Eating Places as Food Marketers—Methods, Problems and Areas for Further Research

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Eating places market substantial quantities of food products and thus are important to food producers and distributors. They also constitute a unique marketing channel, because many services are sold along with food, thus increasing the costs of marketing. Moreover, quantities, types, and prices of food consumed in eating places are somewhat different from those prevailing in homes. Little if any previous research has been done on measuring the relative importance, costs, and other characteristics of eating places as distributors of food products. This article discusses the methods used and the problems encountered in a pilot study conducted in Minneapolis and Fairmont, Minn., and prepared under the Agricultural Marketing Act of 1946 (RMA, Title II); outlines the areas in which further research is needed; and suggests procedures for this research. Related problems for the United States as a whole are discussed in the article, “Distribution of Food Supply of the United States” by Marguerite C. Burk in this issue of Agricultural Economics Research. As the pilot study is based on a limited number of case studies and on estimated data, the findings are only tentative, or are indicative rather than conclusive. Detailed information as to objectives, methods, data, and limitations are contained in “Eating Places as Marketers of Food Products,” U. S. Dept. Agr. Marketing Research Rept. 3. (In press.)

This pilot study, like many others, was immediately faced with the need for detailed statistical data on the industry. In the first phase of the study, therefore, data were developed for Minneapolis and Fairmont as to the number and sales of eating places by type of operation. As eating places vary widely in extent of service offered, in price, and in type of financial sponsorship, it was necessary to have data on the number and sales of eating places classified in these three respects.

All establishments that serve prepared meals and lunches were defined in the study as “eating places,” and the following three main groups were set up to use as an approach to the problem of analyzing services, costs, and other aspects that were to be studied.

Street restaurants. Public commercial eating places whose primary business is serving cooked meals and lunches for profit, generally on the premises. These include table, counter, or combination service cafes, cafeterias, lunch counters, refreshment stands, caterers, and commercial in-plant feeding operations.

Auxiliary restaurants. Public commercial eating facilities combined with other business operations under a single roof, in which the serving of meals is not the primary business. These include hotel dining rooms, department and variety store restaurants, drug store fountain luncheonettes, railroad dining cars, and club dining rooms open to the public.

Private eating facilities. Away-from-home eating operations that are not generally open to the public but are set up to serve a particular group of people.

The 1948 Census of Business contains adequate data on sales and numbers of establishments for street restaurants as a group. But random-sample data and local observation were required to develop original estimates of sales and numbers of street restaurants by type, such as high-priced cafes (often serving alcoholic beverages), moderate-priced cafes serving full meals (often having both table and counter service), cafeterias, lunch counters, and other types. Census analyses of sales by merchandise line provided substantial data on sales of meals, in contrast to liquor, tobacco, and other items, by large street restaurants. But extensive estimating was necessary to develop data for small street restaurants and for all street restaurants by type.

Census data on merchandise-line sales by hotels, drug stores, drinking places, department stores, and other types of retail establishments provide substantial information on sales of meals by large auxiliary restaurants, but
Further estimating was needed for small establishments. No published data were available for private eating places. Original estimates were developed from direct data from major establishments in Minneapolis, such as private clubs, hospitals, the eating facilities of the University of Minnesota, fraternities, and sororities. Sales of boarding houses and lunchrooms for employees were estimated from random-sample data.

Many estimates were based on two 10-percent random samples of the Minneapolis industry drawn from a list compiled by the city sanitation inspection office. Every eating place in the two samples was visited by the writer to ascertain from brief observation the type of eating place, approximate sales volume, type of food, and so on.

A problem arose in the attempt to develop separate sales and cost data for table-service eating places in contrast to counter-service places. Such separation would be desirable because it is generally more expensive to serve customers at tables or booths than at counters. The high-priced cafes and hotels usually offer only table service and the cafeterias usually offer only cafeteria service, though exceptions to both may be found. The major group of medium-priced cafes typically offers both counter and table service, yet these cafes seldom maintain separate cost-accounting records for these types of service. This major group therefore could only be described as “medium-priced cafes with combination table and counter service, usually serving full meals (in contrast to short orders).”

Except as noted, the data developed were detailed enough for pilot-study purposes, but data based on larger samples or complete enumerations would be necessary before conclusive findings could be made.

Eating Places Second to Food Stores in Value of Food Marketed

As a second phase of the study, the proportionate importance of eating places in marketing the total food supply was measured. The value of the total food supply in Minneapolis and Fairmont, measured at the retail food store level or its equivalent, was computed and the proportion consumed through eating places was noted. This value proportion is also the approximate proportion of the physical quantity of food so marketed, although some differences arise from differences in the patterns of price and quantity of consumption in eating places compared with consumption in homes.

The largest part of the value of the total food supply is represented by food sold through retail food stores for home consumption. Data on such sales were taken from the 1948 Census of Business. At the same time, available information on sales by three broad commodity groupings was assembled for Minneapolis and Fairmont for comparison with the survey data. Estimates were made of total sales (analyzed plus nonanalyzed) for all food stores by applying the percentage distributions from the analyzed data to the nonanalyzed sales for each of the separate categories of food stores.

The next largest part of the food supply of urban areas consists of food that is sold in the form of prepared meals and lunches by eating places, both public and private. Gross sales by types of eating places in the two cities were estimated from data obtained from the 1948 Census of Business and other data developed in the first phase of the study. The purchase value of the food represented by these sales was estimated by applying the most appropriate average food cost percentages from the case studies in Minneapolis and Fairmont, respectively. This purchase value (essentially at wholesale, and excluding all services, such as cooking and serving) was then adjusted upward to the equivalent value for the same quantities of food bought at retail food stores. Case-study data provided a base for estimating the division of this equivalent value into the same three food groups as for food stores.

The third part of the food supply of urban areas consists of food consumed at home but not sold through retail food stores. This category includes food sold direct to householders by farmers and wholesalers, particularly eggs and fresh fruits and vegetables, and food produced in home gardens and consumed at home. Census classification of wholesale sales by type of customer provided some data regarding sales to consumers by wholesalers, but no data were
available as to sales by farmers to consumers or as to food produced in home gardens. Estimates were made by the writer but they are nothing more than informed guesses.

Finally, the value of food purchased by eating places from retail food stores was estimated and then subtracted from the total gross value of the food supply in Minneapolis and Fairmont. This was done in order to avoid double counting in the data regarding retail sales. Interviews with restaurateurs on buying practices of eating places provided rough data as to the percentages of purchases made at retail by three food groups. These percentages were applied to dollar purchases of all eating places, and the resulting amounts were subtracted from the total food supply.

The general methods used in measuring the role of eating places in the total food-marketing process are considered to be reasonably satisfactory but many problems relating to the development of more detailed and more reliable data are still unsolved.

Using the above methods, it was found that about 18 percent of the food supply in Minneapolis was marketed through eating places in 1948 and about 16 1/2 percent of the supply in Fairmont was so marketed.

Rate of Food Consumption in Eating Places

In the third phase of the pilot study, the average quantities of food consumed per person in 14 selected commercial eating places in Minneapolis were investigated. Original data were developed by tabulating detailed food purchases from invoices and adjusting for inventory changes. To obtain average food-consumption rates in five types of commercial eating places in Minneapolis, these quantities of food purchased were divided by the number of persons served. The rates were computed on a per person, per week, basis.

The chief problem here was to define a meal and a day's or week's consumption. For example, a between-meal cup of coffee should not be counted as an average meal, that is, as one-third of a person's daily consumption of food. Similarly, dinner at a high-priced cafe or hotel is probably more than one-third of a person's average daily food consumption. For these reasons, the average quantities of food consumed per person served are not strictly comparable among different eating places. Therefore, two types of consumption rates were computed for this study—one from quantities of food divided by the number of customers served on an unadjusted basis, the other by dividing quantities of food by an adjusted meal or customer count. Adjustments excluded small snacks or coffee, and allowed, so far as possible for varying emphasis of different eating places on breakfasts, between-meal snacks, and lunches versus full dinners. The adjustments were made on the basis of detailed analyses of customers served by time of day and size of check.

The fourth phase of the study concerns the percentage distribution of eating-place food purchases by 23 types of food products. Original data were collected from 20 eating places in Minneapolis and 12 eating places in Fairmont. There were no major analytical problems in this phase, but there was a tremendous quantity of data to collect and analyze from each eating place to be studied.

Functions and Costs of Eating Places

The fifth phase of the study relates to the functions and costs of eating places as marketing agencies for food products. The functions of eating places were enumerated and briefly described. Problems here included measuring the costs of performing particular functions and ascertaining whether the functions are performed efficiently.

Food, labor, and other costs are commonly expressed as percentages of sales at menu prices. Food-cost percentages are usually available from annual financial statements but labor cost percentages are difficult to obtain. Food costs of 20 Minneapolis firms in the case study averaged 44 percent of total sales in 1949; the average for the firms in Fairmont was 52 percent.

Several problems are found here, one of which is the unavailability of separate cost data in regard to sales, food, and overhead for combination operations, such as table-and-counter service cafes. Another is to identify accurately the differences in reported costs with respect to functions performed. This is important because labor costs may be shifted into food costs by buying highly processed food, or...
Many of the problems faced in this study are of the kind that are to be expected when a new type of study is made in an industry that consists of a large number of establishments, many of which are small and independently owned, and most of which are confined to operations on their own premises and are primarily service establishments at the retail level. It was difficult to get permission to make individual case studies, but after permission was given, the working relations were usually excellent.

Areas for Further Research

The preceding pages of this article have indicated many undeveloped areas of knowledge of the public-eating-place industry. These are areas in which basic information may be lacking or available information needs to be assembled and brought to focus on particular problems and areas in which economic analysis can contribute to greater comprehension of the marketing problems of the industry and possibly to ways of meeting them.

Census reports give considerable data that could be used when studying differences and similarities of eating places in other cities and towns and to compare them with the industries in Minneapolis and Fairmont, and with national averages. Such studies might cover the composition of the total eating-place industry in each area, the average sales volume of the firms, the average number of firms per capita, and average sales of meals per capita (based on resident populations). From past Census data supplemented by data in the national-income series, rough estimates can be made as to the changing historical role of food consumption away from home.

The whole field of the private eating-place industry is remarkable for the lack of information as to its magnitude and its over-all characteristics. No consumer-purchase studies have ever included such public and private institutions as hospitals and asylums. Census reports do not cover sales of private clubs and other such establishments. These may account for 3 or 4 percent of the total food marketings of the country. In the aggregate, they do not appear to be significant, but they may be major outlets for particular types of foods or in particular geographic areas.
The section of this study which deals with sources of food supplies is little more than an introduction to a fertile field for research. At least three types of studies could be used to assemble basic information: (1) Food distributors could be surveyed as to the qualities, varieties, quantities, prices, values, and extent of processing of food sold to the major types of public eating places. (2) Further analysis could be made of existing census data on wholesalers' sales or deliveries, by classification of customer, and possibly of other census wholesale data to estimate, from the wholesale level, the proportion of the total food supply moving through public eating places. (3) Analysis of further case studies of randomly selected eating places as to exact status of suppliers could provide additional data as to quality and price differentials to eating places who buy in wholesale units.

Information regarding food costs of public eating places is important to individual restaurateurs, farmers, food distributors, and consumers. There is a great need for up-to-date detailed data from all parts of the country. Inquiries made in the course of this study indicated that most public eating places paid more for the food they used than the wholesale prices that were charged the retail stores for similar food, but that they paid less than the prices charged to household purchasers who bought at retail. Further study of these prices and the reasons for them are fruitful fields for research. Moreover, additional analyses might be made of the economies in purchasing food that could be realized by eating places if they bought in large containers. This could be done by an extension of the process carried out in the pilot study, in which price quotations were obtained from one supplier for identical food sold in institutional and in household sizes.

A current source of data on food costs used in the pilot study could be investigated more thoroughly. This source is the regulations as to margins of the Office of Price Stabilization and the reports made by firms to that agency. Such investigations would provide additional information on the differential margins allowed wholesalers who supply the industry, and possibly it would provide information regarding other suppliers.

Food wastes after food is delivered at the restaurant door are related to food costs. A study carried on at the University of Minnesota involves the separation of kitchen trimmings into four containers and the separation of plate waste into seven containers. The contents were noted and weighed, and the quantities of these two types of waste were expressed as percentages of the relevant total quantity of food used. Such studies of wastes might well be undertaken by individual firms, to find possible ways of minimizing their wastes, to ascertain relative advantages of particular forms in which they can buy food, and to discover customer disapproval of particular dishes, size of portions, and other information. A substantial amount of data on cooking and trimming losses has been published in certain quantity-recipe manuals that specify both purchased weights and yields, such as the Wenzel and Treat-Richards books.

Other costs of the eating-place industry merit further attention. A more detailed break-down of cost information, such as accounting firms probably develop in their consultations with large establishments in the industry, would be helpful in evaluating costs of particular services of restaurants. Time and motion studies would be useful in analysis of labor costs. It might be well to learn the extent of subsidy in the form of space and other services that such firms as department stores make to their auxiliary restaurants.

Consideration might also be given to analysis of the efficiency of the eating-place industry as a whole. This pilot study has considered the efficiency of individual firms in the industry on the basis of available data. Further study of the efficiency of firms based on time and motion studies and complete cost analyses might be fruitful. When more is known concerning the relative efficiency of the various types and sizes of firms as to advantages in buying in large containers and in wholesale quantities, and as

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1 EATING PLACES AS MARKETERS OF FOOD PRODUCTS. Marketing Research Report No. 3, 1952. Appendix G.

2 WENZEL, G. L. WENZEL'S MENU MAKER. 1947, p. 16.

to utilization of labor and fixed facilities, further studies as to the efficiency of the entire eating-place industry could be carried on to arrive at an over-all evaluation and possible ways of improving the general efficiency of marketing.

Discussion of the rates of purchase of major foods by type of firm and average consumption per customer raises several questions. One is the extent of consumption of dairy products in such establishments as fountains, dairy lunches, and amusement places. Another is the need for further experimentation in the estimation and analysis of rates of consumption in public eating places. This should include the refining of concepts and methods, and ascertaining what relation might normally be expected among the rates of food consumption for the whole country, and for the households of farmers and for eating places on the basis of known differences in the basic groups involved. Knowledge of these topic areas would be particularly aided by additional case studies for other parts of the country. Measurement of the extent of restaurant eating by farm people is needed in order to analyze the relations among the proportions of away-from-home consumption in farm areas, villages, small and large cities, suburban areas, and combination areas such as States or the entire country. This would involve analysis of customers at eating places by residence—city residents, country residents, and travelers—and possibly by other classifications. The extent of restaurant eating can also be evaluated from consumer-purchase studies but special care is needed to assure complete reporting of away-from-home expenditures for food.

In the process of estimating the proportion of the food supplies marketed by eating places in the two cities, several assumptions and approximations were necessary. The study used an indirect value measure which is appropriate for general purposes, but investigation as to other methods of measuring the proportion of the food supply marketed through eating places might be made. A direct quantitative measure by detailed food groups would be useful, such as the proportion of “U.S. Prime” beef marketed through eating places. Studies of consumption of food in homes and in eating places conducted concurrently would provide directly comparable data for evaluating differences between home and away-from-home consumption. Such studies of home food consumption would need to be more inclusive than “family households,” however, in order to measure all types of home consumption. Consumption rates from such concurrent studies could then be weighted by population data and customer count to provide an independent measure of the proportion of food marketed through eating places.

Limitations of This Study

Finally, it should be emphasized that many of the data and much of the supplemental information utilized in the development of the pilot study are indicative rather than conclusive. The two cities studied cannot be regarded as representative of other cities. The number of firms covered in the classification and management surveys was probably satisfactory to characterize the industries in these two cities, but not elsewhere. Additional case studies of each major type of establishment are necessary to provide sufficient observations to analyze costs, patterns of food purchase, and rates of food consumption with a reasonable degree of statistical reliability and to evaluate by statistical means the differences among types of firms and among areas of different sizes, economic make-up, and geographic location.

Procedure for Further Field Studies

The preceding analysis of areas for further research has included many topics suitable for research by individuals and research organizations based primarily on existing data, such as those collected by the United States Department of Commerce, the United States Department of Agriculture, and the Office of Price Stabilization.

The following section relates to suggested procedures for carrying out major field research where original data on operations of eating places are to be collected.

Further field studies of food marketing by eating places along the same general lines as the case studies conducted in Fairmont and Minneapolis are desirable. The following sug-
gestions as to procedure have been revised and expanded in the light of experience.

1. Select cities or areas in which the maximum amount of census and other data is available, either in published form or by special tabulation, and in which other comparative studies have been made, such as the home food-consumption studies. Use metropolitan areas with only one major city because then the various tabulations of the metropolitan area are directly useful. Data for large cities have the advantages of greater detail and include fewer cases in which data are withheld to avoid disclosure; but data for small cities are more adaptable to detailed estimating where necessary. Studies are needed, however, in all sizes and types of cities in every major geographic area.

2. Discuss plans with the national, State, and local restaurant associations. Try to collect information that will be useful to both the project and the associations if possible, and request their support. The findings of this study should be helpful.

3. Collect data on the local industry from all possible sources, including census data, sanitation-inspection agencies, local associations, direct observation, and random-sample data, particularly in large cities. Brief classification schedules from randomly selected firms will be extremely useful in determining major strata within the industry.

4. Conduct interviews on buying and management practices at the same time the random-classification schedules are collected.

5. Select individual eating places in which to make detailed case studies of sales, costs, purchases, inventories, customers, and so on, for a test period of, say, a month. These individual eating places should be randomly selected within predetermined strata in order to permit statistical estimation of totals from the case studies. Probability selection proportionate to size could well be used here.

Advance consideration should be given to the possibility that a randomly selected firm will refuse access to its records. In this case, it may be possible to gain permission by citing association approval and in other ways explaining the legitimate purposes of the project and the confidential nature of records of individual firms.

One refusal was withdrawn after the proprietor saw the paragraph in the research contract to the effect that confidential arrangements entered into by the researcher would be respected. The large establishments were generally more cooperative than the small ones, so that substitution for a large firm is less likely to be necessary if good support has been obtained from the industry. If a small eating place refuses, it would be relatively easy to substitute a similar eating place, and less violence will be done to random selection than if a large and relatively unique eating place were involved in a substitution.

Explanation should be made at the outset that relatively little if any extra effort will be required of the firms who are asked to cooperate in case-study analyses. Complete data on purchases are always available from existing invoices; inventories are regularly taken by many firms, but they can be taken by study personnel if necessary; data on sales, food costs, and labor costs for past annual periods can almost always be drawn from existing records; the number of customers served and value of meal checks by time of day or meal period are usually available in large establishments and if not, they can be easily collected in any establishment by arranging for the management either to keep all meal checks (separated by serving period) or to note the serving periods on cash-register tapes while being careful to ring up only one person’s check at one time.

The writer believes that probability selection of case-study eating places is desirable and is possible at this time with wholehearted support of the local restaurant industry.

6. Actual collection of case-study data involves the following phases:

a. A period must be selected for the detailed analysis. One-month periods are believed to be both practicable and adequate, but consideration should be given to collecting data for one month in each of four quarters of a year. General indications are that seasonal changes are relatively unimportant in purchase patterns of eating places but quantitative data would make it possible to evaluate these indications.

b. Arrangements must be made with each firm in advance of the test period to take beginning and ending inventories, if the firm does...
not regularly do so; to have the firm note descriptive information about food purchased from suppliers such as retail supermarkets that give only cash-register tickets rather than detailed invoices; and to have the firm keep customer-count records if it does not already do so. Most large firms have all these data by months, and in such cases advance arrangements are needed only to assure cooperation and to verify by personal inspection that record procedures are adequate for analysis.

c. Detailed data can be copied from the firm's records after the test period has passed. Data on food purchases come from invoices or stock record cards. Data should include units of purchase, quantities purchased by date; the price paid for every purchase; the vendor; complete information as to type, form, extent of processing, and quality. The recording of quantities purchased by date indicates patterns of purchase that are an aid in checking for completeness. At least part of the sales and customer-count data should be in full detail, as from meal checks or cash-register tapes, so an analysis can be made of average check size by serving period, and so that adjustments to exclude coffee items can be made. Sales, number of meals, and types of meals served to employees should also be obtained. Food and labor cost percentages for both the current and the base periods, should be obtained. Other cost percentages and the profit percentage may not be freely available, and can be dispensed with for many purposes. The largest firms in Minneapolis involved 2 weeks of concentrated effort for collection of data, exclusive of advance arrangements, detailed analyses, and callbacks for supplemental information. Data for a few of the smaller firms, however, were collected in a day and a half.

7. Analysis begins with organizing the data on beginning inventory, purchases, and ending inventory for every detailed item of food purchased and/or used. Net consumption is computed for each item, the items are grouped and converted where necessary, and computations are made as described earlier in this article and in the publication cited on page 92 of this issue. Many supplementary analyses can be made from these data, such as sources of supply by type of food, extent of processing, price level, quality level, and wholesale or retail form.