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Where the Food Dollar Goes

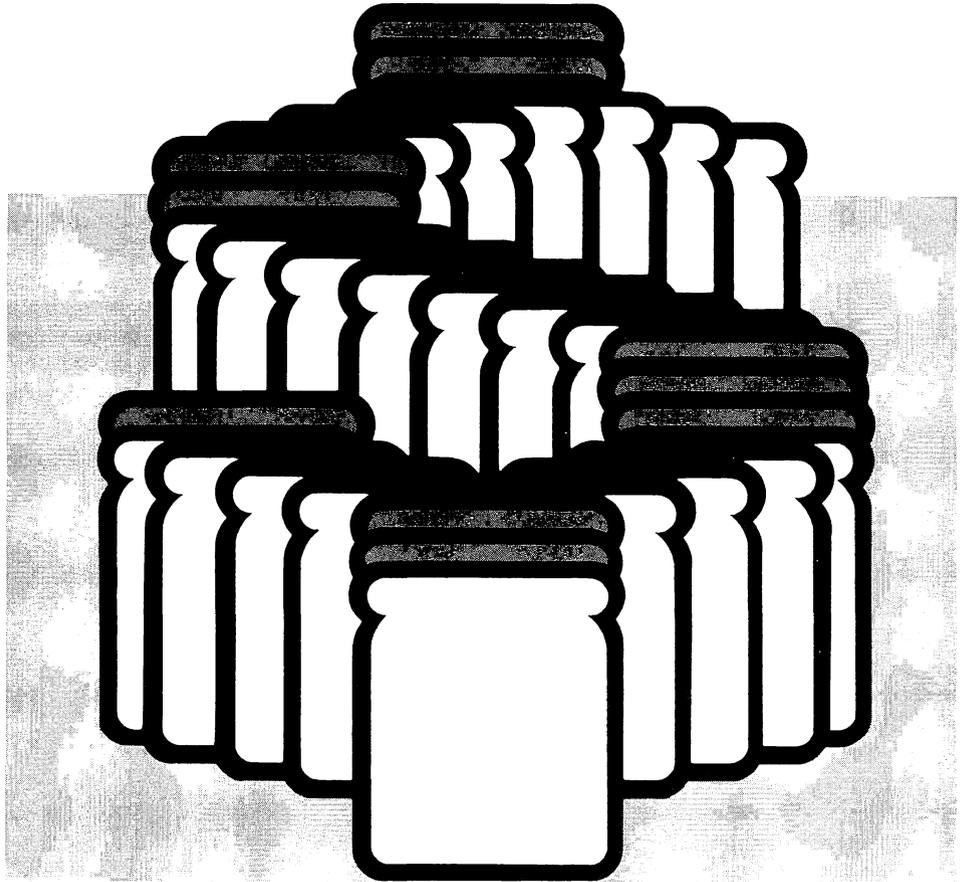
Harry Harp
(202) 447-8801

Last year, Americans spent an average of about \$1 out of every \$6 of after-tax income on food—nearly \$1,500 per person—to cover the farm value and charges added by firms that manufacture, ship, and sell finished foods.

Total 1982 retail expenditures for foods produced on U.S. farms, which excludes imported foods and fishery products, were \$298 billion (table 1). The food dollar can be divided between the farm value (payments to farmers) and the marketing bill which reflects the costs of processing agricultural commodities into food and bringing them from the farm to consumers. Payments to farmers were \$84 billion in 1982, or 28 cents of the food dollar, while \$214 billion, or 72 cents of the food dollar, went to cover the marketing bill. In recent years, marketing costs have increased faster than prices received by farmers, causing the farm value share of food expenditures to decline and the marketing share to rise. In 1979, the marketing bill accounted for 67 cents of the food dollar, and the farm value 33 cents.

The farm value's share of food expenditures varies greatly among foods, depending on the inputs used to make them and the complexities of the marketing process. In general, animal products have the highest ratios of farm value to retail price; the more highly processed crop products have the lowest. For instance, the farm value represents 50 to 60 percent of retail prices for meats, dairy products, and poultry and eggs. In contrast, the farm value accounts for only about 20 percent of retail prices for processed fruits and vegetables, and 14 percent of the price of bakery and cereal products.

The marketing bill for foods purchased in grocery stores is the total cost of the four broad functions that the food industry performs—processing, transporting, wholesaling, and retailing. In 1982, it accounted for 66 percent of at-home food expenditures, and the farm value accounted for the remaining 34 percent. But, owing to the added costs of preparing and serving food consumed in restaurants and other eating places, the market-



ing bill for away-from-home food accounted for 83 percent of expenditures, and the farm value 17 percent.

Individual marketing costs also differ for foods bought in stores and restaurants. For example, 30 cents of each dollar spent for food in stores paid for processing, another 9 cents were spent for wholesaling, and 6 cents for intercity transportation (fig. 1). Retailing charges added the last 21 cents. These shares have been relatively constant over the years, because costs of each function have risen at roughly similar rates. For a dollar spent for food away from home, processing costs accounted for 18 cents, transportation charges for 3 cents, and wholesaling for 6 cents, leaving 56 cents for preparation and serving (fig. 2).

Marketing Components

The \$214 billion paid to food marketers by consumers in 1982 went to pay all costs of doing business. Labor, packaging, and transportation costs represent 45 percent of the total food dollar (table 2).

Labor costs. Direct labor costs accounted for 32 percent of the food dollar in

1982. Wages and benefits are paid to over 7 million workers, including employees of processing plants, warehouse employees, clerks in food stores, meatcutters, and foodservice workers.

Costs of employee benefits, such as health insurance and retirement funds, have increased faster than wages over the years and now account for 19 percent of the labor component of the marketing bill. Over the past decade, hourly earnings of employees in food processing and marketing establishments have risen at an average annual rate of 8.4 percent a year. This increase closely approximates increases in earnings for the nonagricultural sector of the economy. Rising labor costs affected food expenditures less severely in 1982. Hourly earnings of food industry workers rose 6.2 percent.

Labor costs' proportion of the food dollar has increased since 1972, from 30 to 31 percent, mainly because more workers are employed in restaurant food service. In addition, productivity (the volume of output from an hour of labor) declined in food retailing and eating places over the past decade. Thus, increases in workers' wages resulted in higher unit labor costs.

However, productivity in food processing has risen at a steady annual rate of 2 percent, partially offsetting rising wages of these workers. These increases resulted primarily from the substitution of capital for labor as a consequence of new technology. Improvements in productivity have been achieved by large expenditures for new plants and equipment. For example, capital expenditures by firms manufacturing food and kindred products increased from \$2.6 billion in 1972 to \$8.3 billion in 1981, but slowed to about \$8 billion in 1982.

Rising prices of new plants and equipment doubled over the last decade, eroding some of the cost saving of substituting capital for labor. Higher interest rates charged to businesses have also added to these costs.

At present, Government and private industry are studying additional opportunities for improving productivity in food distribution, such as modernizing wholesaling facilities, and replacing cash registers with computer scanning equipment that automatically reorders stocks. Such equipment is now being used in about 20 percent of all supermarkets. The adoption of these innovations will require time and large capital expenditures.

Packaging costs. Packaging materials represented the second largest marketing cost in 1982, accounting for 8 percent of the total food dollar. Packaging costs included metal cans, glass and plastic bottles, and other containers for food products and the boxes and other materials used for shipping food products. Food processors were the largest users of packaging materials, accounting for over four-fifths of the total used by all food marketing firms.

Costs of food packaging materials rose sharply in the 1970's, reflecting rising production and material costs, particularly for petroleum. Packaging costs declined 2 percent in 1982, because of excessive production of most containers and paper materials, and weak demand for packaging products in nonfood industries due to the recession.

Table 1. Food Expenditures, Marketing Bill, and Farm Value: At-Home and Away-From-Home Markets

	Total expenditures	Food at home ¹	Food away from home
	Sbillions		
Food expenditures²			
1972	122.2	85.6	36.6
1978	216.0	150.5	65.5
1979	241.2	170.7	70.4
1980	260.8	179.5	81.3
1981	284.5	193.8	90.7
1982	297.6	201.1	96.5
Marketing bill			
1972	82.4	53.2	29.2
1978	147.1	94.2	52.9
1979	162.8	106.0	56.8
1980	179.7	113.5	66.2
1981	202.1	127.1	74.9
1982	214.1	133.6	80.5
Farm value			
1972	39.8	32.4	7.4
1978	68.9	56.3	12.6
1979	78.4	64.7	13.7
1980	81.1	66.0	15.1
1981	82.4	66.6	15.8
1982	83.5	67.5	16.0

¹Primarily purchased from retail food stores for use at home.

²Consumer expenditures for domestically produced farm foods.

Table 2. Components of the Food Marketing Bill

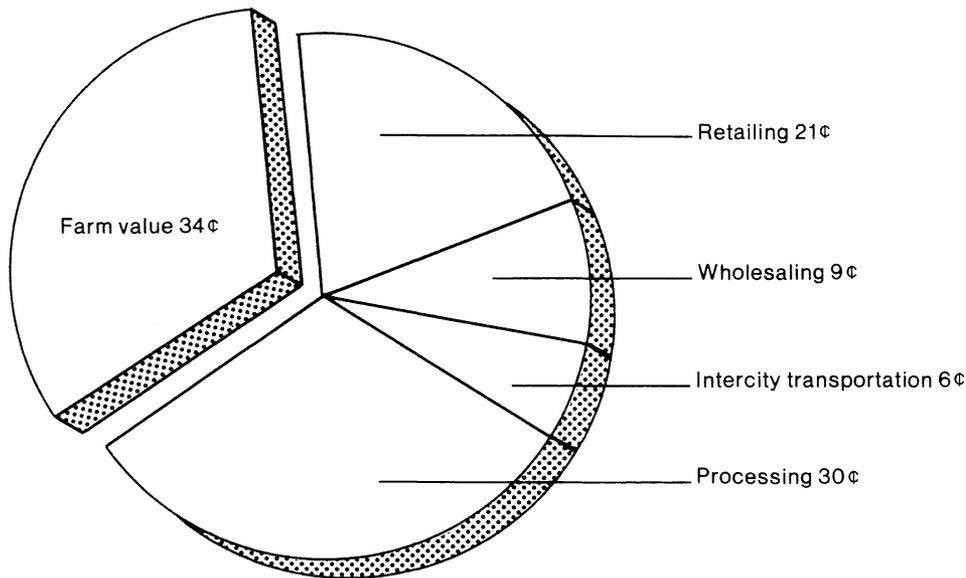
	1972	1978	1979	1980	1981	1982
	\$ billions					
Total marketing bill	82.4	147.1	162.8	179.7	202.1	214.1
Labor ¹	36.6	66.0	73.8	80.7	90.7	95.5
Packaging	8.9	16.5	18.4	21.1	22.9	23.6
Transportation ² (rail and truck)	6.1	10.5	11.6	12.7	14.1	14.7
Fuel and power	2.5	6.3	7.6	9.0	10.9	11.7
Corporate profits (before taxes)	4.0	9.2	9.9	11.0	12.0	13.1
Other ³	24.3	38.6	41.5	45.2	51.5	55.5

¹Includes supplements to wages and salaries, such as pensions and health insurance premiums. Also includes imputed earnings of proprietors, partners, and family workers not receiving stated remuneration.

²Does not include local hauling charges.

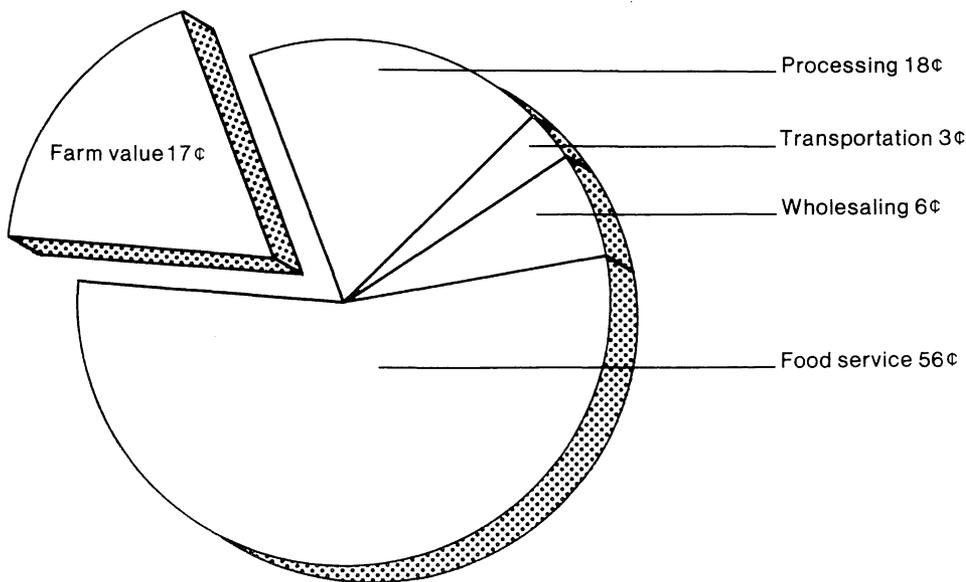
³Includes business taxes, depreciation, rent, advertising, interest, and numerous other costs.

Figure 1. Components of the Food Dollar Spent for At Home Consumption



Based on 1982 data.

Figure 2. Components of the Food Dollar Spent for Away From Home Consumption



Based on 1982 data.

Transportation costs. Shipping food by rail and truck took 5 percent of the food dollar in 1982. This did not include intracity truck transportation or water and air transportation. Transportation costs rose sharply from the early 1970's through 1981 as a result of high fuel prices and rising labor costs. Transportation costs rose little in 1982, partly as a result of lower diesel fuel prices and rate-cutting among truckers and railroads to prevent loss of business as industrial production slowed because of the recession.

Corporate profits. Higher food prices are sometimes attributed to growth in profits. Total profits have increased over the years as the volume of sales has grown. Yet, higher food prices have been caused more by increased costs than by higher profits. Corporate profits (before taxes) of retailers, wholesalers, and processors combined now account for about 4 percent of the food dollar, up from 3 percent in 1972.

Energy costs. Direct energy costs for food marketing firms, excluding transportation, amounted to nearly \$12 billion in 1982, accounting for almost 4 percent of the food dollar. Energy has been increasing as a proportion of the food dollar since the early 1970's. Since 1973, when fuel prices doubled, energy costs have been rising almost 15 percent a year—about double the rate of increase for other marketing costs. In 1982, energy costs rose 4.7 percent, the smallest increase in the last decade. Most of this slowdown reflects a 5-percent decline in diesel and fuel oil prices. Demand has been down, reflecting slow economic growth and continued price-induced conservation efforts. Additionally, petroleum product inventories have been reduced, in part due to continued high interest costs.

In contrast, coal prices have risen at a faster rate than a year ago. This reflects higher mining costs and larger export demand for coal as an alternative to petroleum products. Higher coal prices