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THE FOOD SERVICE INDUSTRY: ITS ANATOMY AND PROGNOSIS

Uel Blank



Department of Agricultural and Applied Economics

University of Minnesota
Institute of Agriculture, Forestry and Home Economics
St. Paul, Minnesota 55108

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by

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This paper examines systematically the dynamic interrelationships between food services and the community of which they are a part. The primary focus is the commercial restaurant component. In the macro dimension - where food service patterns are examined against the overall U.S. economic and social fabric - they will be seen not only to reflect, but also to magnify, the vicissitudes of national moods. At the local level this analysis highlights their function as an essential component of the modern community.

Such analysis is necessary because unfortunately food services, in common with the entire range of hospitality services, continue to suffer from misunderstanding. Much of the society views them as not "essential" or at best their role is drastically underestimated. Part of this attitude is an extension of 19th century thought that places value primarily on tangible production and views services as "producing nothing". Further there is a lingering Calvinistic guilt that pleasure production is sinful and should not be indulged.

In actuality, those who are engaged in food service, from manager to bus boy/girl, can take pride in the industry of which they are a part. The modern economy and current life styles could not exist without it. Further, it appears destined to play an even more prominent role in the future.

Community developer/leaders have an obligation to understand and help others understand the productive output of food services to living quality,

* Based on a paper originally delivered to the World Hospitality Congress, Boston, Massachusetts, March 1981.

tourism and in support of other industry. In producing its output, food service is a major factor in retail sales, employment and the development of secondary supplier industries. Thus, like most other economic activities, it directly and indirectly generates jobs, profits, rents and tax base for the community.

FOOD SERVICES AND THE U.S. ECONOMY

The last half-century of food service development in the U.S. shows a dynamic interaction not only with the economy, but with technology and with evolving life style patterns - the way we live, work and play. Food services in some dimensions even exaggerate variations in these overall trends.

Table 1 gives a half century perspective by comparing purchases of food away from home with disposable income. Throughout the period the proportion of disposable income spent for food away from home averaged about five percent. But it varied - growing rapidly in the 1930's and early 40's, then declining until about 1970 and increasing at an increasing rate through the 1970's.

In Table 1 the two right hand columns give the income elasticity of demand (YE) for purchased food and beverages. YE expresses the relative change in food purchased away from home compared to relative changes in disposable income. A $YE = 1$ means that relative changes in food purchased exactly match percentage changes in income. When YE is positive and larger than 1, purchases of meals away from home are growing as a proportion of disposable income. When YE is smaller than 1 the proportion is declining.

What was taking place to cause these changes in emphasis upon purchases of food away from home? The key factors can be outlined as follows:

--- Despite the depression of the 1930's many of the consumer trends established in the post World War I 1920's decade resumed after 1933.

This especially included growth in use of automobiles, expansion of the

Table 1. The Relationship of Purchased Meals to Disposable Personal Incomes in the United States; A Half-Century Pattern 1930-1977.

| <u>Year</u> | <u>Purchased Food & Beverage</u> <u>(\$ billion)</u> | <u>Disposable Personal Income</u> <u>(\$ billion)</u> | <u>Purchased Food as Percent of Disposable Personal Income</u> <u>%</u> | <u>Income Elasticity (YE)</u> of Demand for <u>Purchased Food & Beverage</u> | |
|-------------|---|--|--|--|-----------|
| | | | | <u>Period</u> | <u>YE</u> |
| 1930 | 2.78 | 74.5 | 3.7 | 1930-35 | 0.27 |
| 1935 | 2.61 | 58.5 | 4.5 | 1935-40 | 1.54 |
| 1940 | 3.89 | 75.7 | 5.1 | 1940-45 | 1.09 |
| 1945 | 9.50 | 105 | 6.3 | 1945-50 | 0.49 |
| 1950 | 11.1 | 207 | 5.4 | 1950-55 | 0.79 |
| 1955 | 13.8 | 274 | 5.0 | 1955-60 | 0.88 |
| 1960 | 17.2 | 352 | 4.9 | 1960-65 | 0.92 |
| 1965 | 22.7 | 473 | 4.8 | 1965-70 | 0.88 |
| 1970 | 31.5 | 669 | 4.7 | 1970-75 | 1.01 |
| 1975 | 50.2 | 1,063 | 4.7 | 1973-77 | 1.22 |
| 1977 | 62.8 | 1,273 | 4.9 | | |

Source: Historical Statistics of the United States, Series G416-469.

highway system and hence increased travel away from home. The repeal of prohibition added a further impetus during the mid-1930's. Travel greatly accelerated in the early 1940's as the nation prepared for and engaged in World War II. Hence relative growth in food consumed away from home.

- Another set of factors became dominant in the 1945 to 1970 era. Perhaps the most important was the great expansion in the birth rate requiring attention to care and nurture of families. Concurrently with and closely related was a boom in education at all levels. It was also mandatory that the nation catch up in housing which had seen only limited growth for a decade and a half. In addition, medicine received a disproportionate share of expenditures. These big ticket family consumption items partly displaced expenditures for food and beverage away from home. The latter grew, but at a slower rate than disposable incomes.
- Now, in the last decade, expenditures for away-from-home food and beverage have resumed their relative growth pattern. This resulted from still another set of factors. The baby boom grew up. There is now a relatively large number of teenagers and young adults in the population - with spending power and a strong propensity to spend for immediate consumption. Reinforcing this is the steady growth of married women in the work force - meaning that a high proportion of households have two wage earners - and no-one at home to prepare meals. Matching demand growth has been the supply response. Part of it is technological in that attractively-consumable food items can be widely available both in terms of time and geography. Another aspect of demand growth is in the expansion of specialized outlets, partly reflected by "places of refreshment" which are discussed below. Thus it is probable that

Say's Law^{*/} was operating along with direct growth in demand variables to produce relative expansion in food consumed away from home.

U.S. Census of Business data for the 1976 to 1977 decade, shows the dramatic relative growth in sales of U.S. eating and drinking places, Table 2. In this period U.S. retail sales more than doubled (in current dollars), growing by 133 percent. But sales of eating and drinking places outpaced even this - they grew by 165 percent.

Food away from home has a large component of personal service. For this reason employment measures show food services' economic contribution to be even greater than sales alone would indicate. The employed civilian work force grew by 22 percent in this 10 year period; eating and drinking employment expanded by 71 percent.

Shifts within the food service types reveal another dimension of industry dynamics. In the same 10-year 1967-1977 period noted above, both sales and employment of places of refreshment grew at almost three times the corresponding rate for sales and employment of all eating and drinking places. Growth was a whopping 472 percent for sales and 219 percent for employment. Places of refreshment are limited menu places corresponding roughly to convenience food services. Their growth further documents adaptation to changes in demand - rapid growth in new away-from-home food consumers, including teenagers, young adults and upwardly mobile socio-economic population segments; plus rapid general expansion in the sales of modest level ticket items.

Perhaps the most exciting and useful aspect of this look at inter-relations with the macro society comes from a look into the future. Let's

^{*/} Say's Law postulates: Supply creates its own demand. This is the basic principle of supply-side economics.

Table 2. Growth of the U.S. Food Service, 1967 - 1977.^{1/}

| | Year | | Change |
|---|-----------|-----------|--------|
| | 1967 | 1977 | % |
| Food and Beverage Sales (million) | \$23,843 | \$63,276 | +165 |
| All Retail Sales (millions) | \$310,200 | \$723,100 | +133 |
| Food and Beverage Employment (thousands) ^{2/} | 2,379 | 4,059 | +71 |
| Employed Civilian Work Force (thousands) | 74,400 | 90,500 | +22 |
| Places of Refreshment | | | |
| Sales (million) | \$3,418 | \$19,527 | +472 |
| Employment (thousands) ^{2/} | 296 | 1,157 | +219 |

^{1/} Source: U.S. Census of Business.

^{2/} Employment derived from paid employees in census week plus proprietors of unincorporated establishments.

take a simultaneous look at several "drivers of demand" for food service in the 1980's. One of these is the general economy. Most economists predict that the nagging problems of the 1970's will have lessened by the latter half of the 1980's. They are optimistic for this period. A healthy growing economy in the 1980's is not certain but it is a good bet. National demographics greatly improve its likelihood. Between 1977 and 1987 the number of Americans in their most productive years, the 35 to 49 age range, will have increased by almost one third, 31 percent, Table 3. Couple this with the fact that numbers of teenagers will be down in absolute terms by 17 percent, and the prediction that nearly 60 percent of married women will be in the work place, Table 4.

What do we have? A population with a high proportion in their most productive years, an increasing proportion of families with two wage earners, and smaller families, hence relatively low numbers of younger dependents (which also means less street crime, and relatively less spent for schooling). Such a population will be productive, they will have a high per capita disposable income - these factors will almost certainly have a salutary effect on the economy. They will also cause a high propensity to eat out - especially when we again note that there will be no-one at home with inclination to prepare food.

This does not guarantee that every food service will grow. But it does say that the market opportunity will be there in abundance!

A COMMUNITY-FOOD SERVICE INDUSTRY MODEL

Interrelationships with the local community show specifics of the way in which food services deliver their output to the society and in so doing also contribute local employment, profits and tax base.

Table 3. U.S. Population Age Group Projections, 1977-1987. ^{1/}

| | Numbers | | Change % |
|-----------------------------|------------------------|------------------------|-------------|
| | <u>1977</u> million | <u>1987</u> million | |
| Age Group (years) | | | |
| Under 13 (children) | 44 | 49 | up 11 |
| 13-19 (teens) | 29 | 24 | down 17 |
| 20-34 (young adults) | 53 | 60 | up 13 |
| 35-49 (middle age, younger) | 35 | 46 | up 31 |
| 50-64 (middle age, older) | 32 | 32 | down 1 |
| 65 & over (aged) | 23 | 28 | up 19 |

^{1/} Source: U.S. Bureau of Census.

Table 4

Married Women in the Labor Force
With Husband Present

| <u>Year</u> | <u>Percent of All Married Women</u> |
|-------------|---|
| 1950 | 23.8 |
| 1960 | 30.5 |
| 1970 | 40.8 |
| 1978 | 47.6 |

Source: Statistical Abstract of the United States

A special Minnesota survey is used here to show the food service impact since Census of Business data have been found subject to substantial underestimation.^{1/} Our survey found sales to be 30 percent larger than those reported by the Census of Business. Minnesota is a good state to use for illustration since its industry is approximately that of an average state; one-fiftieth the scale of the U.S.A.

The \$1.5 billion of 1976 commercial restaurant sales estimated for Minnesota was 11.6% of the state's retail sales (estimated from Sales and Use taxes). These operations are a factor in employment for 276,000 full-time and part-time workers. This amounts to about one-sixth of the Minnesota labor force.

A model of the full dimensions of food service-community interrelationships is shown in Figure 1. The industry's product is sold through "forward linkages" to consuming units. In order to produce its output it must have "backward linkages" to the community through which it purchases the varied inputs needed for it to function.

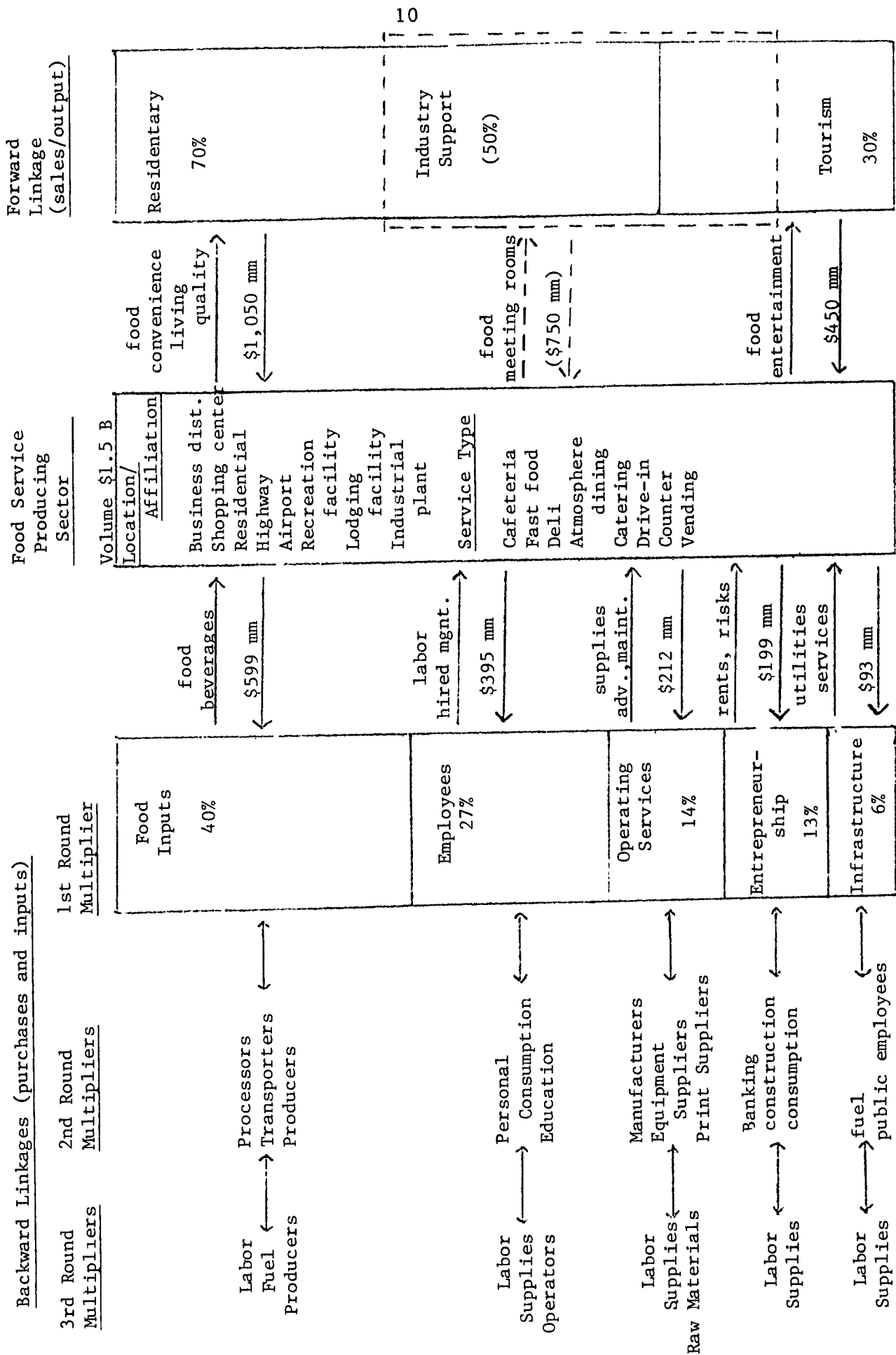
Forward linkages

Forward linkages are the specialized outputs of food services. These are sales of food and beverage products, services and ambience or, more broadly, life experiences. They are the reason for existence of the industry. Clientele are of many different types. Most sales are made directly to final consumers but it will be especially noted that an important function of the industry's output is in support of other industry.

In order to fully understand the function of these sales in the community they are noted as having several components:

Tourism -- consists of sales to tourists -- defined here as all non-residents who do not regularly commute to the given community to work. When making sales to tourists the food service industry operates like an exporting in-

Figure 1. THE COMMERCIAL RESTAURANT INDUSTRY OF MINNESOTA



dustry; that is it generates new dollars that help to expand the local economy. Studies in the Minneapolis-St. Paul Metropolitan Area ^{2/} estimate tourists spend \$225 million there for food services. This is estimated at almost exactly 50 percent of total Minnesota food services sales to tourists. Thus tourism accounts for 30 percent of the food service industry sales. Tourism sales vary from community to community. In communities with relatively small numbers of out-of-the-area travelers it will be low. In northern Minnesota communities, attracting a large number of recreators because of its high quality natural waters and woodlands, food service sales to tourists may run over half the total. A 1970 study in the area near and including International Falls, found 54 percent of food service industry sales to tourists.^{3/} These travelers may have come into the community for a variety of reasons or combinations of reasons. Note some special inter-relationships between tourists' travel purposes and the community's food service industry:

- Those in the community for purposes of recreation/entertainment, conventions/conferences and as a stopover on the way to another destination may have been influenced in their travel decisions by the character of the community's food service industry. The food-away-from-home experience may be a significant part of the amenity package sought. The food service offering may expand their expenditures in the given community by a factor of several times, e.g., will those driving in to a major sports event eat a meal in the community before and after the event or will they do it on the road or at home?
- Those in the community to visit friends and relatives have been found to be a factor in food service sales. Their image of the food service amenities and that of the local residents whom they visit will affect their expenditures while in the community. Most tourism bureaus and

food services ignore this component of travel; they do so to their own disadvantage since it is the largest single reason for travel away from home, accounting for 32 percent of all person-trips over 100 miles from home in 1977.^{4/} A 1970 study found that 10 percent of restaurant meals in an area receiving a substantial volume of outdoor recreation tourists involved "visits with friends and relatives".^{3/} In Minneapolis-St. Paul it was estimated that tourists who were visiting friends bought seven percent of the total sales of food services^{2/}; note that this ignores purchases by their hosts in restaurants because they had guests in town.

--- Those traveling for gainful employment and for personal business might, at first glance, appear "stuck" with whatever food service is locally available. But many of these travelers have a high degree of control over their itinerary - how long they will be in one locality, where they stay overnight and where they are at mealtime. Hence food and beverage sales to this group of travelers may also be highly flexible depending upon the appeal of the community's hospitality service offering.

Residentary - consists of sales to local residents. For all Minnesota food services this accounts for 70 percent of sales. These residents are of four different types that are usually complexly interrelated in reality; eating away from home: a) for purposes of convenience; b) under conditions of necessity; c) for business or institutional purposes; and d) to improve living quality by extending the range of life experiences, social contacts and entertainment.

Industry Support - is a special role performed by food and other hospitality services since, in order to function, nearly all modern economic activity requires travel by some of its participants. Hospitality services provide

the means for sustenance while these individuals are away from home.

This function overlaps both the residuary and tourism segments of the forward linkage. In Minneapolis-St. Paul it was estimated that 67 percent of tourists' food purchases were also "industry support"; in outstate Minnesota this proportion was only one half this high. Thus in the entire state the tourism forward linkage consists one-half of industry support. A conservative estimate of the residuary forward linkage is that it also is approximately one-half industry support.^{1/} In summary, industry support makes up at least 50 percent of all sales or \$750 million in Minnesota annually.

Interrelated subparts include:

- Business Travelers - modern business, social and governmental institutions require travel for management, sales, and technical consultation purposes. These people must have the means for living away from home. This aspect of industry support is also a part of community tourism.
- Meeting/Conferencing - the functioning of nearly all aspects of private and public and of profit and non-profit systems in our society require face-to-face group communication. Food services frequently provide the physical setting. Note that this may be either a "residuary" or a "tourism" forward linkage or some of both depending upon whether or not the conference participants are community residents or have traveled a distance and are therefore tourists.
- Worker convenience - going home for meals during work hours is impractical for most employed persons. Food services provide convenience, and save time and travel.

The Food Service Producing Sector

In Minnesota the commercial food producing sector is estimated at \$1.5 billion sales in 1976. This is over 11 percent of all retail sales in the

state. It offers a widely varied range of food service, operating throughout Minnesota in metropolitan, rural and other types of settings and serving an equally varied clientele. Figure 2 illustrates some of this variety. It is not discussed further since the purpose here is to describe inter-relationships rather than details of the food sector itself.

Backward Linkages

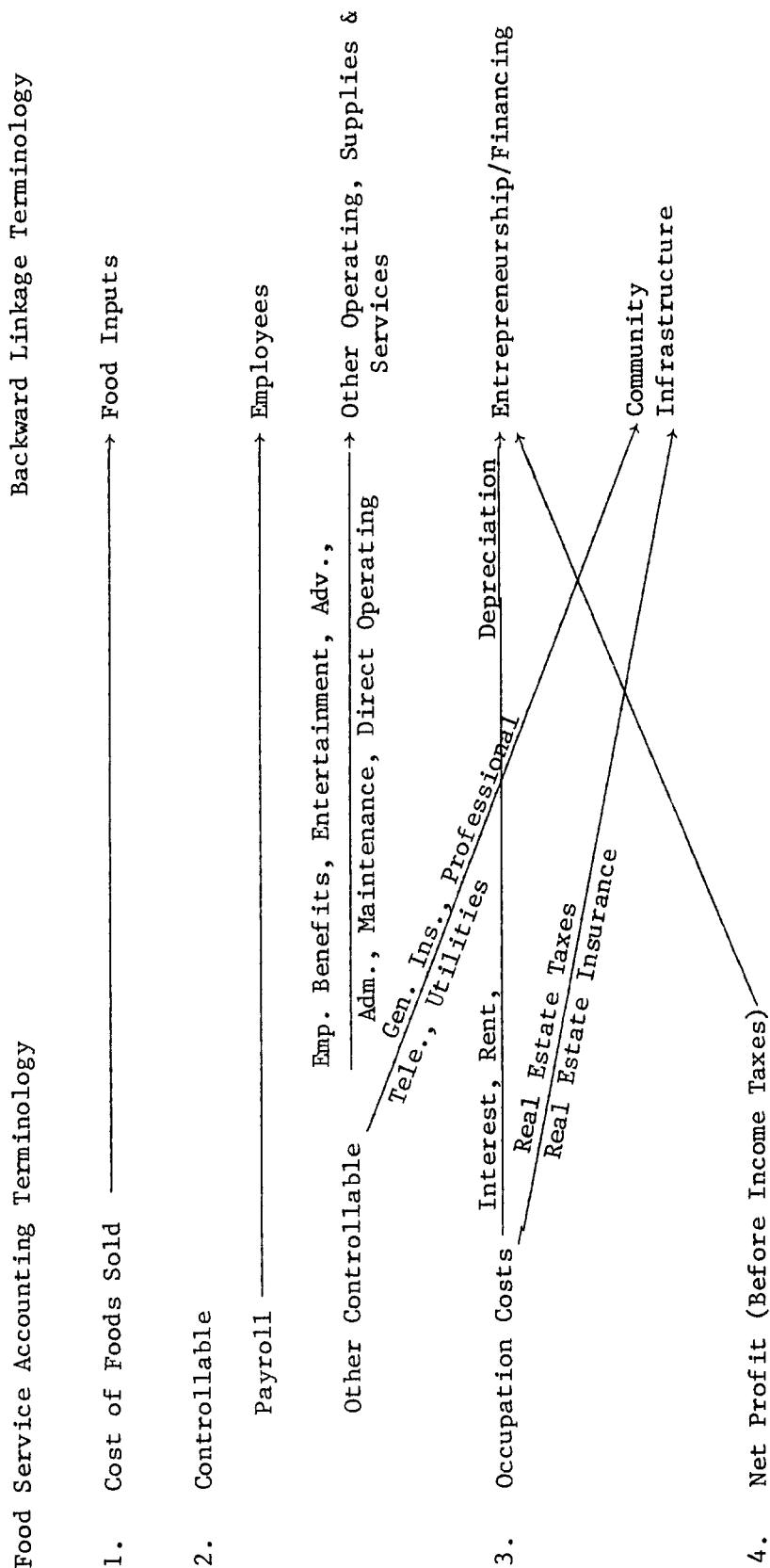
Backward linkages are all the things the food industry buys. They are the inputs provided by the community that make possible the industry's output to society. Significantly, it is through these purchases that the food service industry makes its economic contribution of jobs, profits, rents and tax base to the community.

Depending upon the size and complexity of the community in which a given firm operates, it may be necessary for parts of these purchases to be imported into the community. But the industry's nature is such that a high proportion of inputs are usually of local origin even in small communities. It is estimated that, in Minnesota, 60 to 75 percent of the first round of production inputs (backward linkages) are supplied from within the local county. For most retailing and processing firms the proportion of locally-produced inputs is much lower. It is important to note that the higher the proportion of locally supplied inputs, the greater the economic benefit to the local economy.

Terminology that has relevance to the community has been substituted for traditional food service accounting terminology in describing the backward linkages. Inputs have been renamed in Figure 1, and regroupings have been made, for example "Cost of Goods Sold" has been renamed "food inputs". Figure 2 shows the composition of the regroupings. Percentages for each new group have been determined using findings from the 1976 Minnesota Food Service Industry Survey and data of the National Restaurant Association.^{5/}

Figure 2

Terminology Translation: Food Service Accounting - Community Backward Linkage



The groups of backward linkages include:

Food Inputs - these are foods and beverage items that are processed and re-sold to customers. In Minnesota their 1976 value was \$566 million or 40 percent of all inputs (31 percent food and non-alcoholic beverages; 9 percent alcoholic beverages). These items could be nearly all of local origin. Actually most, if not all, are often purchases outside the community. This results from the great complexity of modern food producing, processing and supplying systems. Note that there is an interrelationship between labor skills, processing/transportation technology and the type and origin of food purchased. Meat provides the most convenient example: some restaurants purchase meat in bulk (halves, quarters, etc.) and break it down themselves. It is in contrast to the purchase of portioned cuts. It transfers part of the processing and storage operation into the restaurant itself, but it requires skilled labor. Other staple foods, such as potatoes, could also be used as an example of processing in-house versus elsewhere.

They came from a complex supply system including wholesalers, brokers, processors, and ultimately the raw food producers. The direct suppliers may include a combination of the following types plus others:

- Wholesale grocers
- Fruit and vegetable venders
- Meat suppliers
- Poultry products handlers
- Fish and shellfish handlers
- Frozen food and specialty foods
- Dairy products
- Bakery products
- Alcoholic beverages
- Other beverages - non-alcoholic, non-dairy

Employees - include hired labor only and compare directly with "payroll" as a part of controllable expenses. The 1976 Minnesota food service industry payroll was \$395 million or 27 percent of all inputs. In terms of full-time job equivalents employment is estimated at 90,000. In terms of individual people a total of 276,000 Minnesotans work full or part-time in the industry. This is 16 percent of the total work force.

The pattern of labor inputs vary greatly. On the one hand the purchaser of a small restaurant in effect "buys a job" for himself and his family plus a place for investing savings. Owners manage 70.5 percent of Minnesota food services, and unpaid family labor is included in the above figure of 276,000. On the other hand, capital, management and labor may be sharply differentiated in the case of a restaurant chain. All labor, including management may be hired. In any event, most labor is supplied by the local community.

Other Operating Supplies and Services - include a wide range of items needed to operate including advertising, maintenance, entertainment, administration, operating supplies and employee benefits. The group compares to "Other Controllable Costs" with the exception that utilities, etc. have been transferred to the Community Infrastructure Group. These items amounted to \$211 million or 14 percent in 1976 in Minnesota. Their sources include local lumberyards, equipment services, and newspapers/printing as well as many suppliers at a distance.

Entrepreneurship/Financing - this group includes the investment, ownership, risk and financing function. It totaled \$199 million or 13 percent of all 1976 Minnesota inputs. It includes profits, return to owner-managers, return to unpaid family labor, and all interest and rents whether actually paid or imputed. In the case of a resident owned and managed operation this input may be fully supplied by the local community.

Community Infrastructure - these are facilities and services that are necessary for the community to operate, and that are available to serve all citizens and businesses. In 1976, \$93 million was paid for infrastructure services in Minnesota or 6 percent of all inputs. They include utilities, telephone, insurance (usually created by a grouping of firms to spread risk) and general community services. Some, such as utilities, gas, electricity, insurance and telephone may be private and paid for in proportion to use. Others such as roads, streets, street lighting, parks, police protection and fire protection may be supported through public taxation. Note that these may not all be locally supplied -- examples are electricity and telephone in smaller communities. Note also that in some cases tax moneys are used to upgrade community aesthetics and living quality - through park development beautification programs, and may also contribute to programs of tourism promotion.

Not shown here is the Minnesota sales tax which was \$60 million and would have increased the infrastructure component to \$153 million.

An extensive set of additional considerations further define the food service industry-community relationship. Most elaborate the linkages discussed above. Among the more important are the following.

Multipliers

When money is spent for food service it has a greater economic impact than simply one dollar for each dollar spent. Twenty-seven cents of each sales dollar goes into payroll. The employees respond their income using it for all the things needed to live, such as groceries and rent. The grocer in turn must pay his own employees as well as his own rent and buy his supply of groceries at wholesale. This chain continues at great length. One part of the employee multiplier chain is the educational system. In Minnesota 52

percent of food service managers reported having either a college degree or special training in the food service.

All other parts of the backward linkage, in turn, have their own backward linkages. "Food Inputs" was noted as the major input. Its supply extends backward through wholesalers, processors, transporters to the ultimate farm producers and further backward to the implement, fertilizer, etc. suppliers of those producers. United States restaurants require the output from one-fourth to one-third of U.S. agriculture.

The immediate supplier of the food service firm is called the "first round multiplier". Purchases from the supplier's supplier make up the "second round multipliers" and so on through third and subsequent "rounds". This multiplier commonly falls in the range of 2 to 3. It has been calculated for the U.S. food service at 2.3.^{6/} This means that for each dollar spent by consumers for food away from home another \$1.30 of added economic activity is generated. This figure of 2.3 compares with a multiplier of 1.4 for all the "retail sector, except food services." In other words a restaurant purchase means much more in economic terms to the community than a department store purchase.

Where Do Diners Come From?

Food service customers are available from two primary sources:

- The community must function sufficiently well as a place to live and/or supplier of income that it sustains a resident population having demand for food away from home. The better the local community functions, the greater the demand in numbers and types of meals away from home, hence the greater the opportunities for food service firms.

--- Travelers who are attracted to the community and need food services.

Figure 3 illustrates the great multiplicity of factors that may operate in a complex community to generate tourists. While most food services depend upon the community to attract travelers, a synergistic effect may sometimes be operating where food services become a major part of the attraction influence in their own right.

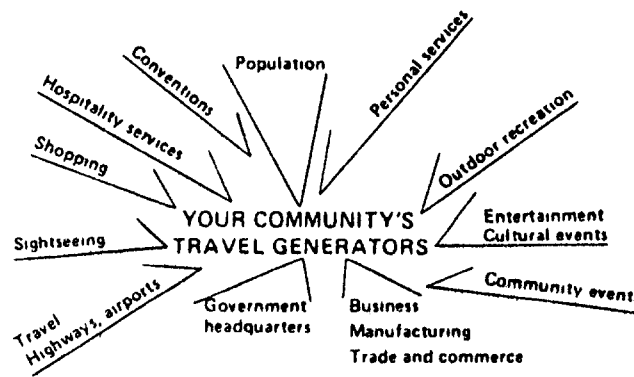


Figure 3. Community Travel Attractors

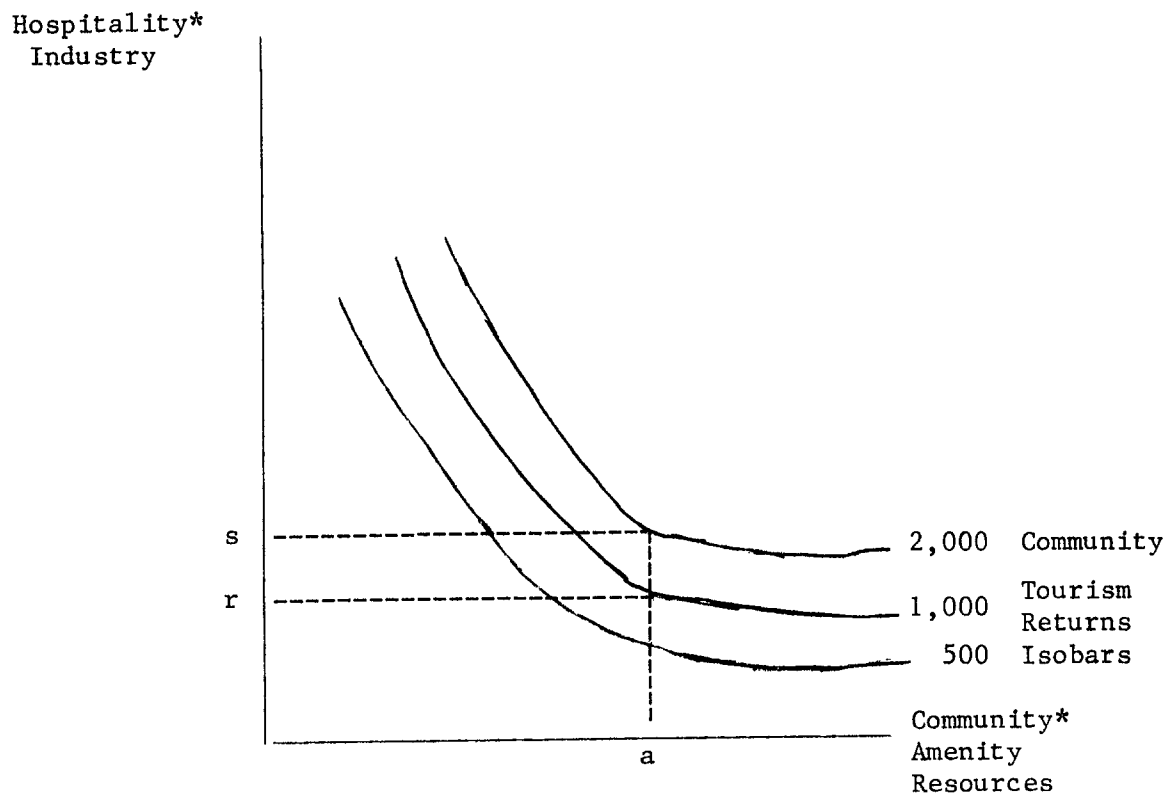
Resources and the Food Service Industry

It appears easy for most people to understand the relationship between local resources and many economic activities. Examples: good soil and agriculture; power generation and aluminum production; high technology and computers. It appears difficult, however, for many people to connect community resources and economic activity generated through tourism, with the hospitality industry of which food services are a significant part. Most tourist sales are made through hospitality services.

Figure 4 illustrates the relationship between a community's hospitality industry, its potential tourist attracting resources and its tourism income. The curved lines in the diagram represent return to the community in tourist income each having the value as labeled. They may be thought of as lines on

Figure 4

The Hospitality Industry - Resource - Community
Income Relationship Pattern



* Scales are a combined quantity and quality measure of industry services and resources.

a contour map with income levels rising above the plane of the paper. Note that with a level of attractions resources "a" only 1,000 in community tourism income is attained with a hospitality industry development at the level of "r". But with the same level of resources, 2,000 in income can be generated for the community with a level of "s" in hospitality services. As indicated in the diagram, community tourism can expand by either expansion in numbers or quality of hospitality services or by additions to the attractions resource.

A brief explanation of how the system works may be in order. Consider the case of a community with a major sports event or art gallery. Visitors may come because of either attraction. How much money they spend may depend upon food, and other hospitality, services available in the community. Will they eat at home, at some stopover on the way, or in the target community? In the same manner, a community with an excellent lake will realize little economic return from it unless it has rooms, meals and related hospitality-recreational services to sell.

Direct spatial resource requirements provide another and different types of insight. The building space in all Minnesota food services totals only 570 acres. Even with parking lots not over 10,000 acres of space would be directly required. This intensive use of land to produce \$686 million in value added from the \$1,500 million of food service sales compares with the extensive land use of Minnesota farm production. There 1,800 times as much space, 18 million acres of harvested land, is required to produce only a little over 4 times the value added: \$2.9 billion of value added on \$5.5 billion total sales.^{6/}

The Food Service Industry -- Nursemaid to the Labor Force

At any given time an estimated 11 percent of the teenage Minnesota population is employed in the food service industry. The industry plays a role

in the early work experience of at least 25 to 30 percent of all teenagers. This proportion may even increase in the years ahead as relative numbers of teenagers become less (absolute numbers of teenagers in the U.S. population is estimated to fall by 17 percent between 1977 and 1987).

The food service industry is thus a major factor in youth employment. It is also a major factor in helping to shape job attitudes on the part of the labor force. This is an important qualitative addition to the role of the food service industry as an overall contributor to jobs.

THE CHALLENGES POSED

This look at interrelationships of food services with the macro community at the national level and with the local community leaves challenges. These will be simply stated.

- There appears to be potential for real growth in food service sales; what strategy is needed for each firm to realize its share of this potential?
- Numbers of teenagers in our society will actually decrease in the decade of the 1980's. This has implications for markets; it probably will mandate even greater adjustments in labor management since teenagers have been an important pool of food service manpower.
- What is the best strategy for an intensified public relations/educational campaign so that investors and other public leaders fully understand the potential contribution of food services to the modern community: 1) to community industry and living quality; and 2) in the production of local jobs, profits, rents and tax base?
- Can the entrepreneurship/financing input be upgraded? Much has already been said about management training. What about financing? Can creative means for food service financing such as through industrial revenue bonds be developed and used?

Literature Cited

1. Blank, Uel and Robert Olson. Minnesota's Food Service Industry, University of Minnesota (in process).
2. Blank, Uel and Mike Petkovich. Minneapolis-St. Paul's Travel Tourism, University of Minnesota, 1979.
3. Blank, Uel. "Tourism in the Lake of the Woods-Rainy Lake Area", Minnesota Agricultural Economist, No. 543, November 1, 1971, University of Minnesota.
4. Travel During 1977, Census of Transportation, U.S. Department of Commerce.
5. Restaurant Industry Operations Report '79, for the United States, National Restaurant Association, prepared in cooperation with Laventhol and Horwath.
6. Maki, Wilbur. Minnesota Regional Economic Impact Forecasting and Simulation, forthcoming report series, Department of Agricultural and Applied Economics, University of Minnesota.