1. U.S. Agriculture—Linking Consumers and Producers

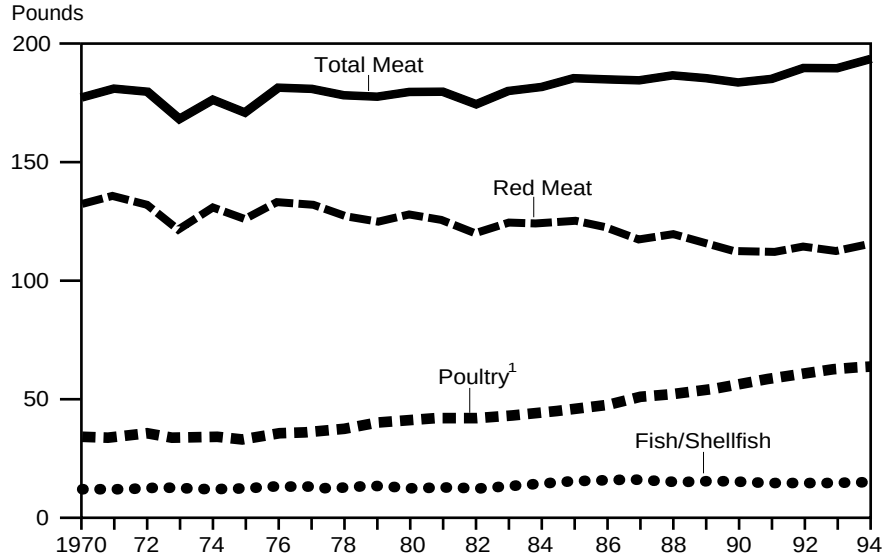
What Do Americans Eat?

Americans are slowly, with fits and starts, shifting their eating patterns toward more healthful diets. They are eating more low-fat and nonfat products, and leaner cuts of meat. However, this trend has been undermined by a growing preference for high-fat convenience foods, fast foods, and snacks. More Americans eat out, eat on the run, and eat more often than ever before. In the process, some have unwittingly increased their consumption of added fats, oils, and sugars.

A considerable gap still remains between public health recommendations and consumer practices. Between 1977-78 and 1989-91, according to USDA surveys, the average intake of fat declined from 40 percent of total energy (calories) to 34 percent, still well above the 30-percent maximum recommended. Average carbohydrate

Figure 1-1.

Per capita consumption of meat, poultry, and fish, boneless, trimmed equivalent



[1]Includes skin, neck meat and giblets

Table 1-1.

Major foods: U.S. per capita consumption

Food	*1970*	*1980*	*1993*
		Pounds	
Red meat[1]	131.7	126.4	112.1
Chicken and turkey [1]	33.8	40.8	62.6
Fish and shellfish[1]	11.7	12.4	14.9
Eggs	39.5	34.8	30.3
Cheese [2]	11.4	17.5	26.3
Ice cream	17.8	17.5	16.1
Fluid cream products	5.2	5.6	8.0
All dairy products [3]	563.8	543.2	574.1
Fats and oils	52.6	57.2	65.0
Animal	14.1	12.3	10.1
Vegetable	38.5	44.8	54.9
Peanuts and tree nuts [4]	7.2	6.6	8.3
Fruits and vegetables [5]	565.6	594.6	674.6
Fruits	230.0	258.1	278.0
Vegetables	335.6	336.6	396.6
Caloric sweeteners [6]	122.3	123.0	144.4
Refined sugar (sucrose)	101.8	83.6	64.3
Corn Sweeteners	19.1	38.2	78.7
Other	1.5	1.2	1.4
Flour and cereal products [7]	135.3	144.6	193.1
Wheat flour	110.9	116.9	139.4
Rice	6.7	9.4	17.5
Corn products	11.1	12.9	22.1
Oat products	4.4	3.7	8.6
Rye and barley	2.2	1.8	1.5
Cocoa (chocolate liquor equivalent) [8]	3.1	2.7	4.6
		Gallons	
Beverage milks	31.3	27.6	24.9
Whole	25.5	17.0	9.4
Lowfat and skim	5.8	10.5	15.5
Coffee	33.4	26.7	26.0
Tea	6.8	7.3	7.1
Soft drinks	24.3	35.1	46.6
Fruit juices	NA	7.2	8.4
Bottled water	NA	2.4	9.2
Beer	18.5	24.3	22.6
Wine	1.3	2.1	1.7
Distilled spirits	1.8	2.0	1.3

NA = Not available.

[1]Boneless, trimmed equivalent. [2]Excludes full-skim American, cottage, pot, and baker's cheese. [3]Milk equivalent, milkfat basis.[4]Shelled basis [5]Farmgate weight. [6]Dry basis. [7]Consumption of items at the processing level (excludes quantities used in alcoholic beverages and corn sweeteners). [8]What remains after cocoa beans have been roasted and hulled.

intake increased between the two survey periods from 43 percent of total calories to 49 percent, still well below the 55- to 60-percent minimum recommended by a variety of sources, including the American Cancer Society and the American Heart Association.

While Americans are eating more grains, especially in mixtures, they still are not eating the amounts of high-fiber foods—including whole-grain products, legumes, vegetables, and fruit—recommended in the latest dietary guidelines. And, Americans are eating more foods that contain large amounts of refined sugars.

Increasing supplies of beef and declining retail beef prices spurred a 1-pound increase in per capita consumption of beef in 1994, the first increase in 10 years, but long-term consumption trends for beef and for total red meat remain down. Red meat accounted for 59 percent of the total meat supply in 1994, compared with 70 percent in 1980 and 74 percent in 1970. By 1994, chicken and turkey accounted for 33 percent of the total meat consumed, up from 23 percent in 1980 and 19 percent in 1970. In 1994, per capita consumption averaged 17 pounds less red meat, 30 pounds more poultry, and 3 pounds more fish and shellfish than in 1970. Retail cuts of beef and pork and many processed meat products are significantly leaner than a decade ago. Despite a trend toward use of leaner meats, per capita consumption of total meat reached an all-time high in 1994 and is expected to rise again in 1995.

U.S. per capita egg consumption has declined steadily since an all-time high of 403 eggs in 1945. Between 1970 and 1994, total annual per capita egg consumption decreased from 309 to 238 eggs, while consumption of processed eggs rose from 33 to 61 eggs. Egg product use changed little during the 1960's and climbed only slowly during the 1970's. Since 1983, however, it has jumped 73 percent, reflecting

Figure 1-2.

Per capita consumption of eggs

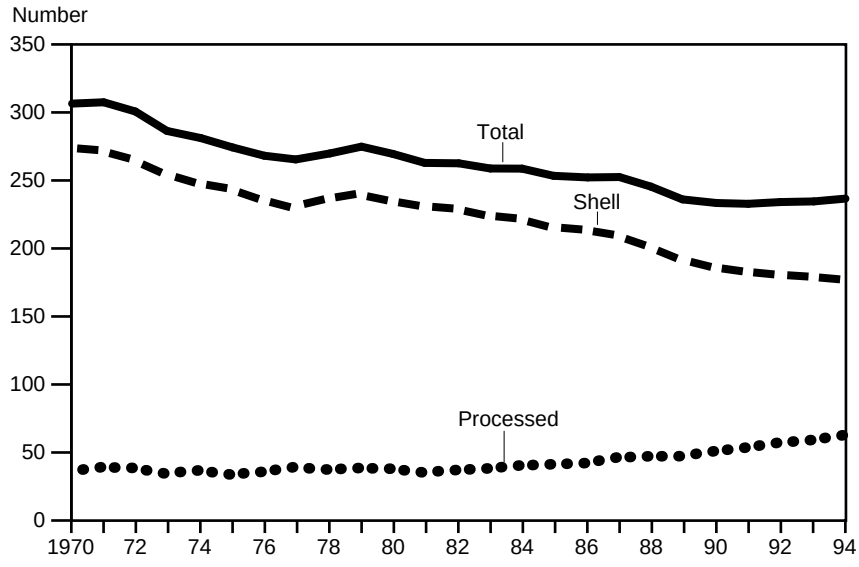


Figure 1-3.

Per capita consumption of plain fluid milk

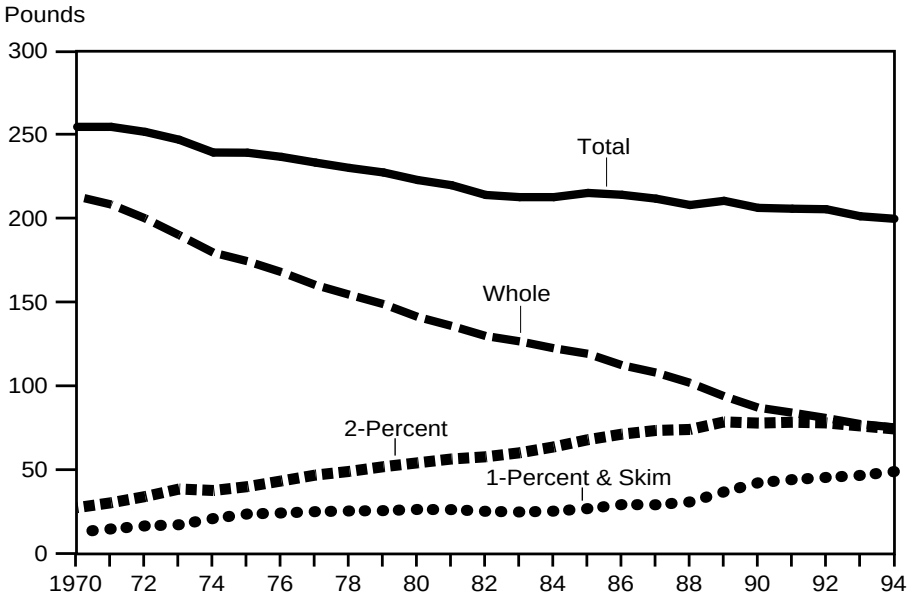
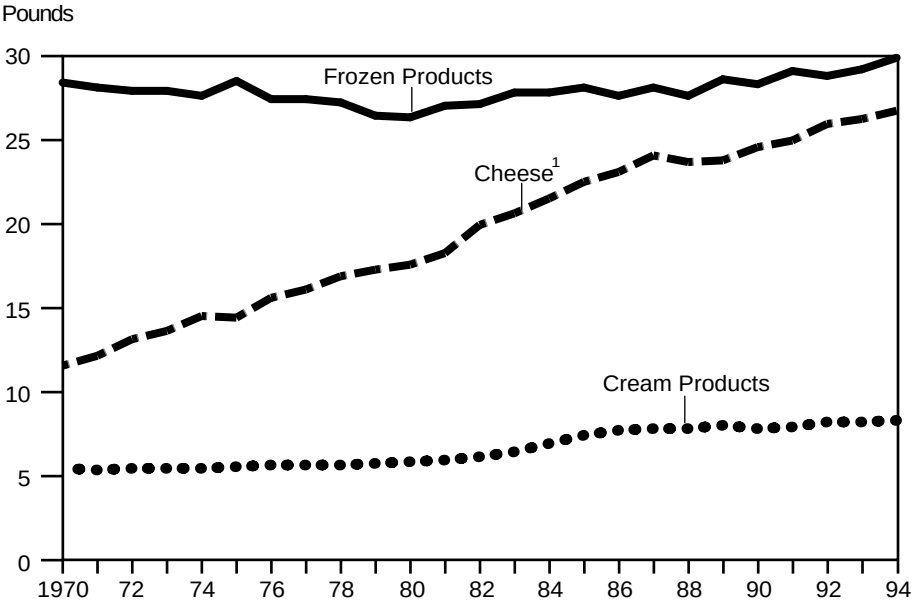


Figure 1-4.

Per capita consumption of selected dairy products



[1]Excludes full-skim American and cottage, pot, and baker's cheese

expanded use of eggs as manufacturing ingredients in a number of food products (such as pasta and sweet baked goods) and increased use in fast food outlets and other food service establishments. As with red meat, some people correlate the decline in shell egg use with concern about cholesterol. The home-cooked egg-and-bacon breakfast has given way to ready-to-eat, "instant" grain-based products and processed egg products.

The beverage milk trend is toward lower fat milk. Between 1980 and 1994, Americans cut their average annual consumption of fluid whole milk by nearly half, increased use of low-fat milk by two-fifths, and more than doubled consumption of skim milk. But the Nation failed to cut its overall use of milkfat because of growing demand for cheese. Per capita use of cheese has increased 53 percent since 1980 to 27 pounds in 1994.

Americans consumed 12 pounds more fats and oils per person (on a fat-content basis) in 1993 than in 1970. A 43-percent increase in use of vegetable fats and oils (mainly salad and cooking oils and shortening) more than offset a 28-percent decrease in use of animal fats (lard and butter). In 1993, animal fat constituted 16 percent of total fat consumption from added fats and oils, compared with 27 percent in 1970. The switch to vegetable fats and oils reflects increased consumer emphasis on unsaturated fats and oils. The increase in total fats and oils probably results from the greatly expanded consumption of fried foods in food service outlets and the increased use of salad oils on salads consumed both at home and away from home.

In 1993, Americans consumed, on average, 675 pounds (farmgate weight) of commercially produced fruits (excluding wine grapes) and vegetables, 13 percent more than in 1980 and 19 percent more than in 1970. Since 1980, vegetables accounted for most of the increase. Consumers bought more fresh produce, frozen and dried fruit and vegetables, fruit juices, and canned tomato products, and less canned fruit and canned vegetables other than tomatoes.

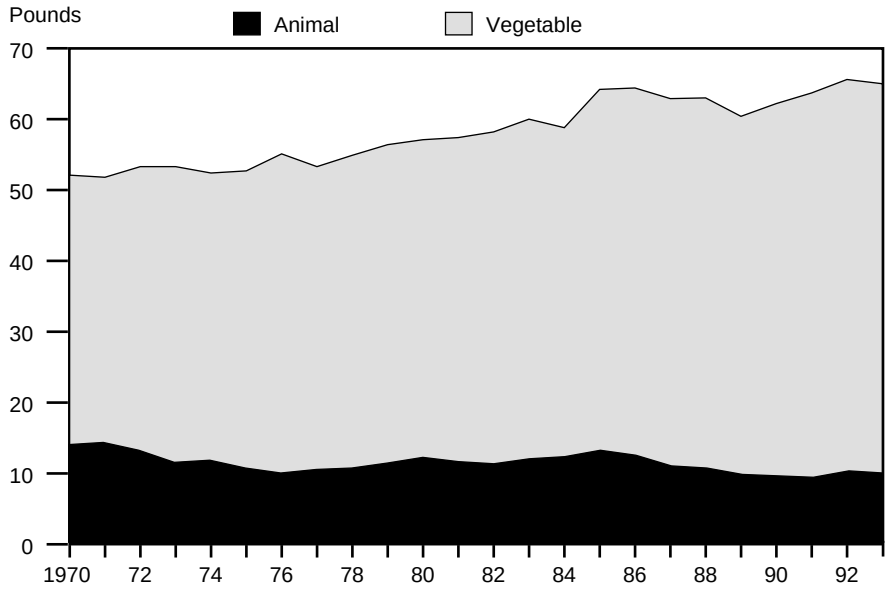
Consumption of grain products has risen in recent years but remains well below consumption levels in the early part of the century. In 1993, per capita use of flour and cereal products was 193 pounds per year, 49 pounds above the 1980 level but more than 100 pounds below the 1909 level. The recent expansion in supplies reflects ample grain stocks and strong consumer demand. Much of this growth was product-driven, as (1) consumers gained appreciation for variety bread, (2) fast-food sales of hamburgers and other products made with buns expanded rapidly, and (3) in-store bakeries and baking spurred sales.

Americans have become conspicuous consumers of sugar and sweet-tasting foods and beverages. Total per capita use of caloric sweeteners—comprised mainly of sucrose (table sugar made from cane and beets) and corn sweeteners (notably high-fructose corn syrup, called HFCS)—rose 20 percent between 1980 and 1994. In 1994, Americans consumed, on average, a record 148 pounds of caloric sweeteners (dry-weight basis), compared with 123 pounds in 1980 and 122 pounds in 1970. That is more than one-third of a pound of added sugars a day for each American.

A striking change in the availability of specific sugars has occurred in the past decade. Sucrose accounted for 44 percent of the total caloric sweetener supply in 1994, on a dry-weight basis, compared with 68 percent in 1980. By 1994, corn sweeteners accounted for 55 percent of the total caloric sweeteners consumed, up from 31

Figure 1-5.

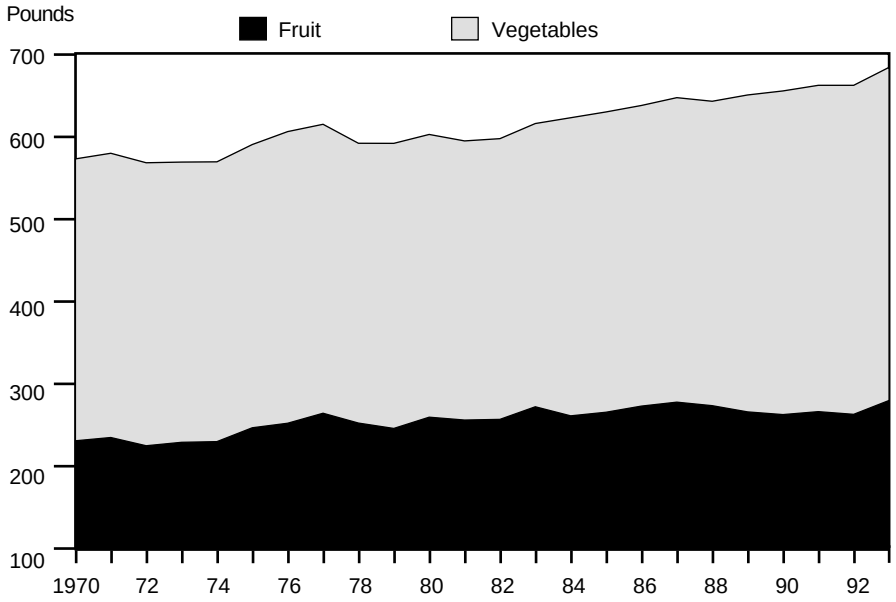
Per capita consumption of food fats and oils[1]



[1]Fat content basis. Includes butter, margarine, direct use of lard and edible tallow, shortening, salad and cooking oils, and other fats.

Figure 1-6.

Per capita consumption of fruits and vegetables[1]



[1]Farm-weight equivalent.

percent in 1980. All other caloric sweeteners, including honey, maple syrup, and molasses, maintained a 1-percent share. In 1993, beverages accounted for 72 percent of total HFCS deliveries for domestic food and beverage use. Corn sweeteners became economical as a result of abundant corn supplies and low corn prices. Moreover, sales of byproducts—corn oil and corn gluten feed and meal—made corn sweetener production even less expensive. At the same time, Federal sugar programs maintained high support prices and import quotas on sucrose. Total corn sweetener use surpassed cane and beet sugar use for the first time in 1985.

USDA's Economic Research Service annually calculates the amount of food available for human consumption in the United States. The U.S. food supply historical series measures national aggregate consumption of several hundred foods. It is the only source of time series data on food and nutrient availability in the country.

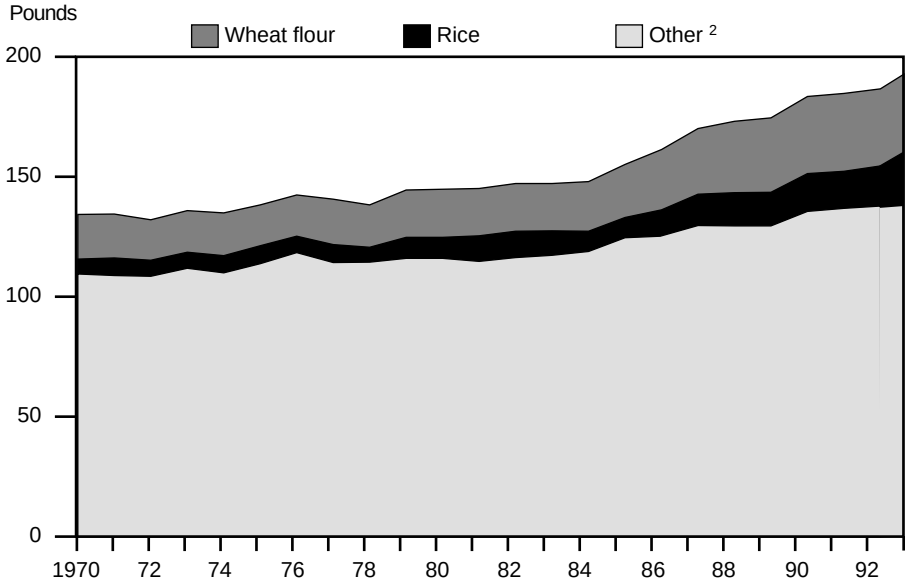
Cost of Food Services and Distribution

The estimated bill for marketing domestic farm foods—which does not include imported foods—was $401 billion in 1994. This covered all charges for transporting, processing, and distributing foods that originated on U.S. farms. It represented 79 percent of the $511 billion consumers spent for these foods. The remaining 21 percent, or $110 billion, represents the gross return paid to farmers.

The cost of marketing farm foods has increased considerably over the years, mainly because of rising costs of labor, transportation, food packaging materials, and

Figure 1-7.

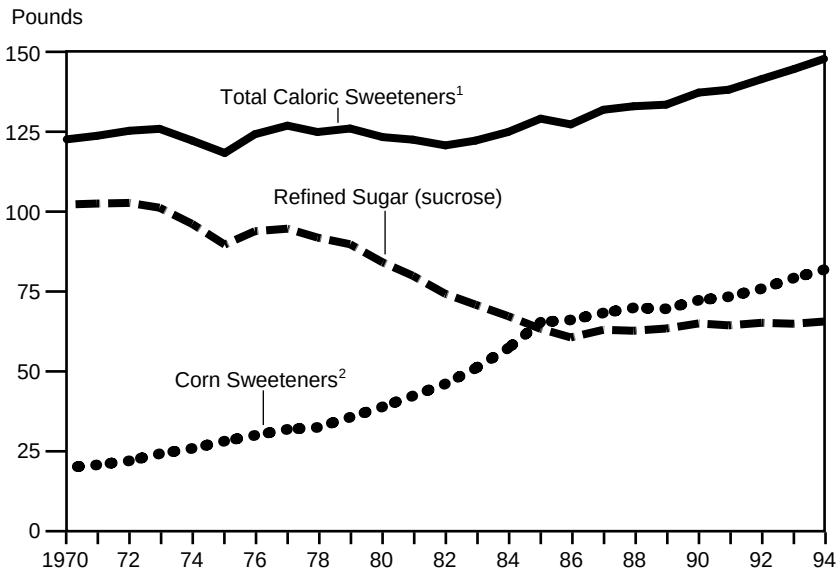
Per capita consumption of grain products[1]



[1]Excludes quantities used in alcoholic beverages, fuel, and corn sweeteners. [2]Corn, oats, barley, and rye.

Figure 1-8.

Per capita consumption of caloric sweeteners



[1]Includes small quantities of honey, and molasses and other refiner's syrups. [2]Dry basis

other inputs used in marketing, and also because of the growing volume of food and the increase in services provided with the food.

In 1984, the cost of marketing farm foods amounted to $242 billion. In the decade after that, the cost of marketing rose about 66 percent. In 1994, the marketing bill rose 5.6 percent.

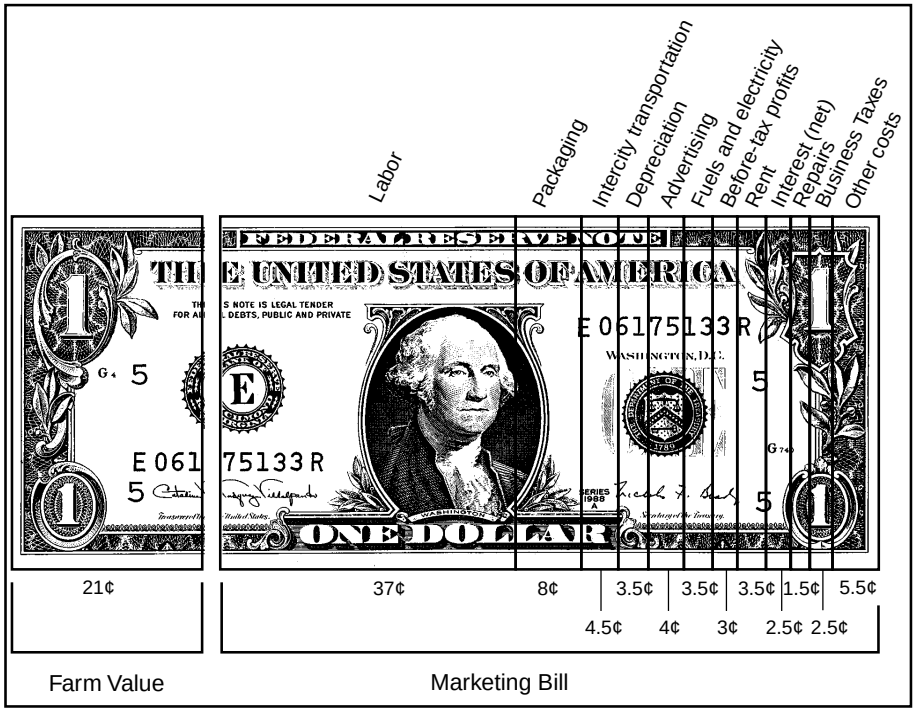
These rising costs have been the principal factor affecting the rise in consumer food expenditures. From 1984 to 1994, consumer expenditures for farm foods rose $179 billion. Nearly 90 percent of this increase resulted from an increase in the marketing bill.

The cost of labor is the biggest part of the total food marketing bill. Labor used by assemblers, manufacturers, wholesalers, retailers, and eating places cost $189 billion in 1994. This was 6 percent more than in 1993 and 73 percent more than in 1984. The total number of food marketing workers in 1994 was about 12.8 million, about 24 percent more than a decade ago. The growth in employment occurred mostly in food stores and public eating places.

Packaging is the second-largest component of the marketing bill, accounting for 8 cents of the food dollar. Costs of these materials increased nearly 7 percent in 1994. Packaging costs rose due to increased use of shipping boxes, food containers, and plastic materials. Actual prices of boxes and food containers were also higher, further driving packaging costs up. Most other marketing costs—such as transportation and energy—rose at a faster pace than in 1993.

Figure 1-9.

What a dollar spent on food paid for in 1994



Food Expenditures and Prices

Total food expenditures, which include imports, fishery products, and food originating on farms, were $617.1 billion in 1993, an increase of 3.7 percent over these expenditures in 1992. The average was $2,393 per capita, 2.5 percent above the 1992 average.

Away-from-home meals and snacks captured 46 percent of the U.S. food dollar in 1993, up from 41 percent in 1983 and 35 percent in 1973.

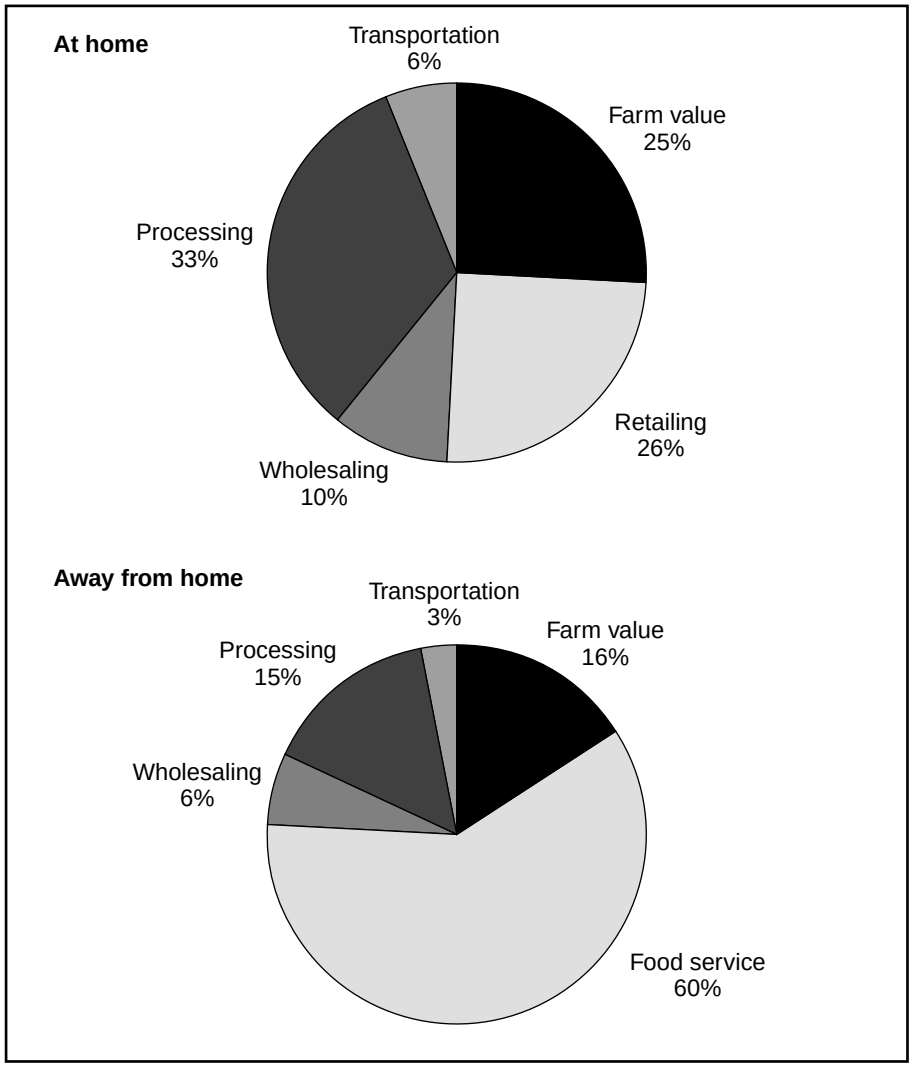
The percentage of disposable personal income (income after taxes) that U.S. consumers spend on food continues to decline. From 1993 to 1994, disposable personal income increased 5.8 percent while food expenditures rose only 4.0 percent. U.S. consumers in 1994 spent 11.1 percent of their disposable personal income on food, compared to 11.8 percent in 1990, 13.5 percent in 1980, and 13.9 percent in 1970.

In the United States, total retail food prices (including meals served in restaurants) rose 39.8 percent over the last 10 years (1984-94). Prices of food eaten away from home increased 39.8 percent, while retail foodstore prices increased 40.2 percent.

Figure 1-10.

Marketing functions of the food dollar in 1994

Processing remained the most expensive marketing function for food eaten at home.



Prices of goods and services, excluding food, in the Consumer Price Index climbed 43.3 percent over the same 10 years. Transportation was up 29.5 percent; housing 39.8 percent; medical care 97.6 percent; and apparel and upkeep 30.7 percent.

Farm-Retail Price Spread

Food prices include payments for both the raw farm product and marketing services. In 1994, the farm value, or payment for the raw product, averaged 24 percent of the retail cost of a market basket of U.S. farm foods sold in foodstores. The other 76 percent, the farm-retail price spread, consisted of all processing, transportation, wholesaling, and retailing charges incurred after farm products leave the farm.

Farm-retail spreads have increased every year for the past 10 years, largely reflecting rising costs of labor, packaging, and other processing and marketing inputs. In 1994, farm-retail spreads rose 4.4 percent and farmers received 3.3 percent less for the food they produced. The result of retail food price increases and farm value decreases has been a decline in the farm share. Widening farm-retail spreads continued to push up food costs in 1994. The farm value is expected to continue to decline slightly in 1995.

The percentage of the retail price accounted for by the farm value varies widely among foods, reflecting differences in production and marketing processes. Generally, it is larger for animal products than for crop-based foods, and smaller for foods that require considerable processing and packaging. In 1994, however, there was little difference in the farm value percentages for fresh and processed produce. The combination of reduced fresh produce prices at the farm and higher retail prices account for this unusual result.

Table 1-2.

Farm value as a percentage of retail price for domestically produced foods, 1984 and 1994

Items	*1984*	*1994*
Livestock products:		
Meats	50	36
Dairy	47	34
Poultry	56	43
Eggs	65	47
Crop products:		
Cereal and bakery	12	8
Fresh fruits	34	18
Fresh vegetables	34	23
Processed fruits and vegetables	24	20
Fats and oils	31	25
Market basket, average	35	24