

Issues Indigenous to Consumer Economics and Food Marketing: Opportunities for Research Contributions

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Introduction

Without question, I am humbled to receive the Southern Agricultural Economics Association Lifetime Achievement Award. I am, quite frankly, the accidental agricultural economist. I stumbled into agricultural economics based on suggestions made by the wife, Debbie, and a close friend, Charlie Gordon (an agricultural economist). They noted that, as a student of mathematics, I enjoyed applying the tools of the discipline to solving problems. They believed that I could use my mathematical skills to solve empirical problems in agricultural economics. Their suggestions led me to my mentor, Joseph Havlicek, Jr., and ultimately to a career in agricultural economics.

Southern agriculture is indelibly stamped in my life. During the summer months from 1975 to 1980, I worked on my father-in-law's farm in southwestern Virginia. I served on the faculty at Virginia Tech in the Department of Agricultural Economics from 1980 to 1986, and for the past 23 years, I have been on the faculty at Texas A&M University in the Department of Agricultural Economics. Importantly, my affiliation with the Southern Agricultural Economics Association has spanned four decades, from 1977 to present. Simply put, I have a deep appreciation, fondness, and respect for southern agriculture.

In receiving the SAEA Lifetime Achievement Award, I particularly want to pay homage to my mentor and dear friend, Dr. Joseph Havlicek, Jr. Simply put, Dr. Havlicek provided the guidance and nurturing of my professional

career. Consequently, I dedicate my remarks to him, given that attention in our joint efforts often was centered on issues indigenous to consumer economics and food marketing.

Background

The availability, accessibility, and choice of foods to meet an adequate and safe diet and to promote health and nutrition have been and continue to be fundamental challenges facing the U.S. food distribution system. In 2007, Americans spent about \$580 billion for food at home and about \$425 billion for food away from home, between 7 and 8% of the U.S. gross domestic product (GDP) for 2007 (USDA). Consumers play the key role in linking the provision of food by the agricultural sector to the ultimate nutritional well-being of the population. Importantly, too, the food industry, broadly defined as encompassing processors or manufacturers, wholesalers, retailers, and food service purveyors, contributes roughly 12-15% of the GDP and employs roughly 17% of the U.S. workforce (Penson et al., 2006).

Understanding of factors influencing food choices, including economic, social, psychological, and physiological factors, is needed in order to better understand the mechanisms by which individuals select and consume foods. Knowledge about how people make food choices, what factors influence consumer demands for food, the economics of farm-to-retail distribution of food, and changing food markets is critically important to developing effective agricultural and food policies.

The ability to understand present as well as future patterns of food consumption are of great importance to both public policy makers, such as the USDA and state and local agencies, as well as private commodity and industry groups. Understanding of factors influencing food choices is necessary for the expansion of markets for U.S. products, both domestically and internationally.

Food consumption and the accompanying nutritional quality of the diet are jointly determined by income, prices, and a broad range of other factors. Changing demographics and household composition as well as changes in food markets may affect the types and amounts of food consumed (Carlson and Gould, 1994; Gould, 1996; Huang, 1996; Kim, Nayga, and Capps, 2001; Murphy et al., 1992; Nayga, 2001; Variyam, Blaylock, and Smallwood, 1996; and Yen, Jensen, and Wang, 1996). Advertising efforts based on funds from producer checkoffs also may affect the demand for food and fiber products (Alston, Chalfant, and Piggott, 1995; Brester and Schroeder, 1995; Brown and Lee, 1993; Williams and Nichols, 1998). Further, time constraints by consumers may influence consumer choices of at-home consumption (prepared versus nonconvenience foods) or away-from-home consumption (Prochaska and Schrimper, 1973; McCracken and Brandt, 1987; Byrne, Capps, and Saha, 1996; Park and Capps, 1997). Simply put, reliable and timely market information on behavioral relationships that determine food choice and the economics of farm-to-retail distribution is critically important if we are to better understand structural elements of food consumption. In turn, then, with a better understanding of food consumption, we are in a position to develop effective agricultural and food policies that utilize the best allocation of resources to meet the overall goal of a safe, affordable, reliable, and nutritious food supply.

Research Opportunities

I wish to present selected research issues relevant to consumer economics and food marketing—ten, in fact. Of course, my list is not meant to be exhaustive. My top ten list of research opportunities consists of:

1. Understanding drivers of demand for food products.
2. How to cater to the time-starved consumer.
3. How to cater to the health-conscious consumer—food safety, health, and nutrition issues.
4. Ascertaining the effectiveness of advertising and promotion as well as spillover effects.
5. Determinants of price spreads or marketing margins.
6. Understanding consumption patterns of selected demographic groups.
7. Structure of the processing, wholesaling, retailing, and food service sectors.
8. Structural analysis of mergers and acquisitions in the food industry.
9. Use of information technology to improve decision-making in retail management and operations.
10. Analysis of new product introductions and acceptance.

It is important to understand the driving forces behind the demand for food products. Potential drivers, common to our discipline, include prices, income, health and nutritional factors, advertising and promotion, and demographics (region, race, ethnicity, age, and education level). Market development and strategy depend on understanding drivers of demand. With the development of theoretical and empirical models, coupled with access to representative data, we are in position to crank out own-price, cross-price, and income elasticities of demand for myriad food and beverage products. Additionally, we are in position to make forecasts of consumption of food products (Capps and Senauer, 1986).

Catering to the time-starved consumer also ranks in importance to the research agenda. Consider the current state of affairs: more women participate in the workforce than ever before; there are more single parents and more dual-income families than ever before. Bottom line, the opportunity costs of our time clearly have risen. In this light, then, we need to place emphasis on demand analyses of food away from home (FAFH) by region, meal occasion, and by type of restaurant or facility (Nayga and

Capps, 1994; Byrne, Capps, and Saha, 1996; 1998). Further, we need to place emphasis on prepared (convenience) foods and snack foods (Capps, Tedford, and Havlicek, 1985; Park and Capps, 1997) as well as assess the impacts of FAFH consumption on health and nutrition (Binkley, Eales, and Jekanowski, 2000) and the impact of the current recession on FAFH.

It is worthwhile to consider impacts of food safety, health, and nutrition—in effect, to cater to the health-conscious consumer (Capps and Schmitz, 1991). Examples of research efforts include the economic dimensions of obesity (Capps, Cleveland, and Park, 2002), the effect of food labels on diet quality (Kim, Nayga, and Capps, 2000; 2001; Harris, Padberg, and Capps, 1991; and Kim, Nayga, and Capps, 2003), analyses of food recalls and outbreaks (e.g., *Salmonella* and BSE), and profiles of consumers meeting/not meeting dietary guidelines. Within the dairy industry, examples of possible research under this umbrella include the issue of consumer evaluation of rBST-free milk and organic milk, the demand for organic, rBST-free milk, and soy milk in addition to the conventional demand work involving whole milk, low-fat milk and fat-free milk (Dhar and Foltz, 2005). With the consideration of such nontraditional determinants of demand, we bring together potentially diverse viewpoints of agricultural economists and nutritionists. This diversity potentially could lead to improvements in theoretical frameworks associated with the understanding of food demand.

Analyses of checkoff programs provide direct links to commodity boards (Williams and Capps, 2006). It also has been mandated by Congress to ascertain the effectiveness of advertising and promotion. While this body of work continues to accumulate in the agricultural economics literature, more work is needed pertaining to potential spillover effects, advertising mediums (e.g. television, radio, and print), and branded versus generic advertising (Capps, Seo, and Nichols, 1997; Capps, Bessler, and Williams, 2004).

Understanding price spreads or marketing margins also ranks in the top ten of research issues. In particular, more attention needs to be centered on the integration of structural and

time-sensitive models in capturing asymmetry in price responsiveness and speed of adjustment (Capps and Sherwell, 2007). With this work on price spreads, we are in a better position to measure elasticities of price transmission from farm-to-retail, farm-to-wholesale, or wholesale-to-retail levels of the marketing channel. The identification of nonconventional determinants of price spreads such as food recalls, BSE outbreaks, and concentration also merits consideration (Dhoubhadel, Castillo, and Capps, 2009).

Understanding consumption patterns of selected demographic groups is a prime research topic to ensure successful marketing strategies. Examples include a focus on understanding consumption patterns of the Hispanic community; low-income populations; adolescent, pre-adolescent, and preschool children; and elderly populations 65–80 years of age, as well as those greater than 80 years of age.

The structure of processing, wholesaling, retailing, and food service sectors merits consideration on the research agenda. The share of food-at-home expenditures by type of outlet has changed remarkably over the past fifteen years. In particular, the share of food-at-home expenditures from nontraditional outlets (mass merchandisers predominantly) is roughly 40% today compared with 17% in 1994 (USDA). Yet, in conducting demand analyses for food and beverage products, often our data sources are limited just to supermarkets. For future research efforts, we should work with data from other marketing channels, convenience stores, mass merchandisers (Wal-Mart, Target), and drug stores (Walgreen's).

Moreover, additional research efforts in line with structural analyses of mergers and acquisitions in the food industry are in order. Emphasis should be placed on repercussions of increasing concentration in sectors of the food distribution industry and in evaluation of unilateral price effects of mergers and acquisitions. This research work involves interaction of industrial organization with demand analyses (Capps, Church, and Love, 2003).

Agricultural economists are in a prime position to make better use of information technology to improve decision-making in retail management and operations (Capps and Love, 2002). We

are adept at data mining—that is, extracting information to discover patterns and relationships in data. In this way, we may make contributions to managerial uses of point-of-sale (POS) data (Capps, Thomas, and Long, 1988). Examples include tailoring reports to management, providing sales forecasts for individual items or categories, evaluating the effectiveness of coupons, displays, or other promotions, and ascertaining own-price and cross-price elasticities. I still maintain, as I stated in the 1992 SAEA Presidential address, that the food distribution industry represents untapped clientele for agricultural economists (Capps, 1992).

Finally, the research agenda must include work on new product introductions, particularly those dealing with food irradiation, genetically modified organisms, organic food products, and food as medicine (e.g., phyto-sterols). The number of new food and beverage product introductions rose from roughly 10,000–20,000 over the period 1992–2006 (Economic Research Service, USDA). This area deals with willingness-to-pay experiments and experimental economics, understanding determinants of the acceptance of new products, and forecasting challenges associated with new products (Yuan, Nayga, and Capps, 2009).

Operationalization of a Work Plan to Conduct Research

Now, the remaining issue is the operationalization of a work plan to conduct research. To address the aforementioned research opportunities, it is important initially to make investments in market information—scanner data, data from government agencies (National Health and Nutritional Examination Surveys, BLS Consumer Expenditure Surveys, Current Population Surveys, and Behavioral Risk Factor Surveillance System). Second, emphasis needs to be placed on undergraduate and graduate education, particularly on understanding consumer economics, food marketing and industrial organization issues, the use of applied econometrics, fostering group problem-solving, and developing improved communication skills. Moreover, it is vital to develop

partnership opportunities with the private sector and to create internships for students.

Conclusion

The major deliverables include developing and expanding alternative methodologies to estimate the relationships among economic forces, demographic factors, consumer information, health and nutrition, and other factors on the consumption of food and beverage products, and to assess the importance of the myriad forces on the demand for food and consumption behavior. Bottom line, the set of research ideas and their operationalization ultimately will translate into increased benefits to the food industry, both tangible and intangible, relative to the increased costs incurred in carrying out the work.

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