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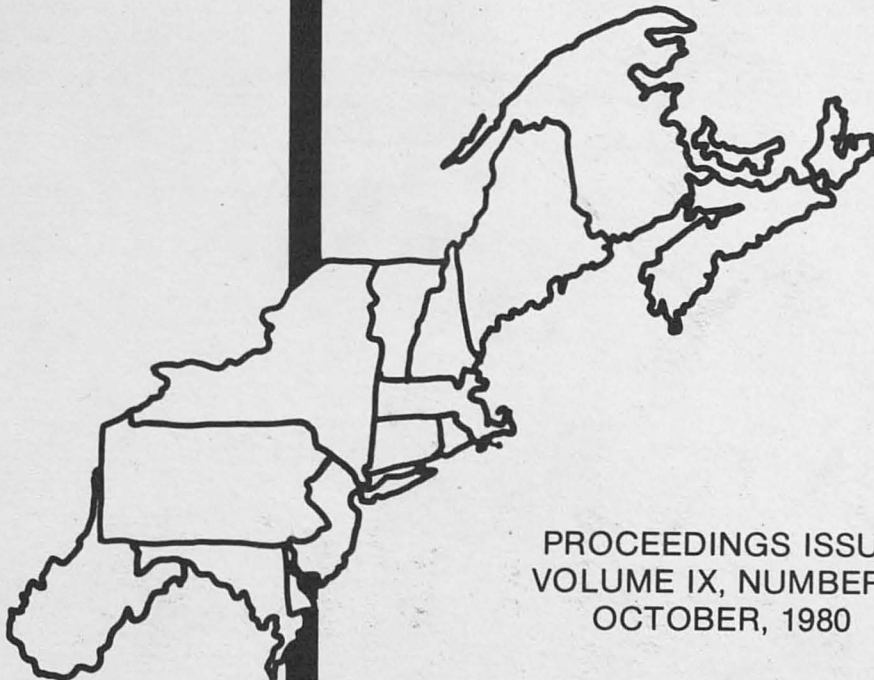
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POVERTY, THE CITIES, AND THE FOOD DELIVERY SYSTEM

Donald R. Marion

INTRODUCTION

Entering the decade of the 80's, the U.S. faces a number of difficult challenges carried over from the decade just ended. A pressing domestic problem is that of poverty, and its many manifestations. Major cities are confronted with a particularly difficult problem. Concentrations of low-income persons, unemployment, congestion, dilapidated structures, high crime rates, struggling education systems, and deteriorated business and economic conditions, create a seemingly impossible morass of redevelopment problems. One aspect of the decline of the cities that has had particularly serious consequences, is the gradual deterioration of the food delivery system there. It is especially critical because of its implications for the diets and budgets of low-income families.

This paper begins by reviewing the poverty situation in the U.S. with particular attention to urban areas, as a backdrop to the subsequent discussion. Next, the question of the adequacy of the food delivery system serving low-income, urban areas is addressed, followed by a discussion of some alternative measures for dealing with apparent deficiencies.

THE U.S. POVERTY SITUATION

The 1960's and 70's witnessed numerous "war on poverty" programs offered through the Office of Economic Opportunity, the Office of Minority Business Enterprise, the Small Business Administration, and other government agencies. Poverty is still a major problem in the U.S., however. Data for 1976, the most recent available, reveal that there were still 25 million persons—12 percent of the population—living in poverty¹ in the U.S. at that time (Table 1). Over 60 percent of this total lived in metropolitan areas—38 percent within the central city areas. In metropolitan poverty areas (largely within the central cities), nearly one-third of the population falls within the poverty category.² Though accounting for only 7.6 percent of the total U.S. population they (metro poverty areas) include slightly over one-fifth (21.2%) of total U.S. poverty.

It is also worth noting that poverty has become more stubborn in recent years, especially in urban areas. While the incidence of poverty in the U.S. declined 36 percent from the 1959-76 total, there was actually a slight increase (over three-quarters of a million persons) during the recent period 1969-76 (Table 2). Examining the reductions in poverty by area of residence, it is evident that the greatest progress has been made in non-metro areas where, in 1976, the poverty population was less than half the 1959 level. Over the

same period there was only an 11 percent reduction in metro poverty, and nine percent in the central cities. As a result, in 1976, 61 percent of the poor were in urban areas, in contrast to the 44 percent of 1959.

The extent of the economic disadvantage of the poor is reflected by the per capita income data of Table 3. For all persons below poverty, the 1976 U.S. average income was slightly over \$1,000 per capita, compared with an average of \$5,200 for the total population. For the U.S. as a whole, only 10 percent of all families are shown to have had 1976 incomes of \$5,000 or less. Eighty percent of all poverty families were within that income group (Appendix Table 1). The data also reflect the contrasting income character of the central city. Incomes averaged \$5,230 per capita in the central city, but were only \$3,364 in central city poverty areas. By deduction, it is evident that per capita incomes in the non-poverty sections of the central cities averaged \$5,924, nearly identical to the urban fringe (non-central city) areas, and more than a 75 percent difference.

Non-whites represented a disproportionately large share of the poverty, constituting one-third of the population below poverty, but only 13 percent of the total. In urban poverty areas, over 50 percent of the population was non-white and for the below-poverty portion alone, over 60 percent was non-white. Similarly, female heads-of-households were more prevalent in poverty areas than elsewhere. For the U.S. as a whole, males were head-of-household in 86 percent of all cases. In urban poverty areas, only 38 percent of the below-poverty households were headed by males (census).

Number of owned vehicles per family, and home ownership (rather than tenancy), were found to be positively related to income (Appendix Table 1). Families in the upper income classes owned 4-5 times as many automobiles as in the lowest income classes, and owned their own homes more than twice as frequently. In the lower income classes, one-fifth of the family income was derived from public welfare, declining to less than one half of one percent for families with incomes over \$8,000. Family expenditures for food were also positively related to income. Adjusting for differences in family size, however, it is apparent that most of the differences among income classes are really a reflection of family size rather than an income effect. As would be expected, the proportion of income spent for food decreased sharply from the lowest to the highest income groups, declining from 50 percent for families with less than \$3,000 annual income to six percent for those with incomes over \$25,000.

The foregoing material depicts a large and persistent inner-city poverty problem. The poor are less mobile in terms of day-to-day transportation, but more flexible with respect to residential patterns. Because they are less frequently homeowners, their neighborhoods may be less stable. The neighborhood food delivery system is likely to be of particular importance, both because of the large proportion of their incomes consumed by food expenditures, and the limited ability they have to travel outside their neighborhoods to shop for food.

THE FOOD DELIVERY SYSTEM

It is evident that, in low-income neighborhoods, the level of food prices and the accessibility of food stores providing "adequate"

Donald R. Marion is an associate professor in the Department of Food and Resource Economics, University of Massachusetts. This paper was developed from the beginnings of a study supported by USDA/ESCS, and earlier work at the University of Massachusetts. The author wishes to acknowledge the support of ESCS/NED during the year 1979-80 (J. E. Lee, R. E. Frye, C. R. Handy, *et al.* and the continuing interest.

¹The definition of poverty is adjusted year-to-year, for changes in the cost-of-living. For 1976, the poverty threshold stood at \$5,815 for a non-farm family of four, about six percent higher than the \$5,500 standard of 1975.

²Metropolitan poverty areas are defined by the Census Bureau as contiguous census tracts with 20 percent or more of the population below the poverty threshold.

Table 1.
Distribution of Total Population and Poverty by Area of Residence, 1976

Area of Residence	Total Population		Population Below Poverty			Poverty Index Poverty/Population/ Total Population
	Number Persons	Percent of Total	Number Persons	Percent Total Population	Percent Poverty Population	
	1,000's	Percent	1,000's	Percent	Percent	
Total U.S.	212,303	100.0	24,975	11.8	100.0	1.00
Metropolitan Areas	142,931	67.3	15,229	10.7	61.0	0.91
Central City	59,922	28.2	9,482	15.8	38.0	1.35
Poverty Areas	16,221	7.6	5,302	32.7	21.2	2.79
Non-Central City	83,008	39.1	5,747	6.9	23.0	0.59
Non-Metro Areas	69,372	32.7	9,746	14.0	39.0	1.19

Source: Current population reports, *Consumer Income, Characteristics of the Population Below the Poverty Level*, 1976, Series P-60, No. 115, Table D.

Table 2.
Changes in Number of Persons in Poverty, by Urbanization, 1959-76, U.S.

Area of Residence	1959		Persons Below Poverty 1969		1976	
	1,000's	Percent	1,000's	Percent	1,000's	Percent
U.S. Total	38,766	100.0	24,147	100.0	24,975	100.0
Metropolitan Areas	17,019	43.9	13,084	54.2	15,229	61.0
Inside Central Cities	10,437	26.9	7,993	33.1	9,482	38.0
Non-Metro Areas	21,747	56.1	11,063	45.8	9,746	39.0

Source: Ibid, Table 4.

Table 3.
Per Capita Income by Area of Residence, 1976

Area of Residence	Average income per capita	
	Total population	Below poverty
—Dollars—		
Total U.S.	5,231	1,054
Metropolitan Areas	5,623	1,105
Poverty Area	3,364	1,087
Central City	5,230	1,129
Non-Central City	5,921	1,069
Non-Metro Areas	4,435	976

Source: Current population reports, *Consumer Income, Characteristics of the Population Below the Poverty Level*, 1976, Series p. 60, No. 115, Table 9.

service are matters of considerable importance.³ Data from an earlier study raises serious question about the adequacy of the food retailing system serving the inner city (Table 4). Without exception, in the eight cities considered in that study, poverty areas had fewer supermarkets and less square footage of facilities, relative to population, than did non-poverty areas. Only in Birmingham was

³Adequacy of service as used here refers only to the numbers of stores and amount of sales space available, even though factors such as product quality, relative prices, store condition, and store location, among others, all contribute to a complete measure. Nonetheless, number and size of stores are perhaps the most important determinants of "adequacy," and objective data for the other factors were not readily available.

supermarket availability close to comparable in the two areas. There, in 1975, were just over two supermarkets per 10,000 persons, both in the inner-city (poverty area) and in the remainder of the SMSA. Supermarket selling space per capita was 2.46 square feet in poverty areas, and 2.89 elsewhere. In Newark (New Jersey), and San Antonio, the differences were marked, with 40 and 60 percent fewer poverty area supermarkets per 10,000 persons, respectively, than in the non-poverty areas. The supermarkets in poverty areas were not only fewer in number, but smaller, compared with those in other areas. On the basis of square footage of selling space available, the low-income areas had 57 and 65 percent less supermarket space available, respectively, compared with other parts of those SMSA's.

Of the supermarkets located in poverty areas, a smaller percentage were chain operated than was the case in non-poverty areas. Likewise, chain operations accounted for a greater proportion of total supermarket capacity (square feet of selling area) in non-poverty areas than in poor neighborhoods. Once again, San Antonio was an extreme case.

These data are consistent with reports of the movement of supermarkets, especially chains, out of the inner-city. Some explanation for such shifts may be found in Table 5. A comparison of operating margins, expenses, and net profits for poverty area and non-poverty area supermarkets shows markets in poverty areas to be substantially less profitable. Major contributing factors to these differences were, lower average annual sales volume per store, higher inventory shrinkage, and higher labor and security, repair and maintenance expense for poverty area supermarkets, than for those in other areas. As a result, the net profit of supermarkets in poverty areas is shown to be only about 40 percent

of that of supermarkets in other areas. Furthermore, the poverty area crime problem reflected by the data (inventory shrinkage and security expense) suggests a difficult, possibly oppressive, environment in which to conduct business.

An additional problem for inner-city areas may be found in considering the information of Tables 4 and 5 together. If poverty areas include proportionately more *independent* supermarkets (fewer chain operated), and supermarket operating expenses are generally higher in those areas, then it probably follows that the prevailing price structure for food is higher in poverty areas than non-poverty areas.⁴ Independent operators necessarily must set prices high enough to cover their cost of doing business, regardless of where the store is located. Chains, on the other hand, if they choose to do so, can charge the same prices in all stores, allowing a cross-subsidization of high-cost stores by lower-cost, more profitable stores.

POSSIBLE SOLUTIONS

It appears that there are some serious deficiencies in the distribution system for food in the inner-city, even though the information necessary to such a judgment is less than complete. Furthermore, the problems that seem to have led to the existing situation—poverty, crime, etc.—probably represent substantial constraints to improving the situation. As a result, the natural functioning of the competitive process will probably require some adjustment to produce a solution, if in fact a solution can be found in the traditional competitive system.

The task of restoring a higher level of retailing service to the inner-city might be approached either by experimentation, or through the inductive process, building a solution upon research results, or by some combination of the two.

Many possible alternatives could be tested and/or studied, including a number that are only slight variants of the traditional supermarket. Because of the risks involved in operating businesses in the inner-city, one might first consider alternatives that would allow a conventional retailer to operate a supermarket in the inner-city, without assuming ownership of the property. Doing so would eliminate a part of the risk to the retailer, and possibly at the same time, give the store a stronger neighborhood image. Figure 1. shows some of the possible arrangements of this nature, as well as some additional alternatives involving different parties in the operation of the store.

"Joint ventures" are an innovation in which the neighborhood or community group provides the investment capital, with the business operated under a management contract with an established retailer, who also serves as the major supplier. In most cases, the names of both the neighborhood group and the retailer involved would be included in the name of the store. Arrangements of this type exist in at least three major cities. Two have been operated for too short a time to permit a meaningful assessment. The third has had mixed results, operating successfully for several years before encountering difficulty. One other "joint venture" supermarket known to have existed, failed after a brief period of operation.

Under this arrangement the retailer can avoid much of the risk, although they are difficult to organize. An identifiable and stable

neighborhood group is a prerequisite, and reaching a mutually acceptable working agreement may be a problem. They represent an interesting possibility but have yet to be proven.

The term "state store" usually refers to a store owned and operated by the state. Here it is used to describe a supermarket owned by the government (state or federal) and leased to an established retailer to operate. No stores of this type are known to exist. They would have an advantage, however, of pricing-out the disadvantage of operating a supermarket in the inner-city, through a competitive bid process.

Following the pattern of more or less conventional entrepreneurship, there are several other possibilities, even though they do entail private ownership of the property. It is possible that independent and/or chain store retailers, with some modification of their usual methods of operating, can eventually learn to operate successfully in these difficult areas. In scattered locations around the country, though few in number, there are a number of cases where established retailers have developed new supermarkets, or substantially remodeled existing ones, in inner-city poverty areas. Little is known about the retailers' experiences in these cases, partly because they are mostly quite recent developments. Thus far, none of the new or remodeled inner-city stores have been "box stores,"⁵ but that would be another "model" with interesting possibilities.

Another conventional entrepreneurship alternative is that represented by minority business. Operated in neighborhoods predominated by persons of the same ethnic origin, they might encounter less friction or hostility than other retailers. Alternatively, members of some minority groups may inject enough entrepreneurial vigor into the business to survive in spite of the hostile environment of the city. Presently, in at least one major city, the inner-city food business is dominated by a minority group. In several others, the number of minority operated food businesses is growing quite rapidly. Vietnamese and Koreans, in particular, have greatly expanded their involvement in the food business.

Consumer cooperatives too should be considered as possible models for application in the inner-city. Historically, one of the principal roles of the cooperative has been to provide members with a service that the market did not provide, or did not provide satisfactorily. The inner city food delivery system represents such a case. Although many of the older, established cooperatives have experienced financial difficulty in recent years, there are several examples of newly established and developing co-ops in inner-city settings that may represent more relevant tests. In addition, the new Consumer Co-op Bank seems certain to propagate a number of additional new "models" in the near future. In Los Angeles, Oakland, and San Francisco, for example, earnest efforts are under way to develop consumer food co-ops in certain inner-city neighborhoods where retailing service is most deficient.

Neighborhood markets are very similar to consumer co-ops except that they are not organized as cooperatives. They may or may not operate on a non-profit basis.

Two additional possibilities for enhancing the food system of the cities are the government commissary and public utility supermarkets. They will not be discussed here, and both are so extreme as to be remote possibilities for adoption. Either might be employed in an "all else fails" situation.

There are other establishment alternatives, too numerous to discuss in any detail. Busing shoppers to supermarkets, mobile

⁴The question of independent vs. chain store prices in the inner-city has not been addressed recently. It was examined by several studies in the early 70's, however. See Dixon and McLaughlin and National Commission on Food Marketing, or Marion 1974 for a review of several studies.

⁵"Box Stores" are one of the recent appearing variants of a supermarket, offering a sharply reduced selection of items (4-600, compared with 8-12,000 in conventional "Supers") in a no-frills, economy setting.

Table 4.
Square Feet of Selling Area Per Person, Proportion of Supermarkets Operated by
Chains, and Number of Supermarkets Per 10,000 Persons, Poverty and Non-Poverty
Areas, Eight U.S. Cities, 1975

City Type of Area	Sq. Ft. Selling Area per Capita	Number of Supermarkets per 10,000 Persons	Chain Stores, Proportion of Total Supermarkets	
			Sq. Ft. Sales Area	No. of Stores
Birmingham				
Pov. Area	2.46	2.07	34%	40%
Non-Pov. Area	2.89	2.08	54	45
Boston				
Pov. Area	.88	.89	60	51
Non-Pov. Area	1.74	1.41	67	58
Chicago				
Pov. Area	.95	.92	62	51
Non-Pov. Area	1.88	1.56	64	53
Detroit				
Pov. Area	1.01	.85	66	59
Non-Pov. Area	1.80	1.23	84	74
Los Angeles				
Pov. Area	1.42	1.15	35	28
Non-Pov. Area	2.15	1.56	49	42
Newark				
Pov. Area	.44	.52	35	27
Non-Pov. Area	2.11	1.24	55	56
St. Louis				
Pov. Area	.89	1.25	54	37
Non-Pov. Area	2.55	1.70	56	42
San Antonio				
Pov. Area	1.51	.98	55	49
Non-Pov. Area	3.52	1.68	76	77

Source: Marion, Donald R., *Supermarkets in the City*, University of Massachusetts,
Publication No. SP-102, 1978.

FIGURE 1.
Alternative Ownership and Management Arrangements for
Inner-City Supermarkets

		Ownership of Property		
		Private Party	Neighborhood or Consumers	Government
Operational Control and/or Management	Private Party	Conventional Business (Independent or Chain)	"Joint Ventures"	"State Store"
	Neighborhood		Neighborhood Market	
	Consumers		Consumer Co-op	
	Government	Public Utility		Government Commissary

Table 5.
Operating Performance of 161 Poverty and Non-Poverty Area Supermarkets,
Eight Cities, U.S., 1975*

Performance Factor	Non-Poverty Area Supermarkets	Poverty Area Supermarkets	
	Wt'd Average	Wt'd Average	As a % of Non-Poverty Area Stores
Total Annual Sales (\$)	\$4,767,997	4,139,694	86.8%
Grocery Department Sales ¹	66.50%	61.89%	93.1
Meat Department Sales ¹	25.27	29.88	118.2+++
Produce Department Sales ¹	7.93	7.78	98.1
Inventory Shrinkage ¹	.83	1.09	131.3+++
Grocery Department Shrinkage ²	.79	1.50	189.9+++
Coupon Redemptions ¹	.30	.20	66.7+++
Gross Margin—Total Store ¹	20.54	20.71	100.8
Grocery Department Gross Margin ²	18.13	17.28	95.3
Meat Department Gross Margin ²	21.25	22.28	104.8
Produce Department Gross Margin ²	31.93	32.04	100.3
Expenses			
Labor Expense—Total Store ¹	10.52	11.26	107.0++
Supply Expense ¹	.80	.91	113.8+++
Rent ¹	1.07	1.12	104.7+++
Real Estate Tax ¹	.23	.30	130.4+++
Advertising & Promotion ¹	1.02	1.12	109.8+++
Trading Stamp Expense ¹	.38	.43	113.2+++
Insurance ¹	.17	.29	170.6+++
Repairs & Maintenance ¹	.37	.54	145.9+++
Depreciation ¹	.41	.54	131.7+++
Utilities ¹	.78	.85	109.0+++
Services Purchased ¹	.23	.32	139.1+++
Transportation ¹	1.34	1.43	106.7+++
Security ¹	.08	.34	425.0+++
Cash Over & Short ¹	.02	.04	200.0+++
Bad Check Expense ¹	.06	.07	116.8
Other Operating Expenses ¹	2.02	1.95	96.5+
Total Operating Expense ¹	19.09	20.80	109.0++
Other Income ¹	1.52	1.45	95.4+++
Net Profit—Before Taxes ¹	2.38	1.02	42.9+++

¹Percent of Total Store Sales
²Percent of Department Sales

*The data for this table were compiled as weighted averages of the data supplied by each firm for each individual item. Because not all records were complete (a result of different accounting systems and other unknown reasons) the resulting composite records may not have cumulative integrity for the breakdowns of sales, gross margins, and expenses. Individual items are directly comparable, however, though they may differ somewhat with other published sources because of the average method of compilation.

+++Significant at the 99% level.
++Significant at the 95% level.
+Significant at the 90% level.

Source: Marion, Donald R., *Supermarkets in the City*, University of Massachusetts, Publication No. SP-102, p. 19.

stores, and group feeding are all arrangements that have been used in some situations, though possibly not in the inner-city. None of the three would probably be acceptable except as a temporary measure or on a very limited scale.

Other remedial measures would require background research. There should be careful investigation of the differing "qualities" of retail systems found from city to city, in an attempt to identify those factors which seem to have been causally related to the relatively "better" and relatively "poorer" delivery systems. Specific research on problem areas already identified would also be useful. Some examples might be procedures for coping with crime, the adequacy of present insurance coverage and alternative approaches for improvement, cost-effectiveness of alternative employment training programs, and cost-effectiveness of various public policy

options (tax credit for new inner-city investment, other tax favors or concessions, consumer or retailer subsidies, etc.).

Further research is also needed on the low-income consumer. Very little is currently known about the food needs and preferences, and the shopping behavior of the inner-city poor. Use of the middle-class, suburban "model" could be seriously in error, when used to design a food system for the inner-city.

Finally, there is also a need to examine more comprehensively the adequacy of the food retailing system that now serves inner-city areas throughout the U.S. (number and usage of stores, "quality" of service, etc.). In addition, the situation should be monitored periodically, to identify changes as they occur. This research is needed to provide a focus for efforts discussed earlier.

CONCLUDING COMMENTS

There can be little doubt that poverty continues to be a serious problem in this country, especially in the inner-city, where it is most persistent. Twenty-five million persons in 1976 were below the poverty income level. Evidence that the problem is continuing is found in the findings of a recently released report of the Joint Economic Committee, which indicated that conditions for U.S. cities continued to worsen during 1978 and 1979 (U.S. Congress). Among other problems, the report pointed to an inability to increase taxes and, in many instances, the loss of population, jobs, and taxable wealth. The report stated that "[I]n the coming decade, one can expect a growing number of cities to experience severe fiscal stress."

Food purchases are of unusual importance to the poor because of the large proportion of their incomes that are absorbed in the process. In addition, high food prices or difficulty in obtaining it, could result in a lower nutritive level in the diets of the poor. They are also considerably less mobile than higher income families. Ironically, the food system of the inner-city provides less service, on a per capita basis, than is available in other areas. As a result, residents of these areas have more restricted alternative sources from which to buy their food, than do residents of other areas. In turn, the limited choice will more often result in shopping at small stores or traveling to supermarkets in other areas. In either case, the net effect is almost certain to be higher cost food, than is the experience of residents of other areas.

The need to improve the inner-city food delivery system is a pressing, if not urgent, one. Numerous alternatives exist for attempting to correct the situation—joint ventures, minority

business, consumer co-ops, public policy actions, etc.—but none have yet been proven.

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Appendix Table 1.
Selected Descriptive and Consumer Food Expenditure Data, by Income Groups,
Northeast Region, 1972-74

Income group	Average family income	Percent of families	Average family size	Percent of income from public welfare	Owned vehicles per family	Homeowners/renters	Annual food expenditures				
							Total		At home		
							Per family	Per person	Per family	Per person	Percent of income
	<i>Dollars</i>	<i>Percent</i>	<i>Persons</i>	<i>Percent</i>	<i>Number</i>	<i>Percent</i>	—Dollars—				
All families	11,113	(14,233)	2.9	1.3	1.2	57/41	1,946	671	1,441	497	13
Under \$3,000	1,550	14.5	1.6	20.0	.4	36/55	958	599	776	485	50
\$3,000-3,999	3,474	5.4	2.1	20.1	.4	37/61	1,314	626	1,092	520	31
\$4,000-4,999	4,424	5.4	2.0	8.2	.7	44/54	1,272	636	1,033	517	23
\$5,000-5,999	5,444	4.5	2.3	4.0	.8	41/57	1,403	610	1,101	479	20
\$6,000-6,999	6,404	5.0	2.7	4.1	.9	43/53	1,527	566	1,232	456	19
\$7,000-7,999	7,464	5.1	2.7	2.0	.8	45/51	1,656	613	1,237	458	17
\$8,000-9,999	8,919	10.3	3.0	*	1.0	53/45	1,890	630	1,444	481	16
\$10,000-11,999	10,817	10.7	3.3	*	1.3	62/36	2,154	653	1,663	504	15
\$12,000-14,999	13,287	12.9	3.5	*	1.5	67/32	2,245	641	1,656	473	12
\$15,000-19,999	17,043	14.2	3.7	*	1.7	74/26	2,584	698	1,861	503	11
\$20,000-24,999	21,862	6.1	3.7	*	1.9	78/22	2,751	744	1,875	507	9
Over \$25,000	33,892	5.8	3.7	*	2.1	86/14	3,327	899	2,068	559	6

*Less than 0.5 percent.

Source: *Consumer Expenditure Survey: Dairy Survey, July 1972-June 1974*, U.S. Dept. of Labor, Bureau of Labor Statistics, Bulletin 1959, 1977.