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Food Costs . . . From Farm to Retail in 1992

Denis Dunham

U.S. DEPARTMENT OF AGRICULTURE
ECONOMIC RESEARCH SERVICE
WASHINGTON, D.C. 20250

How much are food costs changing? Why? How much of the consumer food dollar goes to the farmer and how much to food processors and marketers? Because of great interest in these questions, Congress directed the U.S. Department of Agriculture (USDA) to regularly study them and to report its findings. This bulletin provides the answers, focusing on developments in 1992.

Food Prices Rose the Least in 25 Years

The rise in retail food prices slowed dramatically in 1992 under the pressure of large food supplies and the weak economy's dampening effect on food demand. Food prices in 1992, as measured by the Consumer Price Index (CPI), averaged 1.2 percent above those in 1991, less than half the 1991 price increase of 2.9 percent. Moreover, the 1992 increase was the lowest since that in 1967 when the index rose 0.9 percent.

For the second consecutive year, food prices in 1992 rose more slowly at supermarkets and other grocery stores than at eating places. Food prices in grocery stores rose only 0.7 percent, and prices for restaurant meals advanced by 2 percent. In both cases, prices increased much more slowly than they had the year before. While prices were up slightly overall, grocery store prices of some foods in 1992 were lower than those in the year before. These foods included meats, poultry, and eggs. Price hikes were largest for cereals and bakery products and for dairy products.

A variety of factors kept food price increases small in 1992. Changing consumer spending habits, lower inflation, and larger supplies of food played important roles. Slow growth in consumers' real income and low consumer confidence held down food spending, particularly for high-value, high-priced products and restaurant meals. The 1991 recession, followed by the slow pace of economic recovery in 1992, increasingly drove consumers to shop for the best priced deals.

The marketing spread, the difference between the farm value and retail price of food, consistently contributes more to food price increases than do volatile farm prices. Higher costs for labor, packaging, energy, and

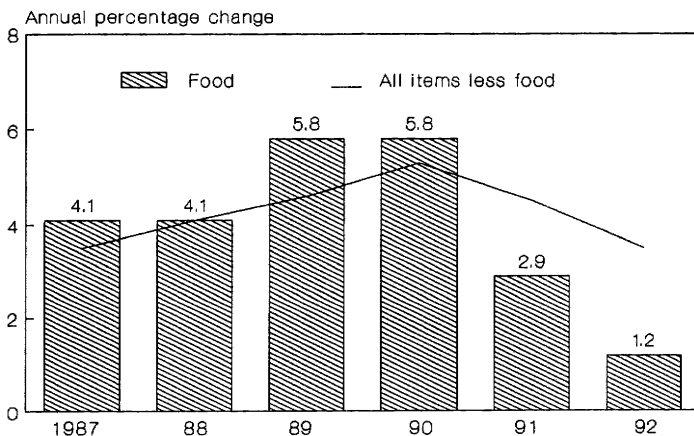
other marketing inputs push the spread wider nearly every year. But the 1992 rise in the farm-to-retail price spread was only 2 percent, substantially smaller than that of recent years. This small rise can be attributed partly to a lower general inflation rate.

Another factor holding down food prices was lower farm prices of some commodities, particularly hogs and fresh fruits. Overall, there was a 2.5-percent decrease in the farm value of food commodities in 1992, the second consecutive yearly decline. The effect of change in commodity prices on retail prices depends on what proportion the farm value is of the retail price. That share varies from less than 10 percent to around 60 percent, depending on the food. On average, the farm value share of retail dollars spent at grocery stores in 1992 was 26 percent.

Food prices in 1992 rose less than prices for most other consumer products and services. Among major items in the CPI, housing prices, the largest component, went up 2.9 percent, and apparel and upkeep prices rose 2.5 percent, but medical care costs climbed 7.4 percent in 1992. In 6 of the past 10 years, the CPI for food rose by a smaller amount than the CPI for all items.

Consumer price indexes

The food price increase was smaller than the nonfood increase in 1992 and in 6 out of the last 10 years.



Price Changes Mixed Among Foods

Consumers had to pay moderately higher prices for most packaged, prepared foods at the supermarket in 1992, but meat, poultry, and eggs were better buys.

The principal factors affecting retail food prices, marketing costs and commodity prices, seldom have the same effects on all food products in the market basket. Price changes among food groups created only a small overall rise in food prices. But within the range of price changes, pork prices fell 4.7 percent, egg prices fell 10.6 percent, milk prices increased 3.3 percent, bread prices rose 5 percent, and fresh fruit prices dropped 5 percent. The following identifies the factors that probably most influenced retail price changes of the major food categories in 1992.

Meat. Beef and veal prices averaged 0.1 percent lower in 1992 than a year earlier, the first price decrease in 6 years. Per capita beef and veal consumption remained at about 68 pounds (retail weight) in 1992 because population growth and larger beef exports offset about a 1-percent rise in beef production. Increases in supplies of already relatively low-priced pork and poultry and weak consumer demand held down beef prices. The farm-to-retail price spread declined slightly from a high level in 1991.

Retail pork prices declined 4.7 percent in 1992 as pork production shot up about 8 percent. Production exceeded the record set in 1980. Nearly all the price decline in retail pork prices was in farm value, but the farm-to-retail spread averaged slightly lower. With larger production, pork consumption rose to 53 pounds (retail weight) per capita in 1992, about 3 pounds more than in 1991.

Poultry and eggs. Retail poultry prices declined slightly in 1992 for the third consecutive year. Prices held relatively firm despite larger supplies of poultry because of record exports of broilers and turkeys. Broiler chicken production increased about 6.5 percent in 1992, extending a long-term expansion, and turkey production was up about 3 percent. As a consequence, poultry consumption increased to 87 pounds (retail weight basis) per capita in 1992, about 3 pounds more than in 1991.

Table egg production was about 2 percent larger in 1992 and the largest since 1988, causing egg prices to decline at the farm, wholesale, and retail levels. Retail egg prices averaged 10.6 percent lower in 1992 than in 1991. Per capita egg consumption, which has declined about 12 percent in the past decade, was fairly stable. Consumption totaled 232 eggs per capita in 1992, 32 eggs per capita less than in 1982, reflecting

a steady decline in shell egg use. Use of processed egg products, nearly a fourth of total consumption, grew about 50 percent per capita since 1982, due partly to greater manufacturing use in food products, such as pasta and baked goods.

Dairy products. Retail prices of milk and other dairy products averaged 2.7 percent higher in 1992, following a small decline the year before. Price increases were largest for fresh milk and cream (3.8 percent). Prices for cheese and other processed products rose 1.6 percent. Farm milk prices averaged about 8 percent higher in 1992, reflecting strong prices of dairy products the first half of the year. A lower farm-to-retail spread helped to mitigate the effects of higher farm prices on retail product prices. Milk production in 1992 was about 2 percent above the year before, but stronger dairy demand absorbed the extra milk without significantly affecting prices.

Fish and seafood. Fish and seafood prices increased 2.3 percent in 1992, the largest increase in 3 years. Higher fresh and frozen seafood prices accounted for the rise; prices of canned fish and seafood declined slightly. Price increases were much larger during the 1980's, as consumption of seafood grew about 30 percent to peak at 16.2 pounds per capita in 1987. However, consumption had fallen to 14.9 pounds in 1991, resulting in much smaller price increases in recent years.

Cereals and bakery products. Retail prices for cereals and bakery products averaged 3.9 percent higher in 1992, the largest rise among major food groups. Some of the increase came from manufacturers raising prices early in the year because of low wheat stocks that caused wheat prices to rise to a 3-year high in February. The 1992 farm value of commodities used in cereals and bakery products averaged 11 percent higher than that of 1991. Rising retail prices also reflected higher charges by bakers and cereal manufacturers for processing and marketing functions. Flour prices led the category, increasing by 5.5 percent. White bread prices advanced 5 percent. Cereal prices rose 4.3 percent in 1992, but increases have been larger than price increases for most other products in the food-at-home index in the past decade. Per capita consumption of breakfast cereals rose about 24 percent from 1982 to 1990.

Fresh fruits and vegetables. Fresh fruit prices averaged 5 percent lower in 1992, but price increases varied widely among fruits. Most of the decline can be attributed to a recovery of orange production in California, resulting in a price decline for oranges of 29 percent in 1992. Orange prices soared 55 percent in 1991 due to a December 1990 freeze in California that created short fresh-market supplies and reduced the 1990/91 crop by 62 percent from the previous year. Prices of bananas, the most popular fresh fruit, declined 3.5 percent. Apple prices averaged 3.9 percent higher, reflecting a smaller Washington crop in 1991.

Prices of fresh vegetables averaged 2.3 percent higher in 1992, due mostly to excess rains in Mexico causing a gap in tomato supplies. Monthly tomato prices were very volatile in 1992, ranging from 75 cents per pound in June to \$1.73 per pound in March. Total supplies of major fresh-market vegetables were 4 percent larger, creating only slight price increases. Retail prices for fresh potatoes averaged 2.1 percent lower in 1992, reflecting a record large potato crop in 1991 that kept prices down. The 1992 crop was slightly smaller, causing higher prices in the fourth quarter.

Processed fruits and vegetables. Processed fruit and vegetable prices rose 2.7 percent in 1992. Prices for processed vegetables were stable, but processed fruit prices rose by 4.5 percent. Higher fruit prices in 1992 were attributed mainly to higher prices for apple juice and canned fruit, especially peaches and pears. Frozen concentrated orange juice prices rose 2.6 percent in 1992.

Fats and oils. The fats and oils component of the food CPI averaged 1.4 percent lower in 1992 because of large supplies of vegetable oils and a record peanut crop. Peanut butter prices dropped 10 percent, following record high prices in 1991 due to drought damage to the crop. Margarine prices declined 2.2 percent, reflecting record large supplies of soybean oil, the major ingredient of margarine.

Nonalcoholic beverages. Nonalcoholic beverage prices rose a scant 0.2 percent in 1992, which considerably moderated the overall increase in grocery store food prices. Coffee prices were 4 percent lower. Failure of coffee-producing countries to agree on shipment quotas resulted in large coffee supplies that depressed prices. Carbonated drink prices rose 1.7 percent. Annual carbonated drink price increases averaged slightly above 1 percent over the past decade, due to price competition for market share among soft drink companies and industry productivity gains that annually averaged about 7 percent.

Price changes for food and nonfood items in 1992

Food prices at grocery stores (food at home) rose more slowly than at restaurants (food away from home) for the second consecutive year.

Year	Food	Consumer Price Index			
		Food at home	Food away from home	All items	All items less food
<i>Percent change</i>					
1980	8.6	8.1	9.9	13.5	14.5
1981	7.8	7.2	9.0	10.3	10.9
1982	4.1	3.5	5.4	6.2	6.5
1983	2.1	1.0	4.4	3.2	3.5
1984	3.8	3.7	4.2	4.3	4.3
1985	2.3	1.5	3.9	3.6	3.8
1986	3.2	2.9	3.9	1.9	1.7
1987	4.1	4.3	4.0	3.6	3.5
1988	4.1	4.2	4.1	4.1	4.1
1989	5.8	6.5	4.6	4.8	4.6
1990	5.8	6.5	4.7	5.4	5.3
1991	2.9	2.6	3.4	4.2	4.5
1992	1.2	.7	2.0	3.0	3.5

Source: U.S. Department of Labor, Bureau of Labor Statistics.

Major food category annual retail price changes

Retail prices of most principal food categories either declined or increased less in 1992 than in 1991.

Food	1990	1991	1992
<i>Percent change</i>			
All food	5.8	2.9	1.2
Food at home	6.5	2.6	.7
Meat	10.1	3.1	-1.4
Beef and veal	8.0	2.8	-.1
Pork	14.7	3.3	-4.7
Poultry	-.2	-.8	-.1
Fish and seafood	2.2	1.1	2.3
Eggs	4.7	-2.3	-10.6
Dairy products	9.4	-1.1	2.7
Fresh fruits	12.1	13.5	-5.0
Fresh vegetables	5.6	2.2	2.3
Processed fruits and vegetables	6.2	-1.9	2.7
Cereals and bakery products	5.7	4.1	3.9
Sugar and sweets	4.4	3.7	2.9
Fats and oils	4.2	4.3	-1.4
Nonalcoholic beverages	2.0	.5	.2
Other prepared foods	4.5	4.5	2.2
Food away from home	4.7	3.4	2.0

Source: U.S. Department of Labor, Bureau of Labor Statistics.

Farm Value of Food Products Dropped

Lower hog, egg, and fresh fruit prices mainly accounted for the decline in farm value in 1992.

The average farm value (what farmers receive) of USDA's market basket of foods was 2.5 percent lower in 1992, the second consecutive annual decline. With last year's decline, the 1992 farm value of foods was only 4 percent higher than the value a decade earlier. Since that time, there have been few increases in farm value, except for a significant rise in 1989 induced by the previous year's drought, and a rise in 1990.

Red meat accounts for about 36 percent of the farm value of USDA's market basket. Farm value for red meat declined 5 percent in 1992, mainly reflecting a drop in hog prices of 13 percent. For 1 pound of pork selling at retail for \$1.98 in 1992, hog producers received 68 cents for the equivalent quantity of live animal (1.7 pounds), nearly 11 cents less than in 1991. Steer cattle prices averaged slightly higher in 1992, causing in a small increase in the farm value for beef. For 1 pound of Choice grade beef selling for an average retail price of \$2.85, cattle producers received \$1.62 for the equivalent quantity of live animal (2.4 pounds) in 1992, up 2 cents from in 1991.

Higher producer prices for milk increased the farm value of dairy products by an average of 6.5 percent. A half gallon of fluid milk retailing for \$1.39 returned the producer about 60 cents in 1992, 5.5 cents more than in 1991.

Poultry producers increased broiler and turkey output in 1992 at near the same growth rate as in recent

years. Yet, with poultry production up about 5.5 percent for the year, farm value of poultry rose slightly. Poultry prices were strengthened by record exports of broilers and turkey. Broiler chicken producers received 45 cents of the average retail price of 87 cents per pound of whole frying chicken in 1992, about 1 cent more than in 1991.

Farm value of eggs declined sharply in 1992, reflecting a 2-percent increase in output. Farm value in 1992 averaged 46 cents for a dozen eggs with an average price of 86 cents at grocery stores. All of the decline in farm value (13 cents) was passed to the consumer through lower retail egg prices.

The farm value of cereals and baked goods rose 11 percent in 1992, mainly reflecting higher prices of wheat. Farmers received 4.4 cents in 1992 for the wheat in a 1-pound loaf of white bread selling for 75 cents in supermarkets, 1 cent more than in 1991. The 1992 farm value of other bread ingredients, mainly shortening and sweeteners, was 0.6 cent, unchanged from 1991.

Oranges dominated the sharp decline in the fruit farm value because it is heavily weighted by orange prices. So when fresh orange prices shot up following the freeze in 1990, the farm value rose to a record high in 1991. In 1992, orange production recovered, sending down prices and the overall fruit farm value.

The Market Basket

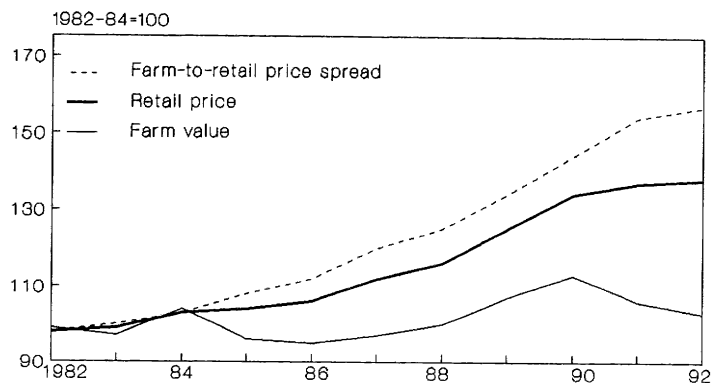
USDA uses its market basket concept to track price changes for the commodities farmers sell and the food consumers buy in retail grocery stores. The market basket contains the annual average quantities of foods purchased per household in a base period. It excludes fish and seafood, nonalcoholic beverages,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

- **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 retail grocery stores.

Food price components

Farm value of food products dropped for the second consecutive year, making the 1992 value only 4 percent higher than the value a decade earlier.



Retail prices based on the Consumer Price Index for food eaten at home. Farm value based on prices received by farmers. Price spread represents processing and distributing charges.

Farm Value Share of Food Prices Declined

The 1992 farm value for a market basket of foods averaged 26 percent of the retail price, slightly lower than the year before.

Farm value shares vary greatly among foods. The more highly processed table-ready foods are, the more they cost overall and generally the smaller the farm share. For instance, eggs returned an average of 53 percent of their retail cost to the farmer in 1992, which was low because of the sharp drop in egg prices. Aside from cleaning, inspecting, and boxing, there is very little that must be done to eggs except market them. At the other end of the spectrum, cereal products returned an average of only 5 percent to the grower. Wheat, corn, or oats start at a grain elevator, continue through cleaning, milling, and manufacturing into the desired shape and variety, and go on through packaging and distribution. Also, unlike egg producers, the highly competitive cereal makers engage in expensive advertising and promotion of cereal products to encourage consumers to select their product from the many choices.

Foods derived from animal products tend to have a higher farm value share than do those derived from crops, because farm inputs are greater for animal products than for crops. For example, the 1992 farm value share was 57 percent for Choice beef, and 43 percent for whole milk. Other factors affecting the farm value share among foods include costs of transporting from farm to consumer, product perishability, and the amount of space the product occupies in retail food stores. These factors largely account for most of the retail cost and the relatively low farm value share for fresh fruits and vegetables.

Farm value, price spread, and retail food prices

The widening farm-to-retail price spread boosted retail food prices in 1992.

Year	Market basket of foods sold in grocery stores			
	Farm value of food	Farm-to-retail price spread	Retail price	Farm value share of retail price
	-----Percent change-----			Percent
1982	-0.7	6.0	3.6	35
1983	-1.7	2.3	.9	34
1984	6.3	2.8	3.9	35
1985	-7.1	5.6	1.2	32
1986	-1.4	3.9	2.1	31
1987	2.3	6.1	5.0	30
1988	3.8	4.7	4.4	30
1989	6.5	7.2	7.0	30
1990	5.7	7.8	7.1	30
1991	-6.2	6.7	2.9	27
1992	-2.5	2.0	.7	26

Farm value share differences, by foods

Farm value share was highest for animal products in 1992.¹

Food	Retail price	Farm value	Farm value share of retail price ²
	----Dollars----		Percent
Animal products:			
Eggs, Grade A large, 1 doz	0.86	0.46	54
Beef, choice, 1 lb	2.85	1.62	57
Chicken, broiler, 1 lb	.87	.45	51
Milk, 1/2 gal	1.39	.60	43
Pork, 1 lb	1.98	.68	34
Cheese, natural cheddar, 1 lb	3.57	1.17	33
Fruits and vegetables:			
Fresh--			
Oranges, California, 1 lb	.57	.10	18
Lemons, 1 lb	1.01	.23	23
Potatoes, 10 lbs	3.05	.64	21
Apples, red delicious, 1 lb	.89	.25	28
Grapefruit, 1 lb	.61	.12	20
Lettuce, 1 lb	.58	.10	18
Frozen--			
Orange juice concentrate, 12 fl oz	1.42	.57	40
Broccoli, cut, 1 lb	1.18	.26	22
Peas, 1 lb	.98	.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
Applesauce, 25-oz jar	1.00	.18	18
Peas, No. 303 can (17 oz)	.47	.10	21
Corn, No. 303 can (17 oz)	.45	.09	20
Pears, No. 2-1/2 can	1.31	.22	17
Peaches, cling, No. 2-1/2 can	1.15	.18	16
Green beans, cut, No. 303 can*	.45	.06	14
Tomatoes, whole, No. 303 can	.51	.05	10
Dried--			
Beans, 1 lb	.57	.19	34
Raisins, 15-oz box*	1.41	.39	28
Crop products:			
Sugar, 1 lb	.38	.15	39
Flour, wheat, 5 lbs	1.22	.36	29
Shortening, 3 lbs	2.50	.58	23
Margarine, stick, 1 lb	.85	.16	19
Rice, long grain, 1 lb	.53	.10	19
Prepared foods:			
Peanut butter, 1 lb	1.88	.48	26
Potato chips, regular, 1-lb bag	1.92	.24	13
Pork and beans, No. 303 can (16 oz)	.39	.06	15
Chicken dinner, fried, frozen, 11 oz*	1.21	.15	12
Potatoes, french fried, frozen, 1 lb	.87	.09	10
Bread, 1 lb	.75	.05	7
Corn flakes, 18-oz box	1.77	.09	5
Oatmeal, regular, 42-oz box*	2.58	.14	5
Corn syrup, 16-oz bottle*	1.38	.05	4

¹January-June 1991 average for items noted with asterisk.

²Computed from unrounded data.

Farm-to-Retail Price Spread Widened

The 2-percent increase in the farm-to-retail price spread in 1992 was the smallest in many years, probably due to the general economy's dampening effect on food buying and inflation.

The farm-to-retail price spread, which represents the difference between retail prices and farm value of commodities, grew at a 5.6-percent annual rate in recent years, well in excess of the farm value and inflation. The spread, therefore, consistently contributed much more to rising food prices than did farm value. In 1992, the 2-percent increase in the spread was well below trend. This slow increase was probably due to consumers' increasing price sensitivity, which forced food companies to limit price increases to boost margins, or watch already weak sales erode. The growing strength of warehouse clubs and other price-oriented retailers likely placed further limits on the pricing power of supermarkets.

Although the ability to increase margins was limited, the weak economy and greater price stability were favorable to industry costs, such as labor and packaging. Prices of inputs used in processing, wholesaling, and retailing foods increased by an average of 2 percent in 1992 compared with 2.3 percent in 1991, as measured by an Economic Research Service food marketing cost index. Prices of packaging materials and energy inputs declined slightly, and short-term interest rates fell about 35 percent, moderating the overall rise in the index. A larger rise in labor compensation, which accounts for roughly half the index, caused most of the increase in marketing costs. The labor component, consisting of average hourly earnings of workers and employer benefit costs such as health insurance and Social Security payroll taxes, rose 3.1 percent, up from 2.6 percent in 1991. Hourly wages, particularly in food retailing, have risen very moderately in recent years, due partly to changes in the labor force, such as greater employment of part-time and entry-level workers who typically earn lower wages.

Price spreads increased for almost all 10 food groups in the market basket in 1992, but the increases were much smaller than in 1991. The farm-to-retail price spread for red meats widened only about 1 percent, after 2 years of large increases that probably made it difficult to increase margins in 1992 without cutting into consumer demand for meat. In addition, abundant supplies of meat pushed down farm and retail prices, which enabled retailers to increase meat sales and profits without increasing margins.

The farm-to-retail price spread for pork decreased about 2.5 percent in 1992, as the sharp decline in retail pork prices was slightly greater than the drop in farm value. Prices of Choice beef were relatively steady, but the farm-to-retail price spread declined slightly from a record level in 1991.

Cereals and bakery products generally account for 20 percent of the farm-to-retail price spread of the market basket. The spread for this food category widened 3.3 percent in 1992, possibly limited by an increase in the farm value of ingredients. For the cereal industry, profit margins generally continued to expand because of price increases, which averaged 4.3 percent at retail. Cereal consumption remained almost level, probably in response to rising retail prices and subsiding consumer response to the positive nutritional claims that are credited with increasing cereal consumption during the past decade.

The price spread for poultry, which increased only 2 percent in 1991, narrowed by about 1 percent in 1992. The small decline in the spread resulted from the downward pressure large supplies placed on retail poultry prices. The price spread for eggs rose 3.5 percent in 1992, resulting from a smaller decline in retail egg prices than in farm prices.

The average farm-to-retail price spread for dairy products increased about 1 percent in 1992. With the exception of 1990, when it grew more than at any time since 1980, the price spread for dairy products has risen less than that for most foods in most years of the past decade. For 1992, an increase in the farm value of milk caused retail prices to rise moderately but probably limited the increase in the price spread. The farm-to-retail price spread for a half gallon of whole milk retailing for \$1.39 was 80 cents in 1992, down 3 cents from in 1991.

The farm-to-retail price spread increased about 4 percent for fresh fruit in 1992 and was virtually unchanged for vegetables. Retail fruit prices declined, however, because of a sharp drop in farm value. Vegetable prices rose moderately due to higher farm value. In contrast to 1992, a 5-year average of price changes reveals that increases in farm-to-retail price spreads had the most significant effect on retail prices.

Producers and consumers tend to believe that price spreads in general are too high. However, price spreads in general are too high only if the same or a better job of marketing could be done for less money, or for the same money. On this basis, price spreads may be too high, but the practical questions are, why are they too high and what can be done to reduce them? This brief statement cannot answer these

questions. There are, however, remedies for some of the factors that could make marketing spreads more than necessary. For example, if price spreads are too high because processors or distributors are making undue profits, the answer would appear to lie in increased competition. If margins are too high because labor costs are too high, the answer would appear to lie in increasing labor efficiency.

Market basket price components

The farm-to-retail price spread widened for almost all food groups in 1992, but at a rate that was well below the trend of recent years.

Food group and price components	1987	1991	1992	Annual change	
				1987-92	1991-92
	---Index, 1982-84 = 100---			---Percent---	
Market basket:					
Retail price	111.6	137.4	138.4	4.4	.7
Farm value	96.9	106.1	103.4	1.3	-2.5
Farm-to-retail spread	119.5	154.2	157.3	5.6	2.0
Meats:					
Retail price	109.6	132.5	130.7	3.6	-1.4
Farm value	101.2	110.0	104.5	.6	-5.0
Farm-to-retail spread	118.3	155.6	157.5	5.9	1.2
Dairy:					
Retail price	105.9	125.1	128.5	3.9	2.7
Farm value	93.4	90.0	95.9	.5	6.5
Farm-to-retail spread	117.5	157.4	158.6	6.2	.7
Poultry:					
Retail price	112.6	131.5	131.4	3.1	-.1
Farm value	93.8	102.5	104.0	2.1	1.5
Farm-to-retail spread	134.2	164.9	163.0	4.0	-1.2
Eggs:					
Retail price	91.5	121.2	108.3	3.4	-10.6
Farm value	76.8	100.9	77.8	.2	-22.9
Farm-to-retail spread	117.9	157.6	163.2	6.7	3.5
Cereal and bakery:					
Retail price	114.8	145.8	151.5	5.7	3.9
Farm value	71.0	85.4	94.7	5.9	11.0
Farm-to-retail spread	120.9	154.2	159.4	5.7	3.3
Fresh fruit:					
Retail price	135.6	200.1	189.6	6.9	-5.2
Farm value	113.9	172.8	122.5	1.5	-29.1
Farm-to-retail spread	145.7	212.6	220.6	8.6	3.7
Fresh vegetables:					
Retail price	121.6	154.4	157.9	5.3	2.3
Farm value	109.6	110.8	121.6	2.1	9.8
Farm-to-retail spread	127.7	176.8	176.6	6.7	-.1
Processed fruits and vegetables:					
Retail price	109.0	130.2	133.7	4.2	2.7
Farm value	111.1	122.0	129.0	3.0	5.8
Farm-to-retail spread	108.3	132.8	135.2	4.5	1.8
Fats and oils:					
Retail price	108.1	131.7	129.8	3.7	-1.4
Farm value	74.4	98.0	93.2	4.6	-4.9
Farm-to-retail spread	120.5	144.2	143.3	3.5	-.6
Other prepared food:					
Retail price	113.8	137.1	140.1	4.3	2.2
Farm value	99.8	105.7	101.8	.4	-3.6
Farm-to-retail spread	116.0	142.1	146.2	4.8	2.9

Consumer Food Expenditures Higher

While food spending increased, the percentage of income spent for food declined because disposable personal income rose more than food expenditures.

Food expenditures by families and individuals totaled \$503 billion in 1992, only 2.3 percent more than in 1991. The increase in spending was about equal to the rises in food prices and population combined.

Spending for food eaten at home by families and individuals totaled \$315.5 billion in 1992, 2 percent more than in 1991. Spending for meals and snacks eaten away from home rose slightly more, at 3 percent. In real terms (spending adjusted for retail food price increases), however, spending for food for at-home use increased slightly more than spending for away-from-home eating. However, in most recent years during the 1980's, more away-from-home eating caused a greater real growth in spending. But in 1991-92, slowly rising incomes and high unemployment combined to suppress spending for food away from home. The share of total food spending for away-from-home meals and snacks was 37.3 percent in 1992, practically unchanged from 1990. Moreover, during this period, price increases were larger for food away from home than for food at home.

Food spending by families and individuals accounted for 11.4 percent of total disposable personal income in 1992, slightly lower than in the previous year. This percentage has declined over the years because disposable personal income has risen more than have food expenditures. The 11.4-percent 1992 share of food spending compares with 11.9 percent in 1987 and 13 percent in 1982. The decline reflects the inelastic nature of the aggregate demand for food: as income rises, the proportion spent for food declines as the desire for nonfood items grows stronger compared with the desire for additional food.

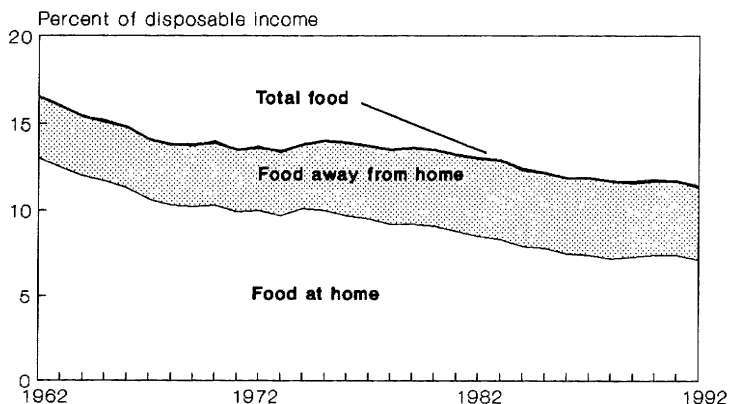
An annual consumer expenditure survey by the U.S. Department of Labor reveals comprehensive information about how much average households spend for food and other products and services. The findings for 1991 show that annual food expenditures averaged \$4,367 for all households, including single-person households.

Spending varies by households of differing size, income, and other characteristics. For example, married couples with children, where the oldest child is 6-17 years old, spent an average of \$6,241 for food in 1991, or about \$120 per week. Among major food categories, spending was highest for bakery products, beef, and dairy products.

The proportion of income spent for food varies widely by household income. For example, households with incomes of \$5,000-\$9,999, before taxes, spent 32.6 percent of their after-tax income for food. Households with before-tax incomes of \$15,000-\$19,999 spent 21 percent of their after-tax income for food. Households with incomes of \$30,000-\$39,999 spent 15.2 percent of after-tax income for food. The average for all households was 14.2 percent. This figure, based on the consumer survey data, is higher than the estimates using total food expenditures and disposable personal income. Some reasons for this are that households may not have fully accounted for income from all sources, household income does not include pension and welfare funds, such as insurance premiums paid by employers, and the reported income is capped to protect the privacy of some survey households. All these factors would cause an upward bias in the estimated percentage of income spent for food.

Share of income spent for food

Food spending by families and individuals has declined to 11.4 percent of disposable personal income in the last 30 years.



Income share spent for food

Food expenditures by families and individuals rose but continued their long-term decline as a share of income.

Year	Disposable personal income	Expenditures for food			Share of income		
		At home ¹	Away from home ²	Total ³	At home	Away from home	Total
-----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
1990	4,042.9	297.3	177.4	474.7	7.4	4.4	11.7
1991	4,209.6	309.5	182.4	491.9	7.4	4.3	11.7
1992	4,430.2	315.5	187.9	503.4	7.1	4.2	11.4

¹Food purchases from grocery stores and other retail outlets, including 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.

²Purchases of meals and snacks by families and individuals, and 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.

³Totals may not add due to rounding.

Average household food spending in 1991

Food expenditures increased as incomes rose, but incomes generally rose more rapidly than food spending, so the share of income spent for food declined.

Item	All households	Household income before taxes		
		\$5,000 to \$9,999	\$15,000 to \$19,999	\$30,000 to \$39,999
<i>Number</i>				
Average persons per household	2.6	1.8	2.4	2.8
<i>Dollars</i>				
Household income after taxes	30,729	7,432	16,524	31,430
Annual food expenditures	4,367	2,420	3,463	4,763
Food at home	2,725	1,851	2,379	2,959
Cereal products	149	106	140	157
Bakery products	265	174	235	297
Beef	238	176	194	260
Pork	147	117	142	153
Other meat	103	71	91	112
Poultry	124	88	95	119
Fish and seafood	81	54	68	83
Eggs	32	27	30	37
Fresh milk and cream	135	104	123	144
Other dairy products	172	98	150	188
Fresh fruit	132	89	116	140
Fresh vegetables	131	94	111	139
Processed fruit	99	64	87	108
Processed vegetables	75	55	64	85
Sugar and other sweets	105	76	96	120
Fats and oils	73	54	65	82
Miscellaneous food	431	253	363	475
Nonalcoholic beverages	233	151	209	260
Food away from home	1,642	569	1,084	1,804
<i>Percent</i>				
Share of income spent for food	14.2	32.6	21.0	15.2

Source: U.S. Department of Labor, Bureau of Labor Statistics, Office of Prices, Consumer Expenditures in 1991, December 1992.

Where Consumer Food Dollars Went

More than three-fourths of last year's retail expenditures for food that originated on U.S. farms consisted of marketing charges.

Food expenditures can be divided into farm value and the marketing bill, which consists of the total charges by marketing firms for food processing, wholesaling, transportation, and retailing. In 1992, the marketing bill was \$373 billion, \$6 billion more than in 1991. The marketing bill was 78 percent of the \$479 billion spent during 1992 for food that originated on U.S. farms. This expenditure figure includes food bought on business expense accounts, Government food donations, institutional feeding, and spending by families and individuals. About 22 percent, or \$106 billion, of last year's food spending represents the farm value farmers received for the commodities. This 22-percent farm value share is a weighted average of the 26-percent farm share of spending for food consumed at home and a much lower 15-percent farm share of spending for food consumed away from home.

Most of the \$6 billion increase in the marketing bill in 1992 can be traced to higher labor costs. Food packaging materials added another \$1 billion. Here is USDA's analysis of what happened to food industry costs and profits.

Labor. Total food industry labor costs were about \$168 billion in 1992, or about 35 percent of total consumer food spending. Labor costs rose about 4.3 percent last year, about the same as in 1991. The increase reflected a rise in industry employment and higher worker wages and benefits. Average weekly earnings of workers in food processing rose 2.9 percent in 1992, about 0.5 percentage point more than in 1991. Weekly earnings in food retailing advanced 3.7 percent, following practically no change in 1991. However, weekly earnings in wholesaling rose 3.6 percent in 1992, the same as the year before. Although employment declined in food processing and retailing in 1992, the rise in employment in eating places more than offset those declines to cause the slight increase in total number of workers employed. Labor agreements with workers that provide small wage increases, measures to contain costs of medical benefits, and rising labor productivity have all tempered labor costs for the food industry in recent years.

Packaging. Costs for food containers and packaging materials rose about 3 percent in 1992. Costs increased mainly because of increased use of shipping

boxes, food containers, and plastic materials. Actual prices of boxes and food containers themselves were slightly lower, but their added use drove packaging costs up. At \$39 billion, packaging costs accounted for about 8 percent of total 1992 consumer expenditures for farm food.

Transportation. Costs of transporting food intercity by truck and railroad were nearly \$21 billion in 1992, or 4.5 percent of consumer food expenditures. Railroad freight rates for hauling food products rose only about 1 percent. Deregulation kept truck rates stable for most of the 1980's, but steadily rising wages and other costs probably increased truck rates for hauling produce and other food last year.

Energy. The energy bill for marketing food from U.S. farms was \$17 billion in 1992, 3.5 percent of consumer expenditures for farm foods. Natural gas and petroleum prices declined slightly, but electric rates rose about 1 percent, boosting the energy costs of food processing and distribution.

Marketing bill versus farm value

The 1992 marketing bill is more than triple the farm value of food expenditures.

Year	Food expenditures ¹	Marketing bill	Farm value	Farm value
				share of expenditures ²
-----Billion dollars-----			Percent	
1970	110.6	75.1	35.5	32
1975	167.0	111.4	55.6	33
1980	264.4	182.7	81.7	31
1985	345.4	259.0	86.4	25
1987	375.5	285.1	90.4	24
1988	398.8	301.9	96.8	24
1989	419.4	315.6	103.8	25
1990	449.8	343.6	106.2	24
1991	468.5	367.0	101.5	22
1992	478.8	373.2	105.6	22

¹Includes foods bought on business expense accounts, Government donations, institutional feeding, and spending by consumers at grocery stores and eating places.

²Includes spending for food away from home and, thus, is lower than the share for the market basket.

Food Industry Profits Lower

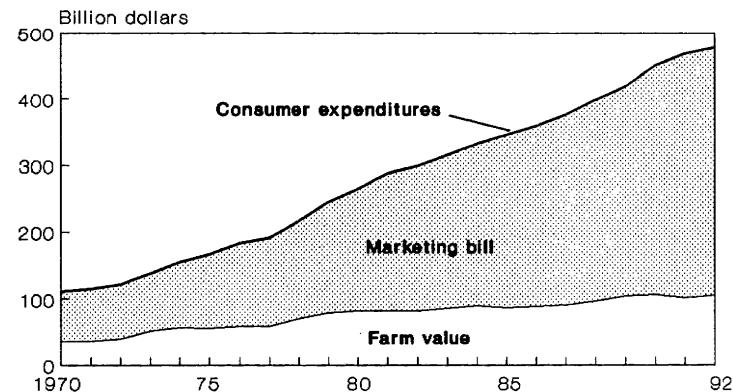
Dollar profits in the food industry were lower in 1992. Although food sales were generally higher, a decline in profit margins in food manufacturing and retailing held down profits. Before-tax food industry profits from marketing foods of domestic origin were slightly more than \$15 billion, or about 3.5 percent of consumer spending for farm foods.

Aftertax profits of 45 leading food product manufacturers were 4.2 percent of sales in the first 9 months of 1992, down from 4.8 percent in 1991. This drop reflects a decrease in net income (3 percent) but an increase in sales (9 percent). Lower profits by several large companies pulled down total income for the group. Profit margins were larger for most manufacturers due to modest price increases, declining raw material costs, and moderate increases in production and marketing costs, particularly advertising. Food manufacturers have been able to hold down costs with labor productivity gains averaging from 1 to 4 percent in recent years for major industries, including poultry processing and grain milling.

With food prices and sales sagging because of the weak economy, profit margins for the retail sector of the food industry fell sharply. Aftertax profits of 41 food chains averaged 0.83 percent of sales in the first 9 months of 1992, compared with 1.18 percent a year earlier. Returns on stockholder equity also declined, due partly to a large increase in equity. In 1990, the return on equity rose to the highest level ever, caused largely by a widespread shift from equity financing to debt financing in the previous 2 years that decreased the denominator of the profit to equity ratio. The industry has recovered somewhat from the high debt and large interest payments that squeezed profit margins in the late 1980's, and stockholder equity has risen. Profit margins of most major food chains were squeezed in 1992, mainly because of changes in consumer buying habits and increased price competition among supermarkets as sales lagged. But retailers last year continued to make greater use of technology, including scanning, satellite communications, and more sophisticated merchandising and labor scheduling systems to control labor costs, their largest operating expense.

Distribution of food expenditures

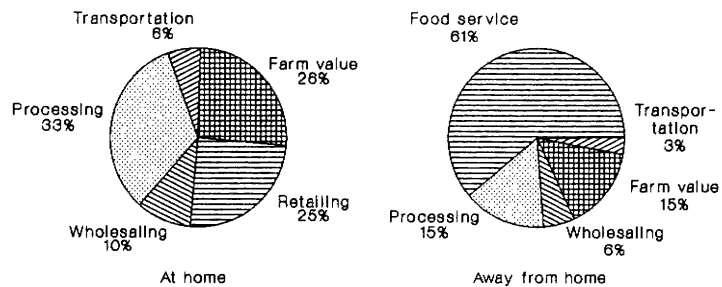
Marketing bill was 78 percent of 1992 food expenditures.



Data for foods of U.S. farm origin purchased by or for consumers for consumption both at home and away from home.

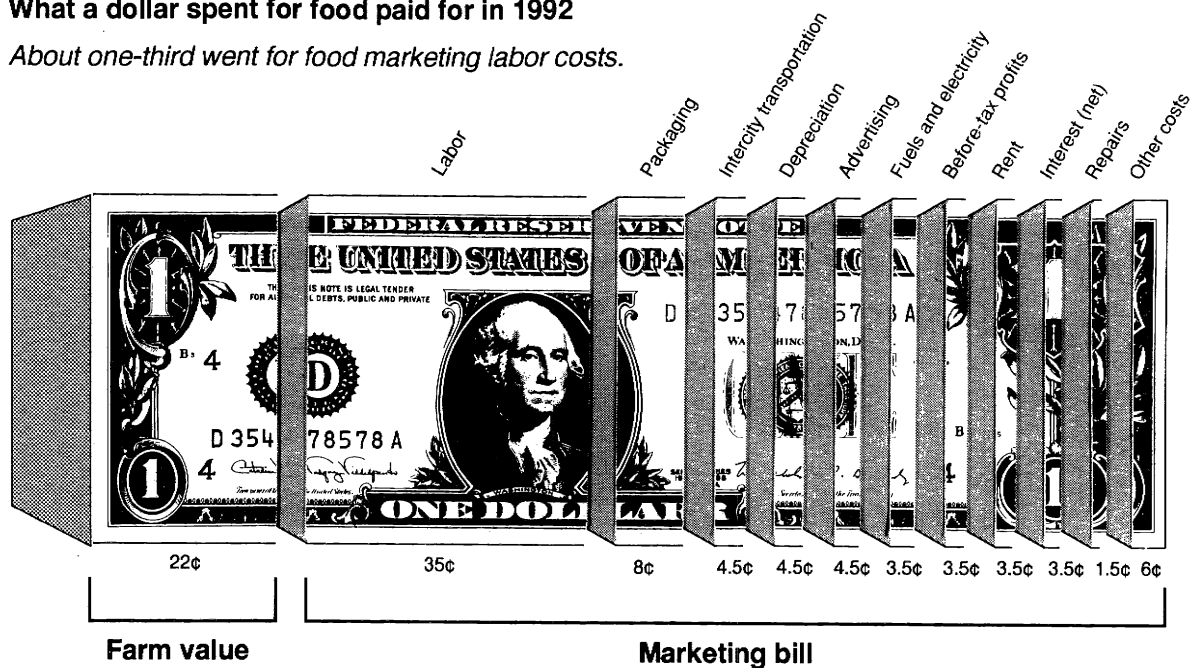
Marketing functions of the food dollar in 1992

Processing costs remained the largest marketing function for food eaten at home.



What a dollar spent for food paid for in 1992

About one-third went for food marketing labor costs.



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

Would You Like More Information?

This report summarizes a more detailed report, *Food Cost Review, 1992*, to be published in the summer. In addition to reporting on recent developments in food prices, farm-to-retail price spreads, food spending, profits, and marketing costs in the food industry, the full report discusses price-spread changes for leading food items, such as Choice beef, milk, and bread. It also includes statistical tables and charts.

To receive ordering information when the report is issued, send your name and address to the Commodity Economics Division, Room 1137, Economic Research Service, USDA, 1301 New York Avenue, NW., Washington, DC 20005-4788. Call Denis Dunham at 1-202-219-0870 for information.

Sales Information

Purchase copies of this summary (\$6.00 each) from ERS-NASS, 341 Victory Drive, Herndon, VA 22070. Ask for *Food Costs...From Farm to Retail in 1992*, AIB-669. Or call, toll free, the ERS-NASS order desk at 1-800-999-6779 (8:30-5:00 ET) in the United States or Canada. All other areas, please dial 1-703-834-0125. You may charge your purchase by telephone to VISA or MasterCard, or we can bill you. Foreign customers (including Canadians), please add 25 percent for postage.

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 1301 New York Avenue, NW.
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