Changing Consumer Demands Create Opportunities for U.S. Food System

David E. Davis and Hayden Stewart

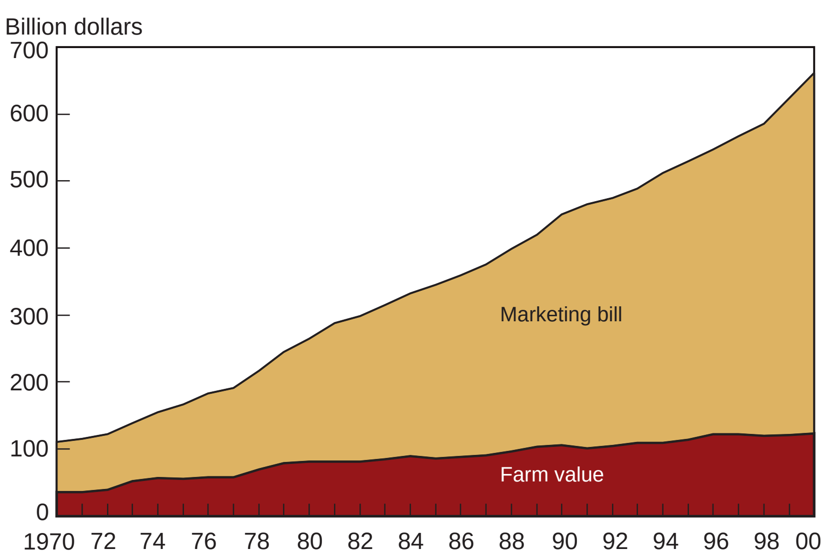
In response to shifts in consumer demand, different sectors of the food system are competing to identify and provide more processed and higher value-added products. The foodservice industry has benefited from Americans' desire for convenience. The retail food industry, however, is now responding to the new challenges by offering consumers a variety of processed, ready-to-cook, and ready-to-eat foods.

Food Marketing Costs Rising Faster Than Farm Value

Consumers' demand for more processed foods is reflected in the growing wedge between annual consumer food expenditures and the value of farm commodities (fig. 1). In 2000, consumer expenditures on domestic food (excluding seafood) consumed at home and away from home totaled $661 billion. The value farmers contribute to food expenditures by providing primary agricultural commodities accounted for $123 billion, or about 19 percent of the total value. The remaining 81 percent reflects the value added as labor, advertising, processing, transportation, packaging, and other marketing costs are incurred transforming farm commodities into food products and meals. In 1970, farm value was 32 percent of consumer food expenditures, while marketing costs were 68 percent.

Researchers with USDA's Economic Research Service predict food expenditures will increase 26 percent over the next 20 years. However, because demand for primary agricultural commodities has been relatively constant, and given the current demand for value-added products, much of this increase will be due to increases in marketing costs.

Figure 1—Marketing Bill Continues to Rise



Source: USDA's Economic Research Service.

The popularity of dining out is a clear indication of market trends. Snacks and meals prepared by foodservice establishments (away-from-home food) offer consumers a desirable combination of convenience and variety. Expenditures on away-from-home food now account for about 47 percent of total U.S. food expenditures, and the National Restaurant Association projects away-from-home food expenditures will exceed at-home food expenditures by 2010.

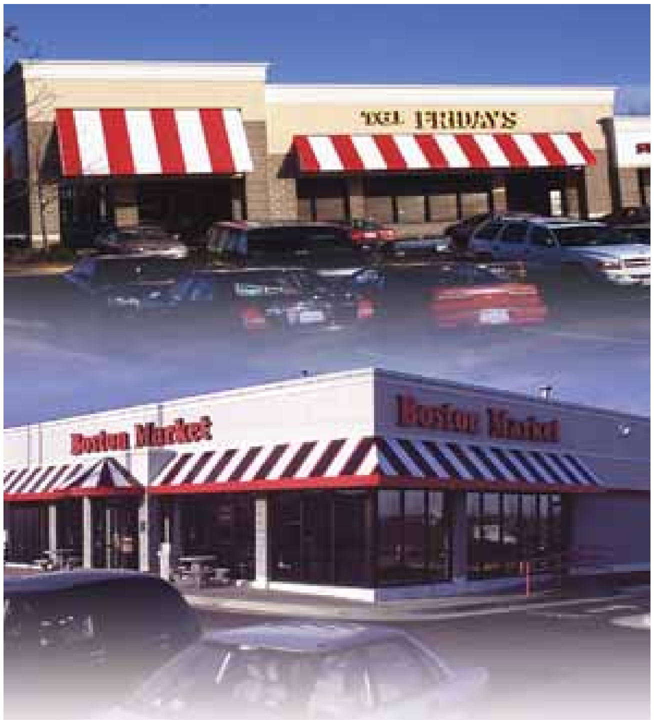
Supermarkets and other food retailers are responding to market trends and consumer demand by offering a broader variety of convenient at-home food products. Indeed, retailers are blurring the line between at-home and away-from-home foods by offering products requiring minimal preparation, including ready-to-eat, ready-to-heat, and ready-to-cook products. Again, these products require more processing and labor inputs, causing marketing costs to increase.

Economic and Demographic Changes Affect Away-From-Home Food Demands

U.S. economic growth has been, and will be, a primary determinant of consumer expenditures on away-from-home foods. Households with higher incomes eat out more frequently and spend more money per dining occasion than households with lower incomes. Studies show a

David E. Davis (202) 694-5382 ddavis@ers.usda.gov
Hayden Stewart (202) 694-5394 hstewart@ers.usda.gov

The authors are economists with the Food and Rural Economics Division, Economic Research Service, USDA.



Restaurants are moving to combine the food and atmosphere of full-service restaurants with the speed of limited-service restaurants. This effort has lead to a new segment of the market, "fast casual."

Credit: Ken Hammond, USDA.

10-percent increase in income will cause a household's expenditures on away-from-home foods to increase about 4.6 percent, compared with a 1.3-percent increase for expenditures on at-home foods.

Smaller households are also driving America's demand for away-from-home foods. In 1980, the average U.S. household was 2.8 persons per household. By 2020, average U.S. household size is expected to decline to 2.4 persons per household. Studies show that smaller households eat out more often in part because of time and expense economies present in purchasing and preparing meals. The time spent preparing food for each family member tends to decrease as the size of a family increases. For example, it might take 30 minutes to prepare a meal for four and 20 minutes to prepare a meal for one. Furthermore, the per person monetary costs of preparing meals likely decrease as household size increases. Larger households can benefit by purchasing larger package sizes with lower per unit costs. In total, single-person households have the highest per person time and monetary costs for purchasing and preparing meals.

Differences in dining out preferences across generations may also be important determinants of away-from-home food consumption. Past consumption patterns suggest that an individual's away-from-home food expenditures decrease as the individual ages. However, these patterns may not apply to future generations of aging Americans, particularly baby boomers. Baby boomers may continue to prefer dining out, counteracting the traditional age effect that predicts a decline in away-from-home food expenditures. As baby boomers are making up a large and increasing share of the overall population, their future dining habits will have a significant effect on the foodservice industry.

The degree to which America's growing ethnic and racial diversity will affect away-from-home food expenditures is uncertain. Controlling for income effects, studies show that some minority consumers have historically dined out less frequently and spent less when dining out than nonminority households. The plethora of ethnic restaurants today may reflect both increased population diversity and increased demand for ethnic variety driven by better traveled and wealthier U.S. consumers. The baby boomers and younger generations are more traveled than previous generations and seem to value diverse cuisine and dining experiences as attributes of a good meal.

Limited-Service Restaurants Growing More Slowly? …

Economic and demographic trends in the United States are not only affecting overall consumer expenditures on away-from-home foods but are also influencing consumer choice in the types of away-from-home facilities to patronize. Limited-service and full-service restaurants are the largest categories of commercial eating-and-drinking places in terms of expenditures (fig. 2). Limited-service restaurants are facilities that do not have waitstaff and require customers to pay for their food at a counter after their order is taken. These establishments range from the traditional fast food hamburger and fried chicken chains to kebob shops and sandwich shops. High-growth concepts include Subway Restaurants, a chain that sells a variety of submarine sandwiches. Over the past few years, Subway has upgraded its menu by increasing the variety of breads and other ingredients offered. The company has also emphasized the health benefits of its low-fat sandwiches. According to company reports, sales at existing restaurants grew, on average, about 18 percent in 2000. Subway also celebrated the opening of its 15,000th restaurant in April 2001.

Growth is less robust among some traditional limited-service concepts. For example, the largest Burger King franchisee, AmeriKing, reportedly had been opening about 20 new Burger King stores annually and buying 20-40 existing stores each year. About 2 years ago, the company curtailed its growth plans in response to weak sales.

New avenues for growth among traditional fast food outlets, such as Pizza Hut or Taco Bell, include opening new restaurants in retail stores, such as Wal-Mart and Target. Some limited-service chains are also trying to deliver more convenience to consumers by accepting debit and credit cards, forms of payment not traditionally accepted at these restaurants (table 1).

The future for limited-service restaurants is uncertain. Current trends suggest other foodservice sectors will likely grow faster than many limited-service restaurants. However, the industry can be expected to make further adaptations to generate growth. If some limited-service restaurants continue to struggle, more successful firms may leverage their growth by acquiring or merging with less successful firms.

…While Full-Service Restaurants Shine?

Varied growth rates across different types of away-from-home food establishments suggest that consumer demand for convenience is not the only force behind current trends. Some consumers are also looking for dining amenities and diverse menus. The National Restaurant Association forecasts that sales at full-service restaurants will grow faster than at limited-service establishments through 2010. Unlike limited-service facilities, "full-service" dining establishments have waitstaff, may serve alcohol, generally accept credit cards, and may have more formal seating and interior decorations.

Growing full-service enterprises include Applebee's Neighborhood Grill & Bar and T.G.I. Friday's. Consumer demand for convenience as well as demand for more dining amenities and diversity can explain the success of these establishments. These amenities include the services associated with full-service restaurants, such as waitstaff, alcohol service, and, possibly, restaurant decor. Diversity may include a wider range of menu offerings and meals tailored to groups with health or environmental concerns. For example, T.G.I. Friday's features Meyer Natural Angus beef burgers. According to company literature: "These new 100 percent natural Angus beef burgers are made from Meyer Natural Angus cattle, raised on a strict diet of wholesome forages and grains. The cattle are never administered hormones, antibiotics or animal by-products. In addition, a single source of origin helps ensure the quality of the hamburger from supplier to restaurant locations."

Other new dining-out concepts are emerging to satisfy a variety of consumer demands. "Fast-casual" restaurants, such as Boston Market, Chili's Express, and Schlotzsky's Deli, are combining the food and atmosphere of full-service restaurants with the speed of fast food restaurants. Similarly, takeout dining is increasingly popular at limited-service, fast food type restaurants. The National Restaurant Association reports the share of customers at limited-service restaurants ordering food for on-premises dining fell from 36.6 percent of customers in 1993 to 34.3 percent in 2000.

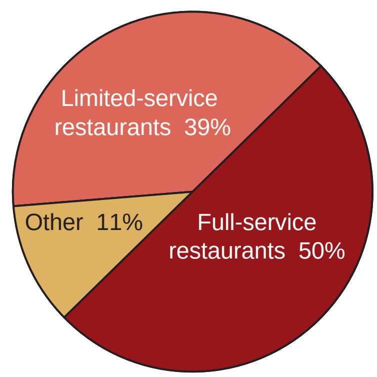
Food Retailers Responding to Consumers' Demand for Variety….

Food retailers are responding to consumers' demand for convenience and healthful foods by providing a greater variety of food products in a wider variety of formats. The median number of items carried by U.S. supermarkets was about 40,000 in 1999, far greater than the 14,000 items offered in 1980. Today's supermarkets strive to satisfy consumer preferences for one-stop shopping by offering many nonfood items and a variety of other services, such as floral items and banking services.

Changes in supermarket produce departments exemplify changes taking place in other food departments in U.S. supermarkets. Cornell University tracks produce Stock Keeping Units (SKU) in large (greater than $1.5 billion in sales) and small (less than $300 million in sales) supermarkets. In 1994, both size stores offered fewer than 350 produce items. By 1999, large firms offered about 480 produce items and small firms offered about 400 items. Furthermore, Cornell forecasts large firms will offer 558 produce items by 2004 and small firms will offer 541 items. While supermarket produce departments are changing and are offering more nonfresh food items, such as floral items, the large increase in items offered is more likely a result of the industry's response to consumer demand for more fresh produce. The growth of bagged salads and other packaged fresh-cut products offers further evidence of the industry's response to consumer demand for convenient, healthful foods. As the U.S. population ages and per capita incomes increase, these trends will continue.

Retailers are also responding to consumer demand for the ultimate convenience food, the restaurant meal, by offering ready-to-eat entrees and side dishes. According to a Food Marketing Institute survey conducted in 2000, 83 percent of consumers said their supermarkets offered ready-to-eat or takeout food. As incomes increase and consumers demand more prepared foods, these retail food trends

Figure 2—Full-Service Restaurants Accounted for 50 Percent of All Sales at Commercial Eating-and-Drinking Places in 2000



Note: The category "other" includes commercial cafeterias, social caterers, snack and nonalcoholic-beverage bars, bars, and taverns.
Source: *Restaurant Industry Forecast 2001*, National Restaurant Association.

Table 1—Limited-Service Restaurants Now Offer More Convenience-Oriented Services

Service offered	Average check size: Under $5	Average check size: $5 or More
	Percent of operators	
Drive-thru window	79	54
Self-service beverage kiosk	57	53
Option to pay by credit card	36	54
Self-serve customer-activated ordering terminals	7	2

Source: *Quickservice Trends*, National Restaurant Association.

The Meat Industry Responds With New Products and Business Arrangements

The meat industry provides an example of how changing consumer demands require the participants in the food system—farmers, processors, retailers, and foodservice operators—to adapt. Since 1970, U.S. per capita consumption of chicken has increased from 40 pounds per year to over 80 pounds per year, while per capita beef consumption decreased from 84 pounds per year to 62.5 pounds per year. Per capita pork consumption has remained relatively flat at about 50 pounds per year.

This contrast in consumption of beef and chicken can be explained by several factors, including health concerns associated with the fat content of beef and changes in relative prices. However, a large part of the increase in poultry consumption may be due to the industry's emphasis on producing value-added, convenient products. The National Chicken Council reports that only 34.7 percent of total processed broilers in 1974 were sold as cut-up pieces, a value-added, more convenient product as opposed to whole roasters. By 1989, the share of cut-up chicken grew to over 60 percent and increased to 65.4 percent in 1999. Further processed products (patties, fillets, and nuggets) represented 2.9 percent of processed broilers in 1981 but increased to 10.2 percent in 1999. An integrated production process and changes in technology have enabled the industry to provide a consistently high-quality poultry product for consumers.

Members of the beef and pork industries are attempting to make their products more convenient for consumers. The National Cattlemen's Beef Association and the National Pork Producers Council have encouraged and supported development of convenient red meat products. All major red meat processors now offer a variety of convenient, fully cooked, or microwave-ready products. Moving away from selling meat as an unbranded commodity, and again emulating poultry processors, beef and pork processors now are differentiating themselves from their competitors by branding their products. These branded products are frequently prepackaged and sold to retailers as "case-ready."

Meat processors are also strategically realigning to build on their core businesses and expand further into more processed, higher profit margin food products. In 2000, IBP, one of the Nation's largest processors of fresh beef and pork products, realigned itself to better capture the value-added markets for red meats. After acquiring Corporate Brand Foods America and other companies specializing in further processing, IBP restructured and expanded its value-added business operations. In late 2000, the company became the subject of takeover attempts by Tyson Foods and Smithfield Foods. These companies' interest in IBP stemmed, in part, from a desire to apply value-added successes in chicken (Tyson) and pork (Smithfield) to beef, IBP's strongest red meat product. The matter was resolved in summer 2001 when Tyson Foods acquired IBP.

should continue, representing more competition for limited-service restaurants.

U.S. food retailers are also offering a variety of new food products. *The New Product News* reports that new food product introductions averaged approximately 12,624 items annually between 1990 and 1999. New food product introductions peaked in 1995 at 16,863 items and decreased in each successive year. However, the 9,145 new products introduced in 2000 are still far more than the 2,689 new products introduced in 1980 (see "Food Product Introductions Continue to Decline in 2000" elsewhere in this issue).

Research suggests that income growth and changes in demographics affect the number of food items demanded by consumers. For example, a Texas A&M and Cornell University study estimates that a 10-percent increase in income is associated with a 0.7-percent increase in demand for ready-to-eat meals. Consumer time constraints also likely affect the number of food items demanded. Researchers have found that areas with high rates of women in the workforce are associated with a less diverse basket of goods purchased. Households in these areas purchase fewer traditional goods for at-home meal preparation but purchase more prepared products.

Studies also indicate that ethnicity affects consumer demand for food products. A study in *Agribusiness* shows that areas with a more diverse population are associated with a more diverse basket of goods purchased. Retailers are responding to increasing ethnic diversity among consumers in a number of ways. For example, Nash-Finch Company, a Fortune 500 food retailer and distributor, is developing a new Hispanic-oriented supermarket concept for four pilot stores in the upper Midwest. Wholesalers that can supply retailers with food items demanded by their ethnically diverse customers are also benefiting from the Nation's changing demographics. For example, Samra Produce, a Los Angeles-based food wholesaler, provides okra and other specialty vegetables to smaller supermarkets serving diverse communities. Supermarkets with ethnically diverse customers will likely increase their offerings of meat products and fruits and vegetables, tailoring new selections to the preferences of their customers.

.... And Low Prices and Convenience

Some consumers are making more of their food purchases from less traditional outlets. From 1990 to 2000, nontraditional retailers increased their share of at-home food expenditures from 13.4 to 24.5 percent. Nontraditional retailers include warehouse club stores, supercenters, mass merchandisers, drug stores, and mail order outlets. Supercenters, such as Wal-Mart stores with a full-line grocery area to rival supermarkets, and warehouse club stores, such as Costco and Sam's Club, are the fastest growing segment of nontraditional food retailers. Warehouse club stores and supercenters accounted for less than 2 percent of at-home food expenditures annually until the early 1990s but increased their share from 1.5 percent in 1990 to 6.3 percent in 2000.

The success of nontraditional retailers likely results from consumers' desire for economy and convenience. Warehouse club stores offer large package sizes with lower per unit prices, and like discount stores, a variety of nonfood items, further reinforcing the trend toward one-stop shopping observed in traditional supermarkets. As consumers continue to demand convenience, nontraditional retailers will likely continue to capture significant food sales.

Consumers Also Looking for Natural Products and More Convenient Packaging

Health-conscious consumers are driving increases in sales of organic and natural food products. The Natural Marketing Institute reports sales of organic foods reached $7.8 billion in 2000, a 20-percent increase over sales of $6.5 billion in 1999. Specialized retailers, such as natural foods supermarkets, are benefiting from this trend. Natural foods supermarkets offer less processed foods and more foods that are frequently free of preservatives, hormones, and artificial ingredients. These stores are larger than traditional health food stores and offer a broader number of departments, similar to traditional supermarkets. Successful natural foods supermarkets include Whole Foods Market and Wild Oats Markets. These chains grew rapidly throughout the 1990s, following aggressive growth strategies through mergers and acquisitions.

Reflecting the industry trend toward more processed products, retailers are offering many food products in a variety of sizes and convenient packages. This trend seems driven by at least two factors: decreasing average household sizes and an aging population are requiring smaller and resealable packaging; and, technology innovations, driven by consumer demand for convenience and quality, are leading to new package designs. For example, bagged salads represent a significant packaging innovation in the produce aisle. Similarly, consumers are finding more branded, pre-cut, and individually wrapped (known as case-ready) cuts of meat in the meat case (see box). Other new packaging concepts include yogurt in a tube and fruit juice boxes and pouches that make products more portable and convenient.

Consumers will dictate the future course of the food system. Different sectors of the system are competing for consumer food dollars by providing value-added meals and food products now in high demand. Foodservice operators are likely to continue supplying many of these goods. Retailers are also responding to the current challenge. Manufacturers appear ready to take advantage of every marketing opportunity by changing packaging, offering new and innovative products, and serving a culturally diverse customer base. In the years ahead, successful firms in the food system will adapt to the changing tastes of consumers and capitalize on changes in their demographic makeup.

Nontraditional retailers, including warehouse club stores that entice customers with large package sizes and lower per unit prices, have increased their share of at-home food expenditures to 25 percent.

Credit: Ken Hammond, USDA.

References

Capps, O., J.R. Tedford, and J. Havlicek. "Household Demand for Convenience and Nonconvenience Foods," *American Journal of Agricultural Economics,* Vol. 67, No. 4, November 1985, pp. 862-69.

Jekanowski, Mark D., and James K. Binkley. "Food Purchase Diversity Across U.S. Markets," *Agribusiness,* Vol. 16, No. 4, 2000, pp. 417-33.

Kaufman, Phil R. "Food Retailing," *The U.S. Food Marketing System, 1996-2002,* Agricultural Economic Report, U.S. Department of Agriculture, Economic Research Service, (forthcoming).

Kaufman, Phil R. "Natural Foods Supermarkets Gaining in Popularity," *FoodReview*, Vol. 21, Issue 3, September-December 1998, pp. 25-26.

McKinsey & Company. *Foodservice 2010*, 2001.

McLaughlin, Edward, Kristen Park, Debra Perosio, and Geoffrey Green. *FreshTrack 1999: The New Dynamics of Produce Buying and Selling,* Food Industry Management, Cornell University, 1999.

National Restaurant Association. *Quickservice Restaurant Trends.* Washington, DC, 2001.

National Restaurant Association. *Restaurant Industry 2010*. Washington, DC, 1999.

National Restaurant Association. *Restaurant Industry Forecast 2001*. Washington, DC, 2000.

Park, John, and Oral Capps, Jr. "Demand for Prepared Meals by U.S. Households," *American Journal of Agricultural Economics,* Vol. 79, No. 3, August 1997, pp. 814-24.

Peters, James, and Amy Zuber. "BK Franchisees Halt Growth Plans, Say Brand Must Beef Up," *National Restaurant News*, accessed at www.nrn.com, June 29, 2001.

Prewitt, Milford. "Instant Gratification: Fast-Casual Niche Serves the Best of Both Worlds, Study Says," *National Restaurant News,* April 9, 2001, pg. 4. **FR**