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Senior Citizens: Food Expenditure Patterns and Assistance

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SENIOR CITIZENS: FOOD EXPENDITURE PATTERNS AND ASSISTANCE. Anthony E. Gallo, Larry E. Salathe, and William T. Boehm, National Economics Division, Economics, Statistics, and Cooperatives Service, U.S. Department of Agriculture. Agricultural Economic Report No. 426.

ABSTRACT

The Older Americans Act of 1965, amended in 1972, states that many senior citizens eat inadequately because they lack financial means, knowledge, and mobility to purchase and prepare nourishing foods. This report examines how food purchasing patterns of senior citizens compare with other age groups. The age of household head exerts a considerable influence on family food expenditure patterns. Households in which the head was 65 years or over spent more per person on food prepared at home and less on food away from home than households headed by persons of other age groups.

Key words: Age, Food expenditures, Government programs.

CONTENTS

	Page
Summary	i
Introduction	1
Age, Food Expenditures, and Money Income	1
Econometric Model and Results	3
Government and Private Food Programs for Senior Citizens	5
Food Stamps	5
Older Americans Act of 1965	7
Meals-on-Wheels	7
References	8
Appendix	9

Washington, D.C. 20250 June 1979

SUMMARY

Households headed by senior citizens had an average income of less than half of households headed by people under 65 years old during the 1972-73 study period. Senior citizens spent an average of about 22 percent of their before-tax income on food, compared with about 17 percent for those under 65.

Senior citizen households spent more per person on food at home than any other age group, but per person expenditures on food away from home were much lower. They also spent their at-home food dollar differently, allocating more to fresh fruits and vegetables and less to red meats, dairy products, beverages, and prepared foods.

Food stamps can ease the food-income burden for some low-income senior citizens. In addition, a growing portion of the senior citizen population participates in congregate meal settings under the Older Americans Act of 1965. A number of senior citizens also are served by Meals-on-Wheels, a program which brings prepared meals to the recipient's home.

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INTRODUCTION

The number of persons 65 years and older rose at almost three times the rate of the rest of the U.S. population between 1970 and 1978 (1). 1/ This high growth rate will likely continue. Senior citizens already comprise a significant portion of the U.S. population (11 percent), so they have an important influence on the types of foods marketed.

Consumer Price Index (CPI) weights reflect purchasing patterns of a typical U.S. urban household. If food purchase patterns of senior citizens differ from this U.S. average, movements in the food CPI may not reflect food cost changes for senior citizens. This report analyzes the food purchasing patterns of senior citizens as an aid to policymakers as they judge the adequacy of programs to improve this group's nutritional well-being.

Data for this analysis are primarily from the 1972-73 Bureau of Labor Statistics (BLS) Consumer Expenditure Diary Survey (CEDS). 2/ Those data are the most current and comprehensive available on household purchases. The survey, which has been taken every 10 to 12 years (1950, 1960-61, 1972-73), is the largest Government survey of its type; it covers 45,000 households. This massive data base, which took 2 years to collect, took over 4 years to prepare for public use. BLS released the data tapes for public use in 1978. ESCS, since then, has been preparing the data for analysis. The next survey will probably not be released for several years. As of January 1, 1978, the data have provided a basis for establishing expenditure weights in the Consumer Price Index.

The Older Americans Act of 1965, as amended in 1972, states that many senior citizens do not eat adequately because they lack financial means, knowledge, and mobility to purchase and prepare nourishing foods. Since passage of the amendments to that act, the CEDS data have made it possible to examine the actual food purchasing patterns of a geographically dispersed cross-section of senior citizens.

AGE, FOOD EXPENDITURES, AND MONEY INCOME

Households headed by persons 65 years of age and over accounted for 20 percent of all U.S. households. Yet, these households accounted for less than 11 percent of all household income and about 13 percent of all the money spent for food in 1972-73 (table 1). These same households accounted for about 14 percent of all at-home food purchases and only about 9 percent of the expenditures on away-from-home eating.

The average before-tax income of households whose head was 65 and over was about $5,000 in 1972-73, less than half as much as for households in which the head was

1/ Numbers in parentheses refer to items in references section.
2/ A detailed description of the CEDS is presented in (2).

Table 1--Proportion of income and food expenditures accounted for by household heads of specified age groups

Age of household head	Households	Income before taxes	Total food expenditures	Food-at-home expenditures	Food-away-from-home expenditures
			Percent		
Under 25	9.0	6.0	5.9	5.1	7.9
25-34	20.2	22.6	20.8	20.0	23.2
35-44	16.2	20.9	22.2	22.4	21.9
45-54	18.4	23.9	23.3	23.1	23.9
55-64	16.1	16.0	14.8	15.1	13.8
65 and over	20.1	10.7	12.9	14.3	9.3
Total 1/	100.0	100.0	100.0	100.0	100.0

1/ Numbers may not sum to 100 due to rounding.

Source: 1972-73 CEDS, Bur. Labor Stat.

Table 2--Household characteristics and weekly food expenditures

Item	Units	All households	Age of household head (years)					
			Under 25	25-34	35-44	45-54	55-64	65 and over
Households	No.	71,731	6,478	14,457	11,590	13,227	11,551	14,428
Average household size	do.	2.9	2.1	3.3	4.3	3.4	2.3	1.7
Average age of head	Years	47.7	21.7	29.2	39.5	49.4	59.5	73.3
Persons 65 and over	No.	.3	--	--	--	--	.1	1.3
Children under 18	do.	1.0	.6	1.5	2.3	1.1	.3	.1
Family income before taxes	Dollars	9,462	6,240	10,602	12,264	12,258	9,377	5,019
Weekly food expenditures	do.	32.38	21.00	33.48	44.56	40.96	29.79	20.82
Food at home	do.	23.68	13.42	23.46	32.76	29.69	22.31	16.80
Food away from home	do.	8.70	7.58	10.02	11.80	11.27	7.48	4.02

-- = value less than 0.05

Source: 1972-73 CEDS, Bur. Labor Stat.

younger (table 2). However, because the average household size differed drastically (1.7 for those whose head was over 64 compared to 3.2 persons for other families), per capita income showed far less of a disparity. Per capita income for the households whose head was over 64 averaged $2,950 compared with $3,304 for all other households in 1972-73.

Households in which the head was over 64 spent an average of 21.5 percent of their income for food in 1972-73, compared with 16.9 percent for households headed by people under 65 (table 3). The disparity was even greater for at-home food--17.5 percent measured against about 12 percent. Those under 65 spent about 5 percent of their income on away-from-home eating, while those over 64 averaged about 4 percent.

Table 3--Percentage of before-tax income spent on total food, food at home, and food away from home

Age of household head (years)	Percent of before-tax income spent on--		
	Food at home	Food away from home	Total food
		Percent	
Under 25	11.2	6.3	17.5
25-34	11.5	4.9	16.4
35-44	13.9	5.0	18.9
45-54	12.6	4.9	17.5
55-64	12.4	4.1	16.5
65 and over	17.4	4.1	21.5
Average	13.0	4.8	17.7

Source: 1972-73 CEDS, Bur. Labor Stat.

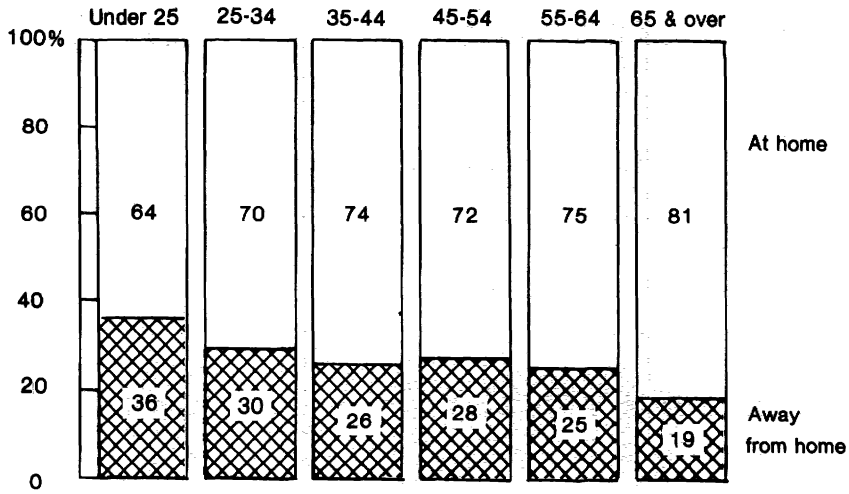
Households headed by senior citizens spent more per capita on food prepared at home than any other age group in 1972-73. The $9.88 spent per person on food prepared at home compares with $6.39 spent per person by the youngest age group. Senior citizen-headed households, however, spent considerably less per capita on food purchased away from home--$2.36, or about 25 percent less than the average of all other age groups, and a third less than the youngest age group.

Households headed by senior citizens spent less than 20 percent of their total food dollar for food away from home compared with almost 30 percent for those headed by persons under 65 (fig. 1). Senior citizen-headed households also allocated the at-home food dollar differently than other age groups (table 4). The 65 and over age group spent less of the food dollar on red meats, prepared foods, beverages, and dairy products than other age groups. A considerably greater portion of their food dollar, however, was spent on fresh fruits and vegetables.

ECONOMETRIC MODEL AND RESULTS

Some of these observed differences in food purchased by people of different age groups may be due to differences in income, family size, and other factors. An econometric model was applied to the CEDS data to identify the impact of age on household food purchase patterns. This model expressed per capita weekly household food expenditures as a function of per capita weekly household income, per capita weekly household income squared, per capita weekly value of bonus food stamps received,

Figure 1--Portion of Food Dollars Spent by Age of Household Head



Source: 1972-73, CEDS, Bur. Labor Stat.

Table 4--Allocation of food-at-home dollar

Food category	All households	Age of household head (years)					
		Under 25	25-34	35-44	45-44	55-64	65 and over
	Percent						
Cereal and bakery products	11.9	10.9	11.7	12.4	11.8	11.8	12.0
Red meats	28.9	26.2	28.0	29.5	30.0	29.6	27.6
Beef	15.0	13.7	15.0	15.7	16.4	15.5	14.4
Pork	8.7	7.9	8.4	8.8	8.8	9.3	9.1
Other	4.6	4.3	4.6	4.9	4.9	4.8	4.0
Poultry	4.6	3.8	4.2	4.4	4.7	4.8	5.0
Fish and seafood	2.8	2.9	2.8	2.6	2.9	3.0	2.8
Eggs	2.5	2.2	2.4	2.4	2.4	2.6	2.8
Dairy products	13.7	14.3	14.4	14.2	13.6	12.6	13.1
Fruits and vegetables	14.5	12.8	13.4	13.2	14.1	15.9	17.4
Fresh fruits	3.7	2.8	3.2	3.3	3.8	4.3	5.1
Fresh vegetables	4.4	3.7	4.0	4.1	4.4	5.0	5.2
Processed fruits	3.0	2.7	2.8	2.6	2.7	3.3	3.9
Processed vegetables	3.3	3.6	3.5	3.2	3.2	3.3	3.2
Sugar and sweets	3.0	2.8	2.6	2.8	2.6	2.9	3.0
Fats and oils	2.8	2.8	2.6	2.8	2.6	2.9	3.0
Nonalcoholic beverages	7.3	8.9	7.7	7.2	7.4	7.1	6.8
Miscellaneous prepared foods	8.1	12.4	9.8	8.1	7.4	6.8	6.4

Source: 1972-73 CEDS, Bur. Labor Stat.

location of the household (region and urbanization), and race, sex, and age of household's head. The multiple regression parameters which provide estimates of the impact of the age of the household head on per capita weekly food purchases are presented in table 5. The remaining parameter estimates are presented in the appendix.

Dollar estimates in table 5 show the difference in per capita weekly household food purchases of households in which the head is of a particular age compared with expenditures of households in which the head is 65 years or older. For example, table 5 shows that the under 25 group spent $1.45 less per capita on total food than did the 65 and over group.

Age of the household head, after a control for other factors, exerts a significant influence on household food purchasing patterns. A household in which the head was 65 and over spent $3.59 more per person per week on food at home, but $1.25 less per person per week on food away from home than households headed by persons between 25 and 34 years. For all food-at-home expenditure categories except miscellaneous prepared foods, the 65 and over age group spent significantly more per person per week than did the 25 to 34 age group. This also held true when the 65 and over group was compared to the 35 to 44 group.

Per capita weekly expenditures on beef, pork, other red meats, fish and seafood, nonalcoholic beverages, miscellaneous prepared foods, and food away from home were not significantly different between households headed by the 45-54 and the over 64 groups. Compared with the 55 to 64 group, households with heads 65 and over spent significantly more per person per week on food at home, cereal and bakery products, poultry, dairy products, fresh fruits, fresh vegetables, processed fruits, and sugar and other sweets. They spent significantly less, however, per person per week on pork.

GOVERNMENT AND PRIVATE FOOD PROGRAMS FOR SENIOR CITIZENS

Many senior citizens live on fixed incomes while retail food prices increase rapidly. This situation has generated the need for public assistance to help ease their food-income burden. Public aid comes in two forms: (1) cash grants which bolster income, and (2) in-kind assistance (resources for purchase of specific products). Income, rather than age, is generally the prime criterion in determining program eligibility.

Food Stamps

Senior citizens with low incomes are often able to increase their food purchasing power by participating in the Food Stamp Program (FSP). Households headed by senior citizens comprise about 20 percent of all U.S. households, but about 16 percent of all food stamp recipients (table 6) (3).

The average annual before-tax income of senior-citizen households participating in the FSP in 1972-73 was about $1,930, less than 40 percent of the income of senior-citizen households not receiving food stamps. While the incomes of these two groups were substantially different, their food purchases were quite similar. For example, senior-citizen households participating in the FSP spent $3.11 less per week on food away from home, but only $1.01 less per week on food at home than nonparticipating senior citizens. Within the food-at-home category, senior-citizen households participating in the FSP spent 31 and 23 cents more per week on pork and poultry, respectively, but 34, 31, and 42 cents less per week on beef, dairy products, and fruits, respectively, than non-FSP senior-citizen households. The differences were even smaller for the remaining at-home food categories. These differences cannot be attributed to household size, since household size averaged 1.7 persons for households in both groups.

A large number of senior citizens eligible for benefits are not participating in public food assistance programs, according to a recent Food and Nutrition Service study (4). About 40 percent of the eligible nonparticipants were over 65, the study noted.

Table 5--Differences in per capita weekly food expenditures: Households headed by members of various age groups compared with households in which the head is 65 and over

Expenditure category	Age of household head (years)				
	Less than 25	25-34	35-44	45-54	55-64
	Dollars				
Food, total	-1.4463	-2.3346	-2.0160	-1.2678	-0.4340
	1/(-4.17)	(-8.54)	(-6.89)	(-4.42)	(-1.46)
Food at home	-3.5684	-3.5885	-2.8304	-1.4988	-.4331
	(-14.12)	(-18.00)	(-13.25)	(-7.17)	(-2.00)
Cereal and bakery products	-.5075	-.4910	-.3430	-.2176	-.0723
	(-13.52)	(-16.59)	(-10.82)	(-7.01)	(-2.25)
Beef	-.5261	-.5035	-.3391	-.0815	-.0493
	(-6.93)	(-8.41)	(-5.29)	(-1.30)	(-.76)
Pork	-.3296	-.3102	-.2210	-.0482	.1097
	(-6.05)	(-7.22)	(-4.80)	(-1.07)	(2.35)
Other red meats	-.1221	-.1121	-.0605	.0419	.0288
	(-4.47)	(-5.20)	(-2.62)	(1.85)	(1.23)
Poultry	-.3703	-.2838	-.2371	-.1207	-.0651
	(-10.77)	(-10.47)	(-8.17)	(-4.25)	(-2.21)
Fish and seafood	-.0386	-.0932	-.0735	-.0144	-.0093
	(-1.55)	(-4.74)	(-3.50)	(-.70)	(-.43)
Eggs	-.1633)	-.1355	-.1133	-.0766	-.0181
	(-10.97)	(-11.55)	(-9.01)	(-6.23)	(-1.42)
Dairy products	-.3926	-.3958	-.3362	-.2115	-.1346
	(-9.20)	(-11.76)	(-9.32)	(-5.99)	(-3.68)
Fresh fruits	-.3368	-.2995	-.2547	-.2039	-.0819
	(-14.95)	(-16.85)	(-13.38)	(-10.94)	(-4.24)
Fresh vegetables	-.3199	-.2885	-.2306	-.1606	-.0527
	(-14.04)	(-16.06)	(-11.98)	(-8.52)	(-2.69)
Processed fruits	-.2163	-.1966	-.2056	-.1783	-.0863
	(-11.11)	(-12.81)	(-12.50)	(-11.08)	(-5.17)
Processed vegetables	-.0993	-.0949	-.0819	-.0419	.0004
	(-5.55)	(-6.73)	(-5.42)	(-2.83)	(.03)
Sugar and other sweets	-.1763	-.1490	-.1231	-.0930	-.0448
	(-9.14)	(-9.80)	(-7.55)	(-5.83)	(-2.70)
Nonalcoholic beverages	-.0473	-.1680	-.1389	-.0024	-.0123
	(-1.49)	(-6.70)	(-5.17)	(-.09)	(-.45)
Fats and oils	-.1367	-.1377	-.1058	-.0929	.0080
	(-7.79)	(-9.95)	(-7.14)	(-6.40)	(.53)
Miscellaneous prepared foods	.2069	.0616	.0232	-.0054	.0431
	(5.45)	(2.06)	(.72)	(-.17)	(1.32)
Food away from home	2.1224	1.2540	.8143	.2309	-.0009
	(9.19)	(6.89)	(4.17)	(1.21)	(-0)

1/ T-values in parentheses.

Table 6--Food stamp households and all households by age of household head

Age of head	Food stamp recipients	All households
	Percent	
Under 35	43	29
35-44	17	16
45-54	13	18
55-64	11	16
65 and over	16	20
Total 1/	100	100

1/ Numbers may not sum to 100 due to rounding.

Source: Food and Nutrition Serv., U.S. Dept. Agr.

Older Americans Act of 1965

The Older Americans Act of 1965 was passed in recognition that low-income senior citizens, in addition to lacking the financial means to acquire nourishing food, also "have feelings of rejection and loneliness which obliterate the incentive necessary to prepare and eat nourishing meals." Nutrition programs have been established under this act throughout the country that provide at least one hot meal a day, 5 days a week, to people over 60 and their spouses (regardless of age). This meal must provide one-third of the Recommended Dietary Allowances established by the National Academy of Sciences. Under Title 3 of the act, the U.S. Department of Agriculture provides a stipulated value of food (38.5 cents for each meal in fiscal year 1980) toward these meals.

Meal sites must be in a congregate setting where recipients have the opportunity to socialize, and must be in urban and rural settings with heavy concentrations of senior citizens. There were about 9,000 U.S. meal sites in 1977 (table 7). Recipients pay only if they feel they have the means to do so. About 10.5 percent of the eligible recipients participated in the program during fiscal year 1978.

Meals-on-Wheels

A number of private volunteer programs also assist senior and incapacitated U.S. citizens. These programs have little impact on total food consumption. They are important, however, for the many who lack the mobility or financial capability to provide their own meals.

One such program is Meals-on-Wheels, which provides meals to people unable to serve themselves. A substantial portion of its recipients are over 60. An estimated 50,000 to 100,000 people who are incapacitated purchase meals through this program.

Meals-on-Wheels program recipients pay between $10 and $14 per week for 10 meals, one hot meal and one cold meal delivered once daily for 5 days. The bulk of all meals

Table 7--Meals and persons served under Older Americans Act of 1965

Item	Unit	Fiscal year			
		1975	1976	1977	1978
Persons served	Thous.	1,277	1,722	2,855	1/3,500
Number of Americans 60 years and older	Thous.	31,661	32,259	32,855	33,370
Eligibles participating	Pct.	4.0	5.4	8.7	10.5
Sites	No.	4,710	6,672	9,166	1/10,060
Meals served	Mil.	48.6	64.3	101.1	1/130.0

1/ Estimate, Econ. Stat. Coop. Serv., U.S. Dept. Agr.

Source: Dept. of Health, Education, and Welfare, the administrator of the program.

served are purchased from caterers and in some instances from hospitals and other institutions. A number of Meals-on-Wheels kitchens, especially in the rural areas, still serve home-prepared foods. Some units provide specialized meals, such as kosher food and restricted diets.

The meals are delivered by volunteers who often look after the overall needs of senior citizens.

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Appendix table 1--Estimated coefficients and relevant statistics obtained by regressing weekly per capita household food expenditures on selected independent variables, 1972-73 CEDS

Independent variable 1/	Expenditure category: Total food	Food at home	Cereal and bakery products	Beef and veal	Pork	Other red meats	Poultry	Fish and seafood	Eggs	Dairy products	Fresh fruits
INTERCEPT	8.1577	9.6747	1.2058	0.8931	1.1358	0.3465	0.8545	0.2854	0.4193	1.1257	0.5087
	2/(17.7)	(28.7)	(24.1)	(8.8)	(15.7)	(9.5)	(18.7)	(8.6)	(21.2)	(19.8)	(17.0)
URBN	1.5560	.6267	-.0053	.3234	.0439	.0534	.0665	.0648	.0031	.0423	.0430
	(6.6)	(3.6)	(-.2)	(6.2)	(1.2)	(2.9)	(2.8)	(3.8)	(.3)	(1.5)	(2.8)
NE	1.5595	1.5206	.1955	.3104	.0744	.2452	.1431	.1685	.0006	.1256	.0667
	(5.9)	(7.9)	(6.8)	(5.3)	(1.8)	(11.7)	(5.4)	(.8.9)	(.1)	(3.9)	(3.9)
NC	-.7304	-.1785	.0051	-.0147	.1285	.0785	-.0716	-.0580	-.0361	-.0499	-.0392
	(-2.9)	(-1.0)	(.2)	(-.3)	(3.3)	(4.0)	(-2.9)	(-3.2)	(-3.4)	(-1.6)	(-2.4)
S	-.0581	.0002	.0102	-.0191	.1379	.0114	.0476	.0204	.0097	-.0801	-.0995
	(-.2)	(.0)	(.4)	(-.4)	(3.5)	(.6)	(1.9)	(1.1)	(.9)	(-2.6)	(-6.1)
WHT	.8414	.2009	.1852	-.0289	-.4357	-.0322	-.2853	-.1366	-.0473	.3794	.0196
	(3.0)	(1.0)	(6.0)	(-.5)	(-9.8)	(-1.4)	(-10.1)	(-6.7)	(3.9)	(10.8)	(1.1)
AGE1	-1.4463	-3.5684	-.5075	-.5261	-.3296	-.1221	-.3703	-.0386	-.1633	-.3926	-.3368
	(-4.2)	(-14.1)	(-13.5)	(-6.9)	(-6.1)	(-4.5)	(-10.8)	(-1.6)	(-11.0)	(-9.2)	(-15.0)
AGE2	-2.3346	-3.5885	-.4910	-.5035	-.3101	-.1121	-.2838	-.0932	-.1355	-.3958	-.2995
	(-8.5)	(-18.0)	(-16.6)	(-8.4)	(-7.2)	(-5.2)	(-10.5)	(-4.7)	(-11.6)	(-11.8)	(-16.9)
AGE3	-2.0160	-2.8304	-.3430	-.3391	-.2210	-.0605	-.2371	-.0735	-.1133	-.3362	-.2547
	(-6.9)	(-13.3)	(-10.8)	(-5.3)	(-4.8)	(-2.6)	(-8.2)	(-3.5)	(-9.0)	(-9.3)	(-13.4)
AGE4	-1.2678	-1.4988	-.2176	-.0815	-.0482	.0419	-.1207	-.0144	.0766	-.2115	-.2039
	(-4.4)	(-7.2)	(-7.0)	(-1.3)	(-1.1)	(-1.9)	(-4.3)	(-.7)	(-6.2)	(-6.0)	(-10.9)
AGE5	.4340	-.4331	-.0723	-.0493	.1097	.0287	-.0651	-.0092	-.0181	-.1346	-.0818
	(-1.5)	(-2.0)	(-2.3)	(-.8)	(2.4)	(1.2)	(-2.2)	(-.4)	(-1.4)	(-3.7)	(-4.2)
MALE	-.8152	-.7712	-.1034	.0752	-.0188	-.0074	-.0930	-.0188	-.0384	-.0984	-.0891
	(-3.9)	(-5.0)	(-4.5)	(1.6)	(-.6)	(-.5)	(-4.4)	(-1.2)	(-4.2)	(-3.8)	(-6.5)
PCBONUS	.2481	.2924	.0391	.0279	.0503	.0080	.0258	.0031	.0105	.0364	.0021
	(2.9)	(4.7)	(4.3)	(1.5)	(3.8)	(1.2)	(3.1)	(.5)	(2.9)	(3.5)	(.4)
PCINCOM*10	.6932	.2352	.0149	.0486	.0197	.0068	.0067	.0122	.0017	.0224	.0159
	(32.6)	(15.2)	(6.5)	(10.4)	(5.9)	(4.0)	(3.2)	(8.0)	(1.9)	(8.6)	(11.5)
SQPCINC*10000	-.3756	-.1932	-.0170	-.0299	-.0215	-.0023	-.0067	-.0082	-.0001	-.0191	-.0142
	(-9.8)	(-6.9)	(-4.1)	(-3.6)	(-3.6)	(-.7)	(-1.8)	(-3.0)	(-.1)	(-4.0)	(-5.7)
R^2 3/	.21	.10	.06	.04	.03	.03	.05	.03	.03	.05	.08

See footnotes at end of table.

Continued--

Appendix table 1--Estimated coefficients and relevant statistics obtained by regressing weekly per capita household food expenditures on selected independent variables, 1972-73 CEDS--Continued

Independent variable 1/	Expenditure category							
	Fresh vegetables	Processed fruits	Processed vegetables	Sugar and sweets	Fats and oils	Nonalcoholic beverages	Miscellaneous prepared foods	Food away from home
INTERCEPT	0.5096	0.3812	0.2953	0.3668	0.3759	0.5516	0.4391	-1.5163
	(16.8)	(14.7)	(12.4)	(14.3)	(16.1)	(13.0)	(8.7)	(-4.9)
URBN	.0802	.0200	.0319	-.0874	-.0533	.0143	-.0115	.9294
	(5.2)	(1.5)	(2.6)	(-6.6)	(-4.5)	(.7)	(-.4)	(5.9)
NE	.0709	.0195	.0218	-.0223	-.0104	.1307	-.0155	.0390
	(4.1)	(1.3)	(1.6)	(-1.5)	(-.8)	(5.4)	(-.5)	(.2)
NC	-.0541	-.0584	-.0115	-.0054	-.0089	.0309	-.0138	-.5518
	(-3.3)	(-4.2)	(-.9)	(-.4)	(-.7)	(1.4)	(-.5)	(-3.3)
S	-.0273	-.0468	.0432	-.0156	.0001	.0805	-.0723	-.0584
	(-1.7)	(3.3)	(3.3)	(-1.1)	(.1)	(3.5)	(-2.6)	(-.4)
WHT	.0181	.0496	.0119	.0889	.0591	.1238	.2333	.6405
	(1.0)	(3.1)	(.8)	(5.6)	(4.1)	(4.8)	(7.5)	(3.4)
AGE1	-.3199	-.2163	-.0993	-.1763	-.1367	-.0472	.2069	2.1224
	(-14.0)	(-11.1)	(-5.6)	(-9.1)	(-7.8)	(-1.5)	(5.5)	(9.2)
AGE2	-.2885	-.1966	-.0949	-.1490	-.1376	-.1680	.0616	1.2546
	(-16.1)	(-12.8)	(-6.7)	(-9.8)	(-10.0)	(-6.7)	(2.1)	(6.9)
AGE3	-.2306	-.2055	-.0819	-.1231	-.1058	-.1388	.0232	.8143
	(-12.0)	(-12.5)	(-5.4)	(-7.6)	(-7.1)	(-5.2)	(.7)	(4.2)
AGE4	-.1606	-.1783	-.0419	-.0930	-.0929	-.0024	-.0054	.2309
	(-8.5)	(-11.1)	(-2.8)	(-5.8)	(-6.4)	(-.1)	(-.2)	(1.2)
AGE5	-.0526	-.0863	.0004	-.0448	.0080	-.0123	.0431	-.0009
	(-2.7)	(-5.2)	(.1)	(-2.7)	(.5)	(-.5)	(1.3)	(-.1)
MALE	-.0716	-.0753	-.0306	-.0256	-.0342	-.1089	-.0398	-.0444
	(-5.2)	(-6.3)	(-2.8)	(-2.2)	(-3.2)	(-5.6)	(-1.7)	(-.3)
PCBONUS	.0161	.0017	.0159	.0100	.0118	.0248	.0088	-.0443
	(2.9)	(.4)	(3.6)	(2.1)	(2.8)	(3.2)	(1.0)	(-.8)
PCINCOM*10	.0145	.0126	.0068	.0062	.0033	.0210	.0228	.4572
	(10.4)	(10.6)	(6.2)	(5.2)	(3.1)	(10.8)	(9.8)	(32.3)
SQPCINC*10000	-.0106	-.0107	-.0049	-.0087	-.0027	-.0205	-.0167	-.1825
	(-4.2)	(-5.0)	(-2.5)	(-4.1)	(-1.4)	(-5.8)	(-4.0)	(-7.1)
R^2 3/	.07	.05	.02	.02	.02	.03	.03	23

1/ See appendix figure 1 for definition of variables.
2/ T-values in parentheses.
3/ Coefficient of determination.

Appendix figure 1--Definition of Independent Variables

URBN--Equals 1 if household resides in an urban location, 0 otherwise.

NE--Equals 1 if household resides in the northeast region, 0 otherwise.

NC--Equals 1 if household resides in the north central region, 0 otherwise.

S--Equals 1 if household resides in the southern region, 0 otherwise.

WHT--Equals 1 if household head is other than black, 0 otherwise.

AGE1--Equals 1 if household head is less than 25 years of age, 0 otherwise.

AGE2--Equals 1 if household head is between 25 and 34 years of age, 0 otherwise.

AGE3--Equals 1 if household head is between 35 and 44 years of age, 0 otherwise.

AGE4--Equals 1 if household head is between 45 and 54 years of age, 0 otherwise.

AGE5--Equals 1 if household head is between 55 and 64 years of age, 0 otherwise.

MALE--Equals 1 if household head is male, 0 otherwise.

PCINCOM--Weekly (before tax) money income of household divided by household size.

PCBONUS--Exchange value of food stamps purchased last month minus the amount paid for food stamps purchased last month all divided by household size and the number of weeks in an average month.

SQPCINC--Weekly (before tax) money income of household divided by household size quantity squared.