

## Chapter 10

# Advertising and What We Eat

## The Case of Dairy Products

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*Two national programs for dairy advertising, authorized by Congress, have concentrated on advertising for fluid milk and cheese. This chapter analyzes the effectiveness of these programs, and shows that generic advertising has had a positive impact on both cheese and fluid milk sales. After calculating the added revenue to producers due to higher prices and the added costs of generic advertising, it is estimated that dairy producers received \$5.33 in return for each additional dollar spent on generic promotion.*

### Introduction

Advertising is directed toward existing and potential consumers of a product with the objective of increasing sales. Food advertising therefore attempts to persuade the consumer to purchase a particular type or brand of food. Advertising can directly influence the types and the amounts of foods purchased, and thereby affect the nutrient intake of consumers.

Two basic types of advertising exist. *Branded advertising* promotes the characteristics of a given brand of the commodity. The firm pays for the cost of advertising and directly receives any benefits that may accrue from the promotional campaign. *Generic advertising* promotes consumption of the general commodity by a cooperative effort

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of producers. This cooperation may be voluntary or mandatory if required by either a cooperative or by Federal/State legislation of a commodity checkoff or marketing order promotional program. In such cases, producers pay the costs and have control over the program design. The food industry uses both types of advertising.

Branded and generic advertising attempt to influence consumer purchases in slightly different ways. Branded advertising attempts to persuade and reinforce the choices the consumer makes. Since the object of branded advertising is to increase market share and thus total sales, the consumer must be persuaded to purchase and to make repeat purchases of a particular brand. On the other hand, generic advertising attempts to encourage consumers to become buyers of a product and to make repeat purchases of the product. The difference can be seen in cheese advertising. The State of Wisconsin has attempted to brand its cheese as superior to cheese produced in other States. Hence, Wisconsin advertising attempts to encourage consumers to purchase Wisconsin cheese, whereas generic advertising attempts to encourage consumers to purchase cheese regardless of its source.

There is some evidence that generic advertising increases aggregate demand for the commodity, or at least mitigates a decline in consumption. Empirical evidence that branded advertising increases aggregate demand is less persuasive. In general, generic advertising tends to provide more information about the product group (which may include nutritional information) and to be less deceptive than branded messages.

## **National Generic Advertising Programs**

Either the Federal or State government can authorize collections for generic promotion programs. Programs can then be funded and managed entirely by producers (freestanding operations), or tied to USDA regulatory programs (marketing orders or checkoff programs). A few programs offer producers the option of having their assessment refunded, and most programs allow producers to vote on whether to start or continue the promotion.

Eleven national checkoff programs exist that deal directly with food commodities. These promotional boards collected \$168.33 million in 1993. Beef, pork, and dairy accounted for \$146.8 million, egg and potatoes \$8 million each, honey \$3 million, mushrooms and pecans

around \$1 million each, and watermelons \$0.85 million. The lime promotional board collected nothing for 1993, and the wheat promotional board was inactive in 1993 (Neff and Plato, 1995).

There is much speculation over whether generic advertising actually influences consumer choices. However, little evidence is available since only the two dairy promotion programs require an independent evaluation of the program's effectiveness, which must be delivered to Congress each year.

## **Dairy Promotion Programs and Their Effects on Dairy Consumption**

Two national programs for dairy advertising have been authorized by Congress. Both dairy programs are financed by an assessment and are designed to increase consumer demand for milk and other dairy products.<sup>1</sup> USDA has oversight responsibility for both dairy promotion programs.

### **Producer Dairy Promotion Program**

The Dairy Production Stabilization Act of 1983 (Dairy Act) authorized a national producer program for dairy product promotion, research, and nutrition education as part of a comprehensive strategy to increase human consumption of milk and dairy products and reduce milk surpluses. This self-help program is funded by a mandatory 15-cent-per-hundredweight assessment (dairy producers received approximately \$13.00 per hundredweight of milk in 1997) on all milk produced in the contiguous 48 States and marketed commercially by dairy farmers, and is administered by the National Dairy Promotion and Research Board (Dairy Board). The Dairy Act provides that dairy farmers can direct up to 10 cents per hundredweight of the assessment for contributions to qualified regional, State, or local dairy product promotion, research, or nutrition education programs (Qualified Programs).

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<sup>1</sup> The discussion below is based on *USDA Report to Congress on the National Dairy Promotion and Research Program and the National Fluid Milk Processor Promotion Program*, July 1, 1997.

Dairy Board revenue from the 15-cent-per-hundredweight producer assessment was \$77.8 million in 1996. Of the total monies collected, 66.1 percent was used for advertising and promotion, and 14.3 percent was used for nutrition education and public and industry communication. The remainder of the funds was used for market, nutrition, and product research, as well as for export enhancement, general and administrative expenses, etc.

The producer program has concentrated on advertising for fluid milk and cheese. From 1994 through 1996, advertising programs for fluid milk and cheese accounted for approximately 90 percent of qualified programs' advertising expenditures. These included efforts to increase school participation in the school breakfast program (of which milk is an important component), as well as television and radio campaigns to stimulate consumer purchases of milk (such as the *Got Milk?* campaign, targeted at an audience age 13-34) and cheese (such as the *Cheese to the Rescue* campaign, targeted at women age 25-54—who are the main household purchasers of cheese—and which promoted cheese as a vital component of food preparation in today's time-constrained environment).

## **Fluid Milk Processor Promotion Program**

The Fluid Milk Promotion Act of 1990 (Fluid Milk Act) authorized the establishment of a national processor program for fluid milk promotion and education. This program is financed through a 20-cent-per-hundredweight assessment on fluid milk processed and marketed in consumer-type packages in the 48 contiguous States and the District of Columbia by processors who market more than 500,000 pounds of fluid milk per month. The program was created to strengthen the position of the dairy industry in the marketplace and to maintain and expand markets and uses for fluid milk products in the United States. Processors administer this program through the National Fluid Milk Processor Promotion Board (Fluid Milk Board), with annual revenue of approximately \$110 million. The initial Fluid Milk Board was appointed in June 1994.

In January 1995, the Fluid Milk Board initiated a national media campaign (*Milk, What a Surprise!*) designed to educate women age 25-44 about the nutritional qualities of milk and its importance in a healthy diet. The target audience was later expanded to include women age 25-49, teen girls 13-18, men and women 18-24, and men

25-34. These groups represent approximately 56 percent of all milk consumed in the United States. A series of print ads featuring celebrities wearing milk mustaches appeared in over 90 magazines, the largest print buy ever for a beverage advertiser. Because of the campaign's size, various magazines added features about the benefits of milk and other aspects of the print campaign. Other portions of the campaign include a medical advisory board to serve as spokesmen, outdoor billboard and transit posters, consumer tie-in promotions, a consumer hotline about the benefits of milk, a series of informational brochures on milk-related topics, the MilkPEP Internet site, a college campus tour, and a consumer milk mustache contest.

## **Effects of Advertising on Fluid Milk Sales**

The Economic Research Service has analyzed the effect of generic advertising on fluid milk sales. The first advertising expenditures under the Dairy Act occurred in September 1984. The analysis used data from 12 regions, before (December 1978 to August 1984) and after (September 1984 to September 1996) the Dairy Act became law, and controlled for other influential factors such as the retail price of fluid milk, per capita income, demographic characteristics, and seasonality.<sup>2,3</sup> Advertising expenditures for 1995 and 1996 included expenditures by both the National Dairy Board and the Fluid Milk Processor Board. Sales effects resulting from the Dairy and Fluid Milk Acts were estimated by assuming that regional advertising expenditures would have continued at the same inflation-adjusted levels as in the year before the Dairy Act's implementation. Net sales gains due to the Dairy and Fluid Milk Acts were calculated by subtracting estimated sales assuming pre-Dairy Act advertising expenditure levels from estimated sales using actual advertising expenditures.

The analyses show that generic advertising had a positive effect on stemming the decline in per capita milk consumption. Per capita milk consumption has been trending downward since the late 1970's, after briefly increasing in the 1980's. The Dairy and Fluid Milk Acts

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<sup>2</sup> The 12 milk marketing orders account for approximately 43 percent of the U.S. population and fluid milk consumption.

<sup>3</sup> Per capita consumption of fluid milk exhibits significant seasonal cycles, with peaks in early fall and troughs in June and July.

accounted for \$183.5 million in additional fluid milk advertising expenditures in the 12 regions from September 1984 to September 1996. These additional expenditures led to an estimated 16.9-billion pound increase over the 12 regions' expected milk sales in the absence of the programs.

From October 1995 to September 1996, fluid milk sales in the 12 regions totaled 23.5 billion pounds. Increased advertising expenditures due to the Dairy and Fluid Milk Acts were \$29.8 million. It is estimated that the additional advertising expenditures increased sales by 1.4 billion pounds, or 5.9 percent of total sales, which is equivalent to 47 pounds of milk sold for each additional advertising dollar.

Sales increases due to the Dairy and Fluid Milk Acts stem from increases in both advertising dollars and in their effectiveness. Factors other than advertising (such as increased public concern about calcium intake) may have caused some shifts in the consumer demand for milk in the post-Dairy Act period. Thus, the analysis might overstate the actual effect of the Dairy and Fluid Milk Acts on sales response for a given level of advertising expenditures.

## **Effects of Advertising on Cheese Sales**

Data limitations restricted the analysis to the effects of advertising on nationwide sales of cheese for home use, about a third of the total market for cheese. Cheese consumed away from home (in restaurants and school meals, for example) or used as ingredients in combination foods (such as macaroni-and-cheese mixtures and frozen pizza) is not included. The effects on processed and natural cheese were analyzed separately since their purchasing patterns, prices, and product characteristics differ.

As with fluid milk, sales effects resulting from the Dairy Act were estimated by assuming that regional advertising expenditures would have continued at the same inflation-adjusted levels as in the year before the Dairy Act's implementation. Net sales gains due to the Dairy Act were calculated by subtracting estimated sales assuming pre-Dairy Act advertising expenditure levels from estimated sales using actual advertising expenditures.

The model controlled for the price of cheese, prices of substitutes (such as meat, poultry, and fish as well as imitation cheese), income,

seasonality, time trends, and government donations (which influence the demand for cheese).

The increase in advertising increased at-home cheese consumption by approximately 561.9 million pounds during September 1984-September 1996, or 2.3 percent of the 24.0 billion pounds sold. The impact of generic advertising on sales of cheese for at-home use differed for natural and processed cheese. The campaign is estimated to have increased natural cheese sales by 63.2 million pounds (0.5 percent of total natural cheese sales) and processed cheese sales by 498.7 million pounds (5.0 percent of total processed cheese sales).

From October 1995 to September 1996, generic advertising increased sales of natural cheese by 5.3 million pounds (0.4 percent of total sales) and processed cheese by 57.4 million pounds (6.2 percent of total sales) for a combined increase in total cheese sales for at-home use of 62.7 million pounds (2.8 percent of total sales). The greater effectiveness of generic advertising in increasing processed cheese sales may be partly because the effects are sustained over longer periods of time than is the case for natural cheese due to lag of the model.

## Conclusion

Statistical analyses show that generic advertising has had a positive impact on both cheese and fluid milk sales. Advertising conducted under the Dairy and Fluid Milk Acts increased fluid milk sales by 6 percent over the 12-year period ending in September 1996, whereas advertising under the Dairy Act increased national retail sales of natural and processed cheese for at-home consumption by 2.3 percent over expected sales without the program.

After taking into account the economic links among consumers, processors, and milk producers, and other market factors that influence decisions at each market level, ERS estimated that generic advertising boosted demand for fluid milk and cheese, but not demand for butter and frozen dairy products. The advertising programs caused higher farm-level milk prices. Over the simulation period (1975 to 1996), farm prices averaged 3.8 percent higher after 1984. The rate of return to producers was estimated by calculating the added revenue to producers due to higher prices and the added costs of generic advertising associated with the Acts. This translates

into dairy producers receiving \$5.33 in return for each additional dollar spent on generic promotion above pre-Act levels. Other studies have reported rates of return between \$2.50 and \$7.00.

Other checkoff programs have also tried to increase demand for their commodities by presenting the commodity as a more wholesome product—the pork “other white meat” campaign, for example. This promotion has tried to capitalize on the perceived health benefits of chicken and to convince consumers that pork is as healthful to eat as chicken.

Research on the effectiveness of the beef checkoff program, which initiated its first national programs in 1987, has shown it to be effective in increasing demand for beef and reducing the downward trend observed in the 1970’s and 1980’s (Ward, 1994). That research concluded that, on average, the promotional and information programs resulted in an additional \$3.3 billion in industry revenues, and that, on average, producers (at the live-weight market level) received \$5.40 for each dollar spent on promotions and information programs.

In spite of the effectiveness of these promotion programs, not all the generic advertising programs can increase a food’s share of the consumer’s food basket. A consumer who chooses to eat more chicken will likely consume less beef and pork. If more dairy products are consumed, less meat may be eaten. Indeed, it has been hypothesized that generic advertising campaigns may offset each other. However, the final composition of the diet is still influenced by generic advertising.

## References

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