The Future of Food Demand

Food Demand Analysis Implications for Future Consumption. By Oral Capps, Jr, and Benjamin Senauer (eds) Sponsored by the S-165 Southern Regional Research Committee and the Farm Foundation Blacksburg, VA Virginia Polytechnic Institute and State University, 1986, 292 pp, $15.00

Reviewed by Laura Ann Blanciforti

Two criteria are critical in judging empirical studies of demand. Do they provide a new understanding of the structure of demand? Do they furnish usable results for decisionmakers? Judged by the second criterion, this volume of articles only partly succeeds. Judged by the first criterion, the paths the authors follow are frequently familiar, although their studies do provide considerable insight. Basic to such analyses are the type and quality of data, the model specification, interpretation of results, and other empirical and theoretical problems.

Most of the leading researchers of food demand in the agricultural economics profession are represented among the 14 authors and 3 commentators. The collection of articles summarizes a 6-year effort by the Southern Regional Research Project (S-165). The S-165 project focuses on food demand analysis produced by members of U.S. land-grant college experiment stations. Editors Capps and Senauer present a seemingly coordinated research effort by the project members to develop a more complete theoretical and empirical analysis of food demand. The committee members believe that the structure of food demand is complex and knowledge about it is still far from complete. The work of refinement and improvement must continue for food demand analysis to be relevant.

The articles attempt to meet two objectives of the S-165 committee. The first objective is to investigate alternative analytical and theoretical models of household expenditures, consumer demand, and nutritional intake. The second is to investigate different ways of collecting


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and using current and new data sources on food consumption and nutritional intake

The articles are grouped into three major sections, each of which is followed by a commentary. The first section addresses methodology. It reviews the foundations of demand analysis and some of the relevant statistical tools. The second section explains food consumption patterns in terms of economic and sociodemographic characteristics, it also includes information on the elderly. The third section considers specific classes of food (beef, citrus, and convenience foods), optimal resource allocation, and market structure.

The first section focuses on understanding the structure of demand. Johnson and others, and C. Huang and Raumkar present a somewhat classical version of demand research. Both sets of authors present demographic scaling and translating as ways to understand changes in demand structure. Huang and Raumkar utilize survey data and group households by region and degree of urbanization. Johnson and his colleagues do not conduct any new empirical analysis. They coordinate and review theories, methods, and estimates from other studies.

In contrast, Wohlgenant and K. Huang and Haldacher provide two nonconventional approaches to demand analysis. Wohlgenant describes one of the frontier areas of demand research. Huang and Haldacher refuse to ignore the supply side, as is done by most economists in demand research. Wohlgenant focuses on the Fourier model, a flexible functional form only recently applied to demand analysis. He addresses some of the problems associated with satisfying the theoretical restrictions of consumer behavior and with making stable and unbiased elasticity projections. And, using Taylor series expansions, he presents simulation results for 1978–82.

Huang and Haldacher briefly review the theory of budget allocation and the effects of past supply, which helps us understand the market mechanism that consumers face. Their principal contribution is to establish a block recursive equilibrium model of food consumption. They model the market mechanism faced by consumers for three commodity groups: food at home, food away from home, and nonfood. They use quarterly time series data and make estimates to the year 2000.

The authors in this section focus on the implications of demand structure for forecasting. Buse emphasizes the changing structure of demand. He uses the 1972–73 Bureau of Labor Statistics' (BLS) Consumer Expenditure Survey (CES) and the 1977–78 U.S. Department of Agriculture's (USDA) Nationwide Food Consumption Survey (NFCS) to estimate the change in structure over time. Buse first estimates expenditures using a two-equation empirical model. He then disaggregates the effects of changing demand structure between the two survey periods into components accounting for population shifts, budget share changes, and other economic and demographic changes. His study highlights the problem of analyzing data from two different sources. The methodology is interesting, but the results could be strengthened by an update to a more recent period.

Both D.Z. Price and Schrimper focus on one population group, the elderly. Price applies psychological techniques to the understanding of nutrition and food consumption behavior of the elderly. A special survey of households in the Northwest was conducted (although the time frame of the survey is not given). Price's study is a refreshing approach to a difficult problem, and also meets both committee objectives. Additional empirical work and insights into individual differences in food consumption are sorely needed.

Schrimper's study is a nonmethodological, nontheoretical presentation of the evidence on food consumption behavior. He summarizes findings from the 1972–73 and 1980–81 CES and the 1977–78 NFCS to explain the expenditure behavior of the 55-and-older age groups for away-from-home food items.

In the third section, the authors show an interest in examining modern society with its increase in two-worker households and its desire for more leisure time. The authors of this last section include variables to represent female labor force participation, the use of convenience foods, and childless households.

The articles represent a thorough review of the current status of agricultural economic research in food demand. Many of the researchers use cross-sectional data from the CES and the NFCS. They use population data from the Census Bureau to supplement results and, in some cases, to make projections. Their studies are designed to explain household food spending and consumption patterns.

The editors make these reports accessible to researchers and newcomers to food demand analysis. Their volume is, thus, a convenient guide for students of food demand. However, students will have to delve deeply to find what they need. For researchers the book highlights many areas of inquiry both theoretical and empirical.

The book does show that food demand analysis is still far from complete, and it provides a good set of references from which to build. Understanding and integrat-
ing existing theories and methods and developing new approaches need to continue.

As with most regional research projects, the means became the end. No one methodology is portrayed as the best approach, and no definitive answers are given. Each chapter could stand alone as an incisive and persuasive piece of research. Yet, a book was created! A book was created in which readers are presented with an impressive array of analysis and which provided a foundation for understanding the structure of demand.

My main criticism is that the book should be made more useful to decision-makers. Of course, the structure of demand needs to be understood before projections can be made. But the information researchers find today generally proves to be the best indicator of the future. Many studies use cross-sectional data, presenting a portrait of demand behavior at a specific point. Most of these surveys were conducted prior to 1980 and are used here to forecast consumption to the year 2000. The results should have been updated, a presentation of the most recent picture of consumer behavior would be more valuable to decision-makers in making forecasts.

A fundamental weakness of the book is that it does not tie the research pieces together. How would a decision-maker use the results? For example, can one relate the average annual expenditure shifts in total food, food at home, and food away from home in Huang and Hadacher's study to those in Buse's study? Can Buse's results be related to Nyankori's? What have we really learned about changes in food-spending behavior? How do we know the analysis is usable?

The book portrays the members of S-165 as a diverse group of researchers working on their own special interests. Their knowledge, experience, and expertise are impressive. They have provided a wealth of empirical material on food demand research. Future research might well emphasize the usefulness of the results and their implications for decision-makers.

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