 and fiscal 1989, but meat exports fell slightly in fiscal 1990 and failed to rebound in fiscal 1991. Partially responsible for the expansion was an increasingly strong Japanese yen, which reduced the cost of importing.

Furthermore, the 1988 Beef and Citrus Agreement with the United States led to progressively higher Japanese import quotas for beef. Beef stocks grew in Japan but retail prices remained high, stunting consumption. As a result, imports weakened in fiscal 1990 while stocks remained high in fiscal 1991. In April 1991, Japan replaced its system of import quotas with a 70-percent tariff, which led to reduced imports during the last half of fiscal 1991. But, the tariff will be reduced in future years, brightening the prospects for imports.

HVP Exports Down Elsewhere

U.S. soybean oil exports to Pakistan were off sharply during fiscal 1991, largely because there were no shipments under Public Law (P.L.) 480. U.S. legislation precluded P.L. 480 assistance for Pakistan in fiscal 1991, because of concerns with Pakistan's nuclear energy research. In addition, Pakistan raised its soybean oil tariff and lowered its palm oil tariff, which encouraged a shift to palm oil.

U.S. HVP exports to the former Soviet Union have risen in recent years due to improving relations and to declining procurements from Soviet farmers. (As domestic procurements fell, the former Soviet Union increased imports to maintain supplies.)

While constraints on foreign exchange and credit led to a $38-million decline in U.S. HVP exports to the former Soviet Union in fiscal 1991, they were still the second highest on record at $523 million. Butter, which fell $68 million to zero in fiscal 1991, was the largest single change in HVP exports to the former Soviet Union.

Due to the United Nations embargo on trade with Iraq, U.S. HVP exports to the Middle East fell $253 million, a much larger decline than those to the former Soviet Union. U.S. HVP exports to North Africa fell $89 million due to reduced flour and soybean meal exports.

Outlook

The greatest growth in U.S. HVP exports began after the weakening of the U.S. dollar was well underway. In addition to favorable exchange rates, the export gains depended on strong economic growth in overseas markets—both in absolute terms and also relative to U.S. economic growth.

Preliminary data for 1992 suggest that U.S. HVP exports continued growing to another record high in fiscal 1992, and maintained their lead over bulk products.

While the weakness of the U.S. dollar on foreign exchange markets during much of fiscal 1992 bodes well for continued export growth in fiscal 1993, less than robust economic growth in industrialized foreign markets suggests some weaker, offsetting prospects.

U.S. Agricultural Trade...At a Glance

Nonagricultural Trade Grows Faster Than Agricultural Trade

Item	1970	1975	1980	1985	1990	1991
			Billion dollars			
Agricultural exports (deflated)[1, 2]	15	33	41	24	25	25
Total exports (deflated)[2]	92	166	221	168	248	255
Agricultural trade balance[1]	1	12	23	12	18	15
U.S. trade balance	1	2	-36	-134	-123	-87
			Percent			
Exports' share of farm production[1]	14	25	29	22	24	22
All U.S. exports as a share of GNP	4	7	8	5	7	7
U.S. share of:						
World agricultural exports	14	18	18	15	14	NA
All world exports	15	13	12	12	12	13
U.S. share of:						
World agricultural imports	11	7	7	9	7	NA
All world imports	15	13	14	20	16	14
U.S. agricultural exports as a share of all exports	16	20	18	14	11	10
Agricultural imports as a share of all imports	13	9	7	6	5	5
Agricultural export price index[1]	40	88	100	88	91	89
U.S. consumer price index	47	65	100	131	159	165

Note: NA = Not available. [1]Fiscal year. All others are calendar year. [2]In 1980 dollars. Source: *Foreign Agricultural Trade of the United States*, USDA, ERS, various issues. *Agricultural Outlook*, USDA, ERS, various issues. *FAO Trade Yearbook*, United Nations, Food and Agriculture Organization, various issues.

Grains and Oilseeds Led the List of U.S. Agricultural Exports...

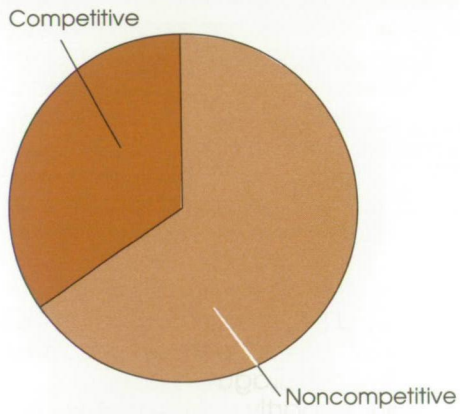
Product	Value[1] 1981	1986	1991
	Million dollars		
Feed grains and products	10,497	3,817	5,789
Wheat and products	8,052	3,547	3,089
Oilseeds and products	9,305	6,266	5,609
Fruit, nuts, and vegetables	3,558	2,915	5,973
Animal products	4,107	4,353	6,789
Rice	1,537	648	749
Other	6,724	4,763	9,615
Total	43,780	26,309	37,613

...While Fruit, Nuts, and Vegetables Dominated Imports in 1991

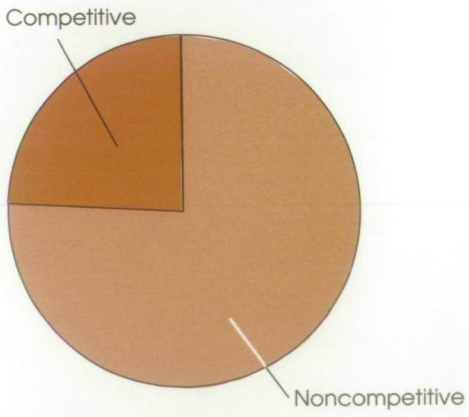
Bananas	501	700	992
Coffee	2,800	4,151	1,831
Cocoa and products	953	1,189	1,005
Meat	2,222	2,248	3,016
Fruit, nuts, and vegtables	1,966	3,493	4,669
Sugar	2,170	654	717
Vegtable oils	522	555	750
Other	6,084	7,894	9,608
Total	17,218	20,884	22,588

[1]Data are reported in fiscal years.
For more information, contact Stephen MacDonald at (202) 219-0822.

The Value of U.S. Competitive Imports Is Increasing...



1981
Total 17,218



1991
Total 22,588

U.S. Vegetable Exports to Japan...At a Glance

Japan Bought More U.S. Vegetables in 1991

Rising demand for fresh vegetables stimulated total U.S. vegetable exports to Japan in 1991. U.S. vegetable exports comprised fresh, frozen, and canned vegetables; dry pulses; and other prepared or preserved items. Sales increased from $332 million in 1990 to $383 million in 1991, representing 15 percent of all U.S. vegetables sales, and a tripling of 1985 sales.

The increases were not, however, spread evenly. Sales of frozen and canned vegetables declined, while fresh vegetable, dry pulse, and prepared or preserved vegetable sales rose.

Fresh vegetable exports registered the highest increase in volume, up 30 percent from 1990, despite the 12-percent increase in the aggregate unit value per ton. These compare with the 45-percent increase in all exports of U.S. fresh vegetables over 1990.

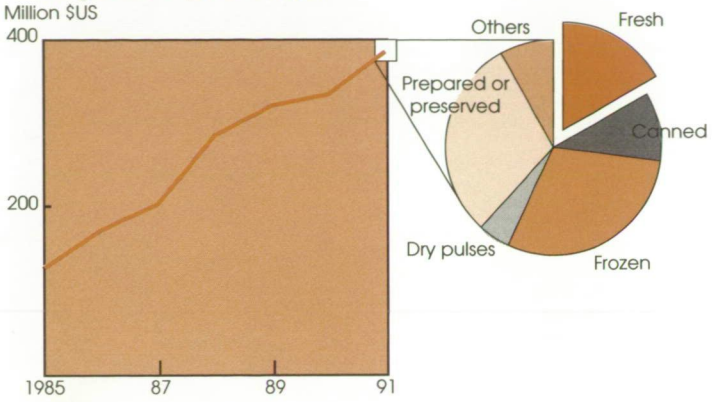
The rise in fresh vegetable exports is significant considering the price increase for many fresh items. For example, lettuce sales increased 16 times even though export prices were up 41 percent. Shipments of fresh broccoli increased over 4 times, despite a 53-percent increase in the export price. Celery exports more than doubled, despite an 8.4-percent hike in price per ton. The sales increases were due mainly to the high quality of U.S. shipments which were competitively priced on the world market.

On the other hand, U.S. exports of cauliflower doubled in response to a 7.6-percent decrease in price, but exports of asparagus, mushrooms, onions, and shallots declined, partly due to higher export prices.

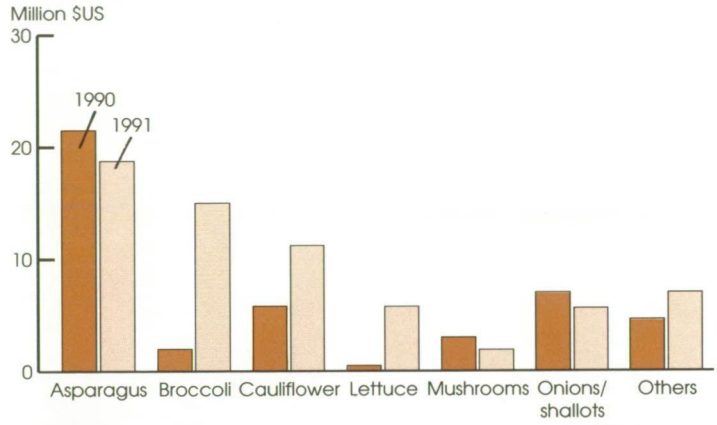
Japan's major suppliers include China, the United States, and Taiwan. Other suppliers include the European Community, Thailand, and South Korea.

For more information, contact Fawzi A. Taha at (202) 219-0610.

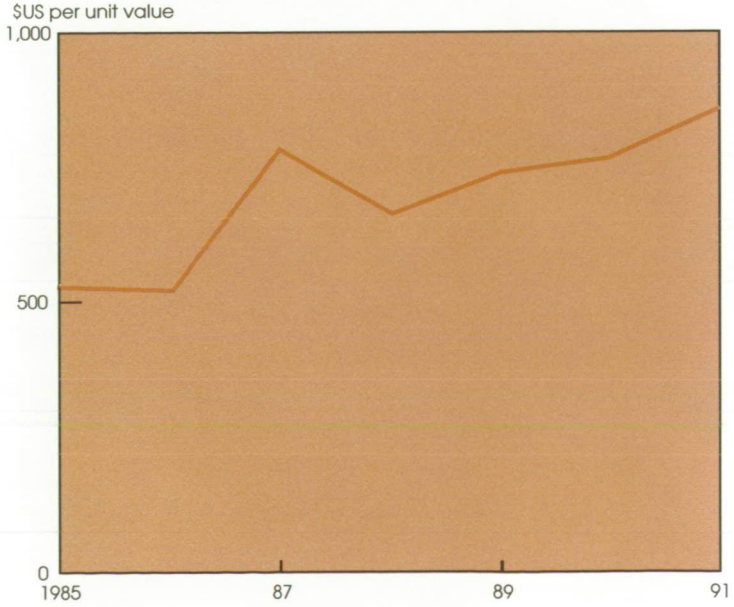
U.S. Vegetable Exports to Japan



U.S. Fresh Vegetable Exports to Japan



U.S. Fresh Vegetable Export Prices



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Charge your purchases to Visa or MasterCard. Or, order by mail from ERS-NASS, 341 Victory Drive, Herndon, VA 22070.

Food Consumption, Prices, and Expenditures, 1970-90

Americans spent $570 billion for food in 1991 and $85 billion for alcoholic beverages. Away-from-home meals and snacks captured 45 percent of the U.S. food dollar in 1991, up from 39 percent in 1980 and 34 percent in 1970. This annual best seller presents historical data on food consumption, prices, and expenditures, and U.S. income and population. Includes 1991 data where available.

—by Judith Jones Putnam and Jane E. Allshouse, 148 pp.

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Food Costs...From Farm to Retail in 1991

This annual summary of developments in retail food prices finds that the rise in retail food prices slowed dramatically in 1991 under the pressure of large food supplies and recession-weakened consumer demand.

—by Denis Dunham, 11 pp.

Stock #AIB-646 ..... $5

Food Cost Review, 1991

This perennially popular report presents USDA's findings on the 1991 farm-to-retail price spread. Food prices increased 2.9 percent in 1991, half the 1990 price rise. Higher charges for processing and distribution were major reasons for the price increase. The prices farmers received for their commodities, as measured by the farm value of USDA's market basket of foods, declined 6.2 percent.

—by Denis Dunham, 50 pp.

Stock #AER-662 ..... $8

Food Marketing Review, 1991

This best seller examines developments in the U.S. food marketing system. Although retail sales in the food marketing system showed recession-led declines in 1990 and 1991, food manufacturers and retailers continued to boost profitability because of stable wages, producer prices, and streamlining of operations.

—by Anthony Gallo and others, 137 pp.

Stock #AER-657 ..... $14

Food Spending by Female-headed Households

This technical study suggests that, on a per person basis, female-headed households, a growing proportion of the U.S. population, spend less for food than do similar two-parent households. The study analyzes the influence of household type on food expenditure patterns, after controlling for household income and other socioeconomic characteristics.

—by Elizabeth Frazao, 55 pp.

Stock #TB-1806.....$11

Foreign Agricultural Trade of the United States, Calendar Year 1990: Supplementary Tables

Using statistical summaries, this report shows U.S. foreign trade in agricultural products by country during calendar years 1989 and 1990 for exports and imports valued at more than $1 million.

—by Mary L. Fant, 291 pp.

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From Farming to Food Service: The Food and Fiber System's Links with the U.S. and World Economies

This report examines the role of farming in the food and fiber sector, the interaction between the food and fiber sector and the rest of the U.S. economy, and its linkages through trade with the world economy.

—by Kathryn L. Lipton and Alden C. Manchester, 37 pp.

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A History of American Agriculture, 1776-1990

An entertaining, informative summary of the highlights of agriculture in America, this 50" x 45" wall chart explodes with photographs, drawings, maps, and charts that depict significant events in the history of American agriculture. The time-line poster provides a decade-by-decade account of the

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For further information on the data included in these products, please contact the subject-area specialist identified. Data products are shipped in the formats specified on DOS-compatible 5.25" 360KB or 3.5" 1.44MB diskettes or on unlabeled, 9-track, 6250 b.p.i. magnetic tapes as appropriate. Dates in parentheses reflect the last update of the database available.

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Fresh Fruit Prices and Marketing Spreads

Retail values, wholesale and shipping point prices, transportation charges, and market price spreads for eight fresh fruit. Marketing season monthly data for 1985-91.

—Fannye Lockley-Jolly, ERS, 202-219-0888. [Lotus 1-2-3 (.WK1), two 5.25" disks], (2/92).

Stock #88002.....$35

Fresh Vegetable Prices and Marketing Spreads

Monthly and seasonal prices, spreads, and transportation charges, 1985-91, for 11 vegetables sold in the Northeast, North Central, South, and West marketing regions, and in New York City and Baltimore.

—Fannye Lockley-Jolly, ERS, 202-219-0888. [Lotus 1-2-3 (.WK1), two 5.25" disks], (2/92).

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Plant Protection and Quarantine

Reports the quantity of U.S. imports of 200 fresh fruit and vegetables subject to the Plant Protection and Quarantine program. Data are reported by commodity, by country of origin, and by port of entry for fiscal years 1983-89.

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Processed Food Trade

U.S. trade in processed food, 1988-91. Values of exports and imports are shown by SIC product group for each trading partner.

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Tobacco Yearbook

U.S. and world data on production, supply, trade, disappearance, and prices for tobacco products, 1950-91. Includes data on U.S. tobacco acreage, yield, production, stocks, and marketings by type.

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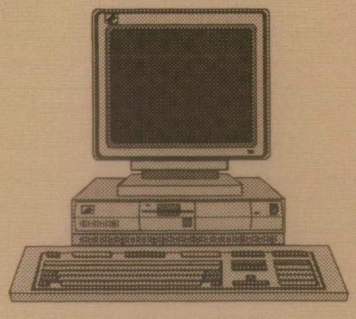

economic and social trends, technologies, legislation, movements, and efforts that have shaped U.S. agriculture from pre-Colonial times to the present.

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How Did Household Characteristics Affect Food Spending in 1980-88?

Looks at trends in U.S. per capita consumption of total food, food at home, and food away from home using the latest data from annual surveys of urban household food spending for 1980 to 1988.

—by James R. Blaylock and others, 17 pp.

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Latin America's Big Three Sugar Producers in Transition: Cuba, Mexico, and Brazil

A Profile of the sugar industries in Cuba, Mexico, and Brazil, this report provides benchmark data and analysis to help judge the direction they may take into the later 1990's. Major government policy turning points for these three largest Latin American sugar producers could significantly affect U.S. and world trade.

—by Peter Buzzanell, 36 pp.

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Rearranging the Economic Landscape: The Food Marketing Revolution, 1959-91

Changes in the makeup of the population, lifestyles, incomes, and attitudes on food safety, health, and convenience since World War II have altered the conditions facing farmers and marketers of food products. Food manufacturers and distributors are addressing changes in consumer wants and needs. This report examines the changes in the marketing of farm and food products since 1950 and the factors that have caused such change.

—by Alden C. Manchester, 165 pp.

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A Summary of Federal Laws and Regulations Affecting Agricultural Employers, 1992

Updating a popular 1989 publication, this report is a single-source reference that summarizes Federal laws and regulations governing employment, taxes, wages, and working conditions of agricultural workers. Includes an expanded section on agricultural employers' Federal safety and tax requirements and a new section on Federal equal opportunity guidelines.

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Mounting debt and a continuing inability to feed their populations led countries of Sub-Saharan Africa to undertake reform programs to make their economies more market-oriented. At the same time, they sought to protect the food security of their most vulnerable groups. Case studies of Kenya, Tanzania, and Zimbabwe represent the common dilemma: how to adhere to long-term economic reform while protecting vulnerable consumer groups from market inefficiencies and price shocks.

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Food Marketing Review, 1991

Discover what's happening in the U.S. food marketing system as fewer but larger firms compete for limited retail shelf space and a share of the consumer's food dollar.

Here's a sampling of the topics covered in detail by this fact-filled report from USDA's Economic Research Service:

- A smaller portion of the Nation's resources are being used each year to feed a larger population. But to compete in a slow growth market, food manufacturers are issuing record numbers of new products and competing for shelf space in a system increasingly dominated by fewer but larger firms.

- Retail sales of the food marketing system failed to keep up with inflation in both 1990 and 1991, but reached about $750 billion in 1991. Wage and price stability helped keep processor and retailer operations profitable in both 1990 and 1991, despite poor sales growth.

- In both 1990 and 1991, the food system continued its restructuring, global thrust, automation, and competition for the consumer dollar.

Food Marketing Review, 1991 is an in-depth view of the U.S. food marketing system. It examines developments in all firms servicing the U.S. food supply— manufacturing, wholesaling, and retailing.

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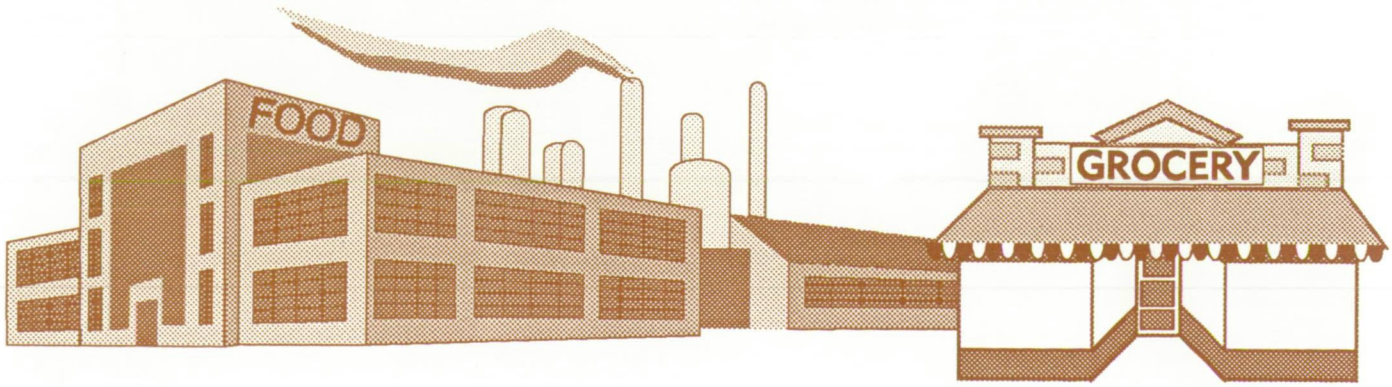
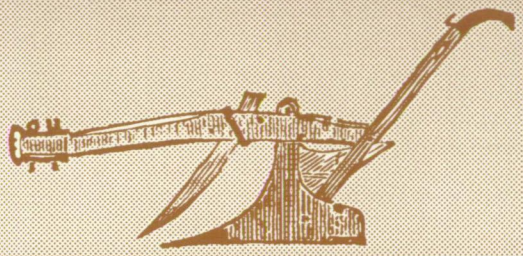
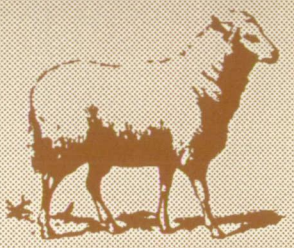
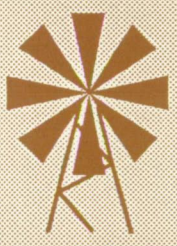


A History of American Agriculture, 1776-1990







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