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The Commodity Implications of Expansion
of Sales of Food Away From Home

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A. Desmond O'Rourke 1/

ABSTRACT

The relative increase in expenditure on food away from home at the expense of the at home market has been well documented. However, little work has been done on the differential impact of this shift on agricultural producers, processors and marketers in different locations and faced with different marketing institutions. This paper reports on the changing impact of the away from home phenomenon on major commodity groups, processed products and institutional sales. It appears that the manner in which the away from home market has evolved has had significant impact on many commodities, products and their respective producers and processors.

1/ A. Desmond O'Rourke is Associate Professor, Department of Agricultural Economics, Washington State University, Pullman, WA. Dr. O'Rourke has a B.A. in Classics from Queen's University, Belfast, a B.A. in Economics from University College, Dublin and a Ph.D. in Agricultural Economics from the University of California, Davis. In his 10-year career at Washington State University he has published one book and numerous journal articles, bulletins, circulars and other professional publications.

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by A. Desmond O'Rourke 1/

Introduction

The market for food away from home in the U.S. has grown more rapidly than that for food for consumption at home in the last quarter century. Many economists have examined the causes and progress of the phenomenon, or sought to predict future trends--for example, Abdel-Ghany and Bwens, Douth, Hiemstra and Eklund, Johnston, Le Bovitt, O'Rourke, Prochaska and Schrimper, Sexauer, and Van Dress and Freund.

However, of equal importance for individual farmers, food processors, shippers and other commodity marketing specialists is the differential impact of increased eating of food away from home on the quantity and price of products demanded, and on the marketing channels and institutions with which they must deal.

Characteristics of the Away From Home Food Market

From the point of view of producers and processors, the food away from home market can be distinguished from the food at home market on a number of important characteristics. Firstly, most food for consumption at home is purchased through large supermarkets. In general, further effort, time and cost is required on the part of the homemaker before the food can be consumed. In contrast, food consumption away from home takes place in many

¹Associate Professor, Department of Agricultural Economics, Washington State University, Pullman.

types of establishments in almost every locality throughout the U.S. Food preparation, atmosphere, serving, clean-up, etc., are taken care of by the eating establishment, so that the cost of food includes the cost of all these added services. Thus, a dollar spent on beef (or any other food product) in a retail supermarket cannot be compared directly with a dollar spent on beef in a restaurant, because of the different mix of services involved. As a corollary, a dollar spent on food away from home will in general return less to the primary producer than a dollar spent in a retail grocery supermarket.

Secondly, most food products in retail supermarkets are sold in standardized, branded containers. In a sense, the purchaser is presold on a given product by the media advertising or other promotional efforts of the food processor and can trace back to that source any complaints about quality or value for money. To some extent, retailers have attempted to offset these direct links between processors and consumers, by promoting store or private label brands. In contrast, the restaurant where the consumer eats away from home itself becomes the guarantor of quality or value for money, and the consumer cannot normally have any contact with the initial source of supply. Thus, as expenditure on food away from home has grown, consumer contact with food processors has been eroded, and that with producers has become even more tenuous.

To further complicate this issue, chains of restaurants, particularly fast food chains, have grown rapidly in the last two decades. They have been able to use national media advertising to presell consumers on the quality, price and service package that they offer. As their share of total food sales has grown they have become more crucial as interpreters of consumer demand. For example, McDonalds and other other leading fast food

chains, by specifying the length, diameter, color and texture of frozen french fries they will buy can influence the varieties grown, the method of processing and packaging, the location of production and processing, etc.

In turn, neither the traditional retail grocery supermarket nor the modern fast food restaurant chain, has been immune from the powerful forces of change affecting American dietary habits. Concerns about health, fitness, waste, food additives and nutritional deficiencies, for years propounded by medical, consumer protection, food nutritionists and other private groups, are now being formalized in government educational and regulatory programs. These concerns are even more indirectly translated back to the primary producer.

Away From Home Expenditures by Commodity Groups

The trend to away from home expenditures on food has not been felt uniformly across commodities. A U.S. Department of Agriculture series reporting such expenditure by major commodity groups since 1963 throws interesting light on the differential impact both at the retail and at the farm level (Table 1). Overall, reported consumer expenditure on food away from home tripled between 1963-64 and 1976-77. The farm value of that expenditure increased by 2.85 times. Thus, farm value as a proportion of consumer expenditure on food away from home slipped from 19.9% to 18.6%. Consumer expenditure on meat products, fruits and vegetables, bakery products and miscellaneous products rose more rapidly than average, while expenditure on poultry, dairy and grain mill products lagged.

The share of total food expenditure on each commodity group in away from home outlets also changed over the period studied. In 1976-77, a greater percentage of consumer expenditures on meat products was made away from

Table 1. Consumer Expenditures for, and Farm Value of, Food Consumed Away From Home by Major Commodity Group, U.S. Annual Averages, 1963-64 and 1976-77.

Commodity Group	Consumer Expenditures		Farm Value	
	1963-64	1976-77	1963-64	1976-77
	(million dollars)			
Meat products	7054	22526	1760	5327
Poultry products	1576	4007	257	613
Dairy products	3297	8171	722	1758
Fruits & vegetables	1884	6304	528	1371
Grain mill products	386	1028	23	42
Bakery products	1956	6490	155	360
Miscellaneous products	2377	7882	235	1019
Total	18530	56408	3680	10490

Sources: 1963-64 data--U.S. Department of Agriculture, Marketing and Transportation Situation, August 1975.

1976-77 data--U.S. Department of Agriculture, Agricultural Outlook, miscellaneous issues.

home than on any other category; bakery, poultry, dairy and miscellaneous products came next with about one-third of expenditure being away from home; and fruits and vegetables and bakery products were lowest with 17-18 percent (Table 2). However, since 1963-64, bakery products had made the biggest absolute gain, and fruits and vegetables the biggest relative gain.

Farm value is a good indicator of the volume of product sold in at home and away from home outlets. In terms of farm value, only one quarter of meat and less than 20% of all other categories represented food away from home (Table 2). In comparison with expenditures on food at home, a much higher proportion of consumer expenditures on food away from home go to services provided by the nonfarm sector and are not returned to farmers for their raw product. While the proportion of farm value accounted for by food away from home rose for all categories between 1963-64 and 1976-77, the rate of increase was much less than for consumer expenditures, suggesting that real marketing costs expanded during that period.

A further interesting sidelight on these data is that while meat products accounted for almost 40% of the retail value of consumer expenditures on food away from home in 1976-77, they accounted for just over 50% of the farm value. Dairy products and fruits and vegetables accounted for a slightly higher proportion of farm value than of consumer expenditures, but poultry and miscellaneous products showed a lower, and grain mill and bakery products a sharply lower, proportion of farm value of food away from home. Thus, while each dollar spent on food away from home yields less at the farm than a dollar spent in the traditional grocery trade, poultry, grain and miscellaneous product producers fare even worse than average.

Finally, the USDA data distinguished between expenditures away from home in institutions (hospitals, schools, etc.) versus public eating places

Table 2. Away From Home Food Expenditures as a Proportion of Total Food Expenditure at Consumer and Farm Value, By Commodity Group, U.S., 1963-64 and 1976-77.

Commodity Group	Consumer Expenditures		Farm Value	
	1963-64	1976-77	1963-64	1976-77
	Away from home as percent of total food			
Meat products	33.7	42.4	19.6	24.9
Poultry products	27.2	30.5	8.9	9.6
Dairy products	25.8	30.8	14.6	15.8
Fruits & vegetables	11.3	17.0	13.4	15.8
Grain mill products	14.4	17.8	4.2	4.7
Bakery products	24.9	34.9	13.3	15.9
Miscellaneous products	26.0	31.2	11.7	16.5
Total	24.5	31.5	15.0	18.4

Source: See Table 1.

(restaurants, lunchrooms, etc.) The really big gains have taken place in public eating places which increased their share of total food expenditures from 19.0% in 1963-64 to 25.2% in 1976-77. The share held by institutions grew more slowly, from 5.5% to 6.3%. In terms of farm value, the changes were 11.7% to 14.5% for public eating places and 3.3% to 3.9% for institutions. Farm value data give a much better perspective on the importance of different types of away from home food outlets to commodity producers. Public eating places are major markets for meat products as shown in Table 3. However, dairy products, fruits and vegetables and grain mill products have fared relatively better in institutions than in public eating places.

It is difficult to relate the USDA expenditure trends to data on the changing structure of the away from home food industry available from census and survey data. However, the growth in expenditure in public eating places appears to reflect growth in discretionary meals and snacks away from home as opposed to meals in institutions which are dictated by one's job, school, medical care needs, etc. In addition, the stronger growth in certain commodities appears to be linked to the growth of hamburger, roast beef, chicken, dairy and other fast food specialties.

Away From Home Demand for Selected Commodities

No known published series details trends in demand for individual farm commodities in the away from home market. We can, however, get some indirect indications from per capita consumption trends or processing statistics on products known to be used heavily in the away from home market. The two most notable examples of changes in per capita consumption are frozen potatoes which have increased from an annual average of 2.5 lbs. in 1955-57

Table 3. Expenditure in Public Eating Places and Institutions as a Proportion of Total Food Expenditure at Retail and Farm Level, by Commodity Group, U.S., 1976-77.

Commodity Group	Consumer Expenditures		Farm Value	
	Public Eating Places	Inst's.	Public Eating Places	Inst's.
	Away from home as percent of total food			
Meat products	35.8	6.6	20.8	4.1
Poultry products	25.1	5.4	7.8	1.8
Dairy products	22.5	8.3	11.1	4.7
Fruits & vegetables	11.6	5.4	10.6	5.2
Grain mill products	12.4	5.4	3.3	1.4
Bakery products	28.7	6.2	12.9	3.0
Miscellaneous products	25.9	5.3	13.6	2.9
Total	25.2	6.3	14.5	3.9

Source: See Table 1.

to 16.9 lbs. in 1965-67 and 36.5 lbs. in 1975-77, and soft drinks which have grown from 12.1 to 20.4 to 30.8 lbs. per capita in the same periods.

The National Food Processors Association, formerly the National Canners Association, has published detailed pack statistics for many products for over a decade. It is possible to separate institutional packs from consumer packs in these statistics. The average annual institutional pack of a large number of vegetables, fruit and salmon for 1965-67 and 1975-77 are shown in Table 4. The dominant product in institutional packs in both periods was frozen potatoes. Its sales almost tripled within the decade. Most other major frozen items in 1965-67, except green beans and carrots, showed declines by 1975-77. In contrast, the minor frozen items, onion rings, asparagus, broccoli, cauliflower and squash showed spectacular percentage increases as a result both of advances in freezing technology and changes in demand. The results for canned products were equally varied. Four of the leading canned items in 1965-67, tomatoes, potatoes, pears and beets increased in the next decade, but applesauce, green beans, cut corn and green peas all declined. Of the minor canned items, only the canned juices, apple and tomato, increased.

A further indication of the importance to a product of the away from home market is the proportion sold in institutional packs. In general, less than one-third of most canned items are sold in institutional packs. Only potatoes, applesauce, pears, beets and carrots regularly approach this level, with no major change in percentage of institutional packs over time. In contrast, well over half of frozen potatoes, apples, green peas, asparagus, onion rings and carrots has been in institutional packs. The increase in share of institutional packs has been marked in the case of frozen onion rings, asparagus, broccoli and cauliflower, while the percentage for frozen

Table 4. Institutional Pack of Selected Vegetables, Fruit and Salmon, U.S. Annual Average 1965-67 and 1975-77

		<u>1965-67</u>	<u>1975-77</u>	<u>% change</u>
		(million lbs.)		
Potatoes	Frozen	818	2,274	+ 178.0
	Canned	47	74 ⁴	+ 57.4
Apples	Applesauce, canned	125 ¹	113 ⁵	- 9.6
	Frozen	95	76	- 20.0
	Apple juice, canned	51	13	+ 160.0
Pears	Canned	97 ²	132	+ 36.1
Greenbeans	Frozen	82	90	+ 9.8
	Canned	372 ²	314	- 15.6
Cut corn	Frozen	164	123	- 25.0
	Canned	251 ²	224	- 10.8
Green peas	Frozen	251	188	- 25.1
	Canned	188 ²	154	- 18.1
Beets	Canned	88	106	+ 20.5
Tomatoes	Canned	289	451	+ 56.1
	Canned juice	11	15	+ 36.4
Onions	Frozen	9	5	- 44.5
	Frozen onion rings	5 ²	50	+ 900.0
Asparagus	Frozen	3	12	+ 300.0
	Canned	18	7	- 61.1
Broccoli	Frozen	4	75	+1775.0
Carrots	Frozen	106	128	+ 20.8
	Canned	82 ¹	68	- 17.1
Cauliflower	Frozen	2	29	+1350.0
Squash	Frozen	4 ³	9	+ 125.0
Salmon	Canned	5	2	- 60.0

Source: National Food Processors Association.

1 1967 only; 2 1968 only; 3 1966-67; 4 1975 only; 5 1975-76.

apples, cut corn, green peas, onions, carrots and squash has declined since 1965-67. Away from home food outlets tend to favor products which can be handled in bulk, portion-controlled, rapidly served and satisfy customer concerns about taste, diet and health. Clearly, tastes and technologies developed in institutional markets can be rapidly transferred to at-home markets and vice versa, so one must be wary of projecting trends in the last decade in particular commodities naively into the future.

Further Research

The next stage in our research will involve efforts to accumulate better data series and develop more refined projections of the alternative demand for specific commodities of interest in at home and away from home markets. It is clear that traditional farm- or retail-level demand information is not adequate for this task. However, since differential impacts of increased away from home eating on various commodities and products is likely to persist, obtaining appropriate data may be vital if marketing economists are to continue to serve their traditional clientele groups effectively.

References

- Abdel-Ghany, Mohamed and Gordon E. Bivens. "Expenditures for Food Away From Home." Paper presented at the annual meeting of the American Agricultural Economics Association, College Station, Texas, August 1974.
- Doutt, Jeffery T. "Productivity in Fast Food Retailing." Unpublished Ph.D. dissertation, University of California, Berkeley, 1976.
- Hiemstra, Stephen J. and Helen M. Eklund. "Food Expenditures in 1960-61," U.S. Dept. of Agriculture, ERS, National Food Situation, Washington, D.C., Aug. 1966, pp. 37-47.
- Johnston, Richard S. "Some Structural Changes in the Food Service Industry," in Walter G. Heid, ed., The U.S. Food Industry: Description of Structural Changes, Vol. 1, Colorado State Univ., Tech. Bull. 129, 1976.
- LeBovit, Corinne. "Expenditures for Food Away From Home," U.S. Dept. of Agriculture, ERS, National Food Situation, Washington, D.C., Nov. 1967, pp. 42-48.
- National Food Processors Association. Canned Food Pack Statistics, annual.
- O'Rourke, A. Desmond. Away From Home Food Markets. Northwest Agricultural Development Project, Report No. 8, Vancouver, Washington, January 1980.
- Prochaska, Fred J. and R.A. Schrimper. "Opportunity Cost of Time and Other Socioeconomic Effects on Away-From-Home Food Consumption," Amer. J. Agr. Econ., Vol. 55, No. 4, Part 1, Nov. 1973, pp. 595-603.
- Sexauer, Benjamin. "The Effect of Demographic Shifts and Changes in The Income Distribution on Food Away From Home Expenditure," Amer. J. Agr. Econ., Vol. 61, No. 5, Dec. 1979, pp. 1046-1057.
- U.S. Dept. of Agriculture. Agricultural Outlook, ESCS, Washington, D.C., miscellaneous issues.
- _____. Marketing and Transportation Situation, ERS, Washington, D.C., Aug. 1975.
- Van Dress, Michael G. and William H. Freund. The Food Service Industry: Its Structure and Characteristics, 1966. U.S. Dept. of Agriculture, ERS, Sta. Bull. No. 416, Washington, D.C., Feb. 1968.