

Current Report

Cooperative Extension Service • Division of Agricultural Sciences and Natural Resources
Oklahoma State University

Trends in U.S. Dairy Product Consumption

Derrell S. Peel
Extension Economist

Consumption patterns for dairy products have changed dramatically in the United States in the last 20 years. This current report discusses changing patterns of dairy product consumption and their implications on the dairy industry.

On a per capita basis, total consumption of milk and dairy products was relatively constant throughout the 1970s. However, increased milk production in the early 1980s resulted in increases of milk and dairy product consumption from about 550 pounds per person up to about 600 pounds per person (Figure 1). After 1987, per capita consumption declined to about 1983 levels.

Per capita milk and dairy product consumption levels in Figure 1 represent the raw milk equivalent of all dairy products consumed. The 1990 level of 571 pounds per person indicates that average consumption of milk and dairy products is equivalent to just over 66 gallons of raw milk each year for each person in the United States.

Fluid Milk Products

Fluid milk product consumption currently accounts for 233 pounds out of the 571-pound total, or about 40 percent of total milk consumption. Per capita fluid milk consumption has declined about 11 percent since 1970. However, total milk used for fluid products has remained nearly constant with population growth offsetting declining per capita consumption (Figure 2).

Significant change in the mix of products consumed has occurred within the relatively constant fluid milk total. Figure 2 indicates that lowfat and skim milk consumption has grown from 19 percent of fluid product consumption in 1970 to 57 percent in 1990. During the same period, whole milk consumption declined from 79 percent of the total to 38 percent at the present time. Although a small part of the total, consumption of other fluid products including cream (half and half, light and heavy cream, and sour cream) and yogurt

**FIGURE 1. MILK AND DAIRY PRODUCT USE
PER CAPITA U.S. DISAPPEARANCE**

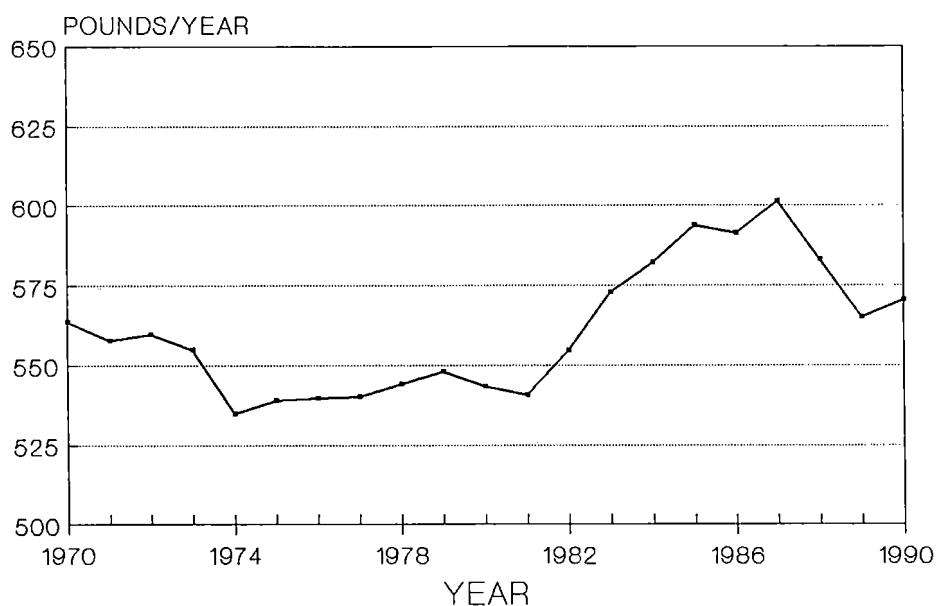
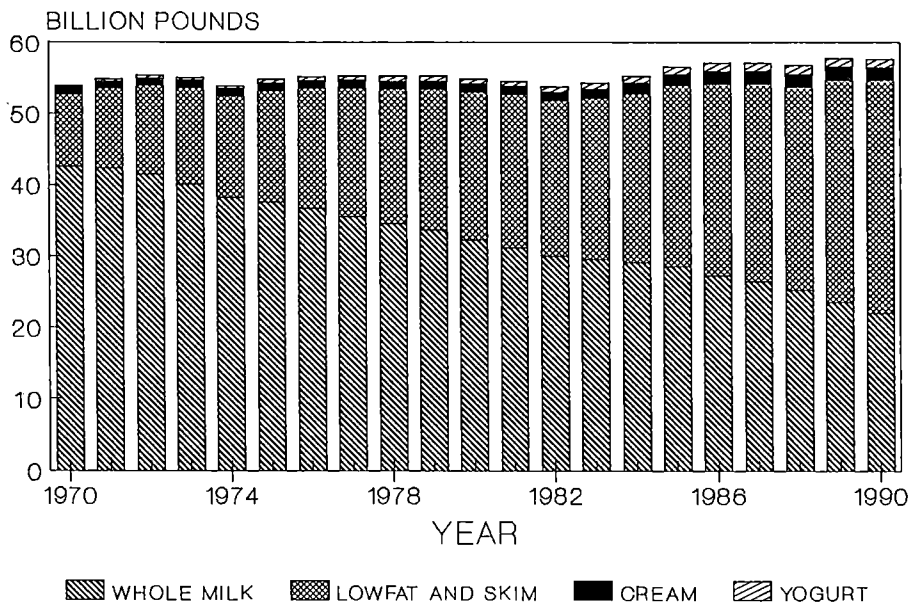


FIGURE 2. FLUID MILK SALES BY PRODUCT



have increased since 1970. Yogurt consumption, though small, increased over six times between 1970 and 1990.

Manufactured and Frozen Dairy Products

Figure 3 indicates the current level of dairy product consumption for most products. Ice cream/ice milk and cheese each represent about one-third of nonfluid product consumption on a weight basis. Evaporated and dry milk products together represent another 18 percent of dairy product consumption. Other frozen products, primarily frozen yogurt, have grown from practically zero a few years ago to 6 percent of total product consumption in 1990. Frozen yogurt is the fastest growing dairy product category at the present time.

Per capita consumption of ice cream and ice milk have remained steady in recent years with slight decreases in ice cream consumption offset by increases in ice milk consumption. Cottage cheese consumption has declined from 4.5 pounds in 1980 to current consumption of 3.4 pounds per capita. Consumption trends for manufactured dairy products are shown in Figure 4. Cheese consumption has doubled in the past 20 years while butter, evaporated milk and nonfat dry milk consumption first declined then remained mostly steady in recent years.

Figure 5 illustrates the increase in cheese consumption in more detail. Consumption of all types of cheese has increased. American cheese, primarily Cheddar, is still the dominant type of cheese consumed. American cheese consumption increased from 7 pounds in 1971 to a peak of nearly 12.5 pounds in 1987. It has since declined to 11 pounds per year. Italian cheeses continue to exhibit the most rapid growth in consumption. Italian cheeses include Mozzarella,

Provolone, Romano, Parmesan, and Ricotta cheese. Consumption of Italian cheese increased from about 2 pounds per capita in 1971 to current levels of just over 9 pounds per capita. Other cheeses, including Swiss, Brick, Cream, Blue, Edam and Gouda, have about doubled in consumption in the past 20 years to current levels of about 4.5 pounds per capita.

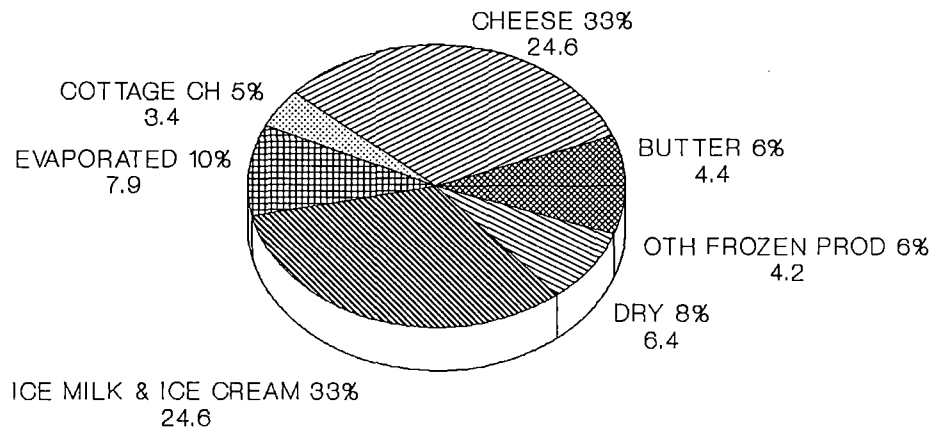
Implications of Changing Dairy Product Consumption

Changing consumption patterns for milk and dairy products have a number of implications for the dairy industry. Increased demand for lowfat and skim milk and dairy products is a consistent theme in all of the trends described above. The switch from whole milk to lowfat and skim milk, from ice cream to ice milk, increased consumption of fresh and frozen yogurt, and growth in consumption of lowfat cheese such as the Italian cheeses are all examples of consumer reaction to concerns about dietary fat and cholesterol intake.

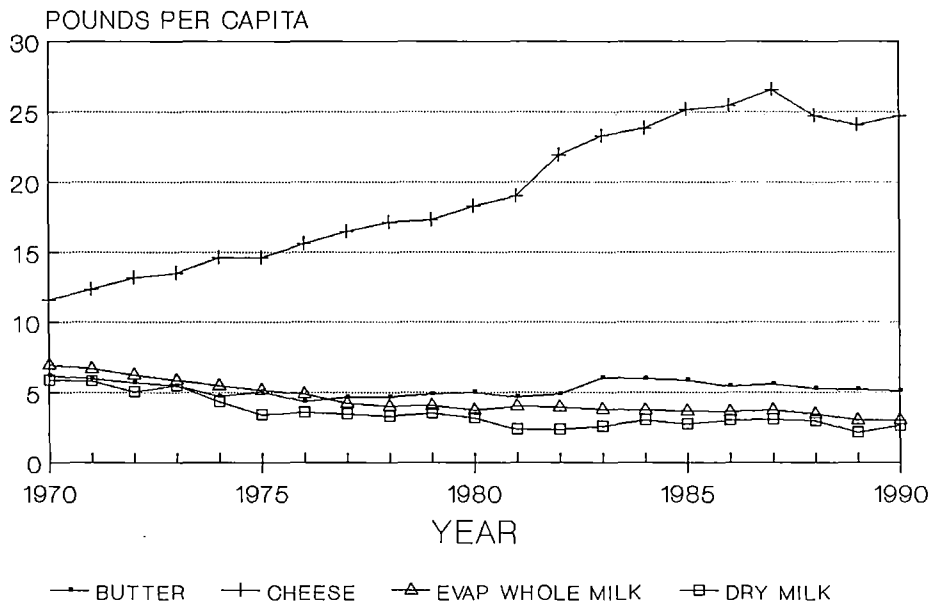
Increased demand for lowfat and skim products and the resulting excess milkfat has created problems in milk pricing. Milk pricing is complicated because each pound of raw milk may be utilized in a variety of ways which result in alternative product mixes. The growth in demand for lowfat and skim milk products has, in effect, increased the product potential of each pound of raw milk produced. For example, a gallon of skim milk which replaced a gallon of whole milk for fluid consumption leaves the remaining milkfat available for dairy product manufacturing.

One of the results of these changes has been an imbalance between markets for the protein components of milk and the milkfat. Historically, milkfat was the primary indicator

**FIGURE 3. 1990 DAIRY PRODUCT CONSUMPTION
POUNDS PER CAPITA**

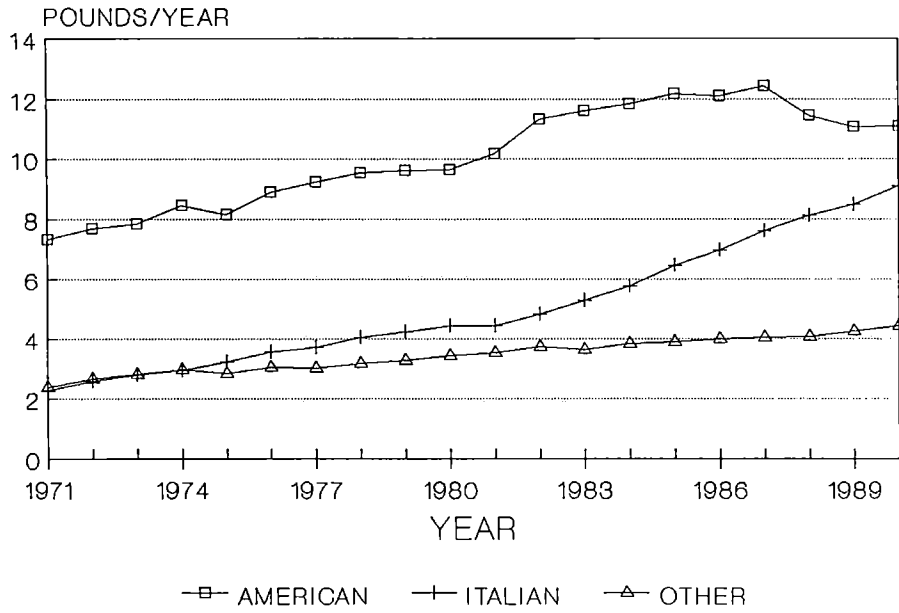


**FIGURE 4. DAIRY PRODUCT CONSUMPTION 1/
POUNDS PER CAPITA**

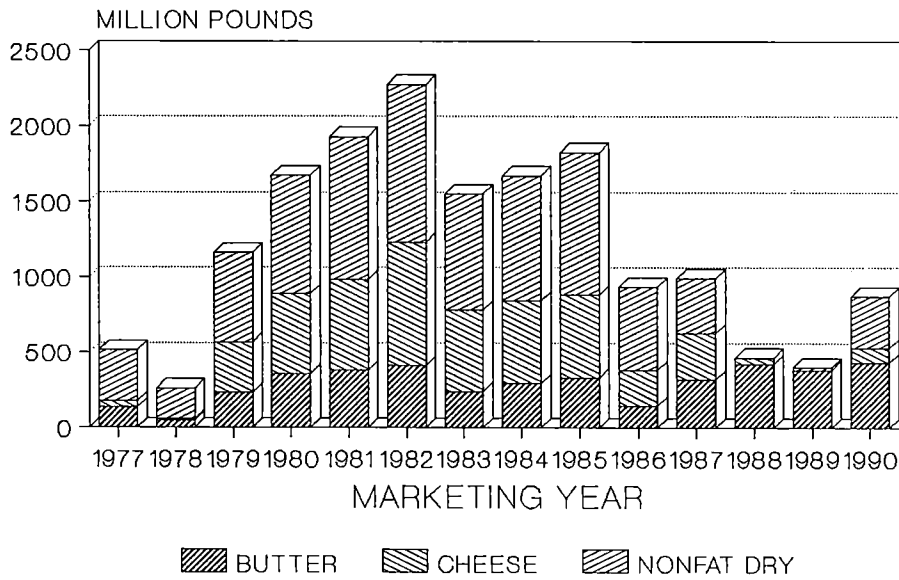


1/ INCLUDES GOVERNMENT DONATIONS

FIGURE 5. PER CAPITA CHEESE CONSUMPTION



**FIGURE 6. USDA DAIRY PRODUCT REMOVALS
MARKETING YEARS, OCTOBER - SEPTEMBER**



of milk quality, and milk was priced on a milkfat basis. Excess production of milkfat products, especially butter, in recent years has resulted in low butter prices at the same time that demand for lowfat dairy products has been strong. The dairy manufacturing industry is struggling to adopt new pricing practices that reflect changing dairy product demands.

The challenges of accomplishing federal dairy policy goals are also increased by changing dairy product consumption patterns. Government attempts to support milk prices, which must be accomplished indirectly through the purchase of manufactured dairy products, are made more difficult due to changing product demands. Price imbalance between high milkfat and low milkfat products sends unclear signals about the status of the dairy industry. In the 1989 marketing year, low butter prices resulted in substantial government purchases of butter in spite of high prices for milk, cheese and nonfat dry milk (Figure 6). Figure 6 confirms that butter purchases continue to increase although total government dairy product purchases have been greatly reduced from the record levels of the early 1980s.

Changing dairy product demand is also contributing to substantial structural change in the U.S. dairy industry. For many years, the upper Midwest was the center of dairy product manufacturing. As population grew in the southeast

and southwest, milk makers developed in those areas. However, these markets were dominated by fluid milk sales. The switch to lowfat products has resulted in more product manufacturing in all regions to utilize the excess milkfat left from the sale of lowfat and skim fluid milk. The switch to lowfat and skim products has increased the economic pressure on those areas that are predominantly manufactured product markets. The demise of the Grade B dairy industry has been hastened by the increasing proportion of manufactured products from residual milkfat from fluid milk sales.

Summary

Dramatic change in dairy product demand is one of several factors to revolutionizing the U.S. dairy industry. Increased demand for lowfat and skim products has altered the total product mix and has increased the production potential of raw milk. Imbalance in dairy product production and consumption is changing the relative prices of products and is causing a reevaluation of raw milk pricing practices. Changing consumption patterns are also influencing the effectiveness of government policy actions, and are causing reconsideration of the role of government policy as the distinction between excess milk production and excess milkfat production.

Oklahoma State Cooperative Extension Service does not discriminate because of race, color, sex, or national origin in its programs and activities, and is an equal opportunity employer. Issued in furtherance of cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Charles B. Browning, Director of Cooperative Extension Service, Oklahoma State University, Stillwater, Oklahoma. This publication is printed and issued by Oklahoma State University as authorized by the Dean of the Division of Agricultural Sciences and Natural Resources and has been prepared and distributed at a cost of \$296.00 for 2,950 copies. #2481 0292 TD.