Food Spending and the Elderly

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In the next decade and beyond, significant demographic changes—especially the rising number of elderly—will offer new challenges for the U.S. food industry. Elderly people generally eat lesser amounts than energy-burning teens and young adults. Today's elderly also dine out less frequently than their younger counterparts. If these eating and spending patterns continue and America's older population meets growth expectations, growth in real per capita food expenditures will likely stagnate.

Analyses of food spending patterns in 1997 revealed that households with heads age 65-74 spent $41.44 per capita weekly on food, more than the $36.21 spent by households with heads age 75 and older but less than households with 45-64 year-old heads. Households with heads between age 65 and 74 spent more on cereal and cereal products, dairy products, poultry, and processed vegetables than other age groups, while the older elderly spent more on fruit and nonalcoholic beverages. Weekly away-from-home food expenditures for households with heads age 65-74 were $13.04 per capita, less than all age groups except the older elderly and households headed by adults younger than 25.

The U.S. Bureau of the Census projects the number of elderly (people age 65 and older) will grow over 50 percent between 2001 and 2020, while the total U.S. population will grow only 17 percent over the same period. In 2020, about 17 percent of the U.S. population will be over age 65, compared with about 12 percent in 2001. By 2030, the projected elderly population will reach 20 percent of the U.S. population. The "graying" of America makes analysis of expenditure patterns by the elderly increasingly important.

Households with heads age 75 and older spent nearly three-quarters of their weekly food expenditures on at-home foods. Away-from-home food expenditures by this age group were 30 percent lower than the average of all households.

Credit: Ken Hammond, USDA.

In the next two decades, aging baby boomers will create a growing number of younger elderly persons who may have different tastes and food preferences than the older elderly due to differences in educational levels, marital status, gender ratios, race, ethnicity, economic resources, attitudes, and values. Most previous studies of food expenditures have treated elderly consumers age 65 and older as a homogeneous group. USDA's Economic Research Service (ERS) has examined food expenditure patterns of the elderly in general, as well as expenditure differences between the younger elderly (age 65-74) and the older elderly (age 75 and older). Initial growth in the elderly population will be concentrated in the younger category of elderly households, which makes comparisons of expenditures by the younger group with the older group valuable to marketers, policymakers, and researchers.

To analyze elderly food expenditure patterns, we used the Bureau of Labor Statistics' 1997 Continuing Expenditure Survey (CES), particularly the diary survey component of the CES, which includes interviews of 3,000-5,000 house-

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holds conducted every 3 months over a 1-year period. The diary survey obtains data on small, frequently purchased items normally difficult to recall, including foods and beverages. The survey typically collects 2 weeks of data, although some households report only 1 week. Households that reported only 1 week of expenditures were eliminated. Out of 5,149 households that reported 2 weeks of purchases in 1997, 1,075 households were headed by persons age 65 and older—588 were headed by persons age 65-74, and 487 were headed by persons age 75 and older. We examined three aggregate food categories—total food, food at home, and food away from home—and 17 individual food at home categories.

The Elderly Spend Less on Away-From-Home Foods

We first looked at average food expenditures by the elderly and contrasted them with expenditures by other age groups. Households with heads age 75 and older spent an average of $36.21 per capita per week for food, less than the $41.44 for those age 65-74 but higher than households with heads younger than age 45 (table 1). Both elderly groups spent between 8 and 10 percent of their average weekly income on food, compared with an average of 5 percent for all households. The proportion of income spent for food by household heads under age 25 was 9 percent, while the 35-44 age group spent 4 percent of its income on food.

Nearly 73 percent of weekly food expenditures for the oldest group was spent on at-home food. Away-from-home food expenditures for those over age 75, at $9.89 per capita per week, were 30 percent lower than the average of all households and 23 percent lower than the 65-74 age group. Households with heads age 45-54 spent $17.12 per capita per week eating out, the highest amount, followed by those age 25-34, who spent $14.91 per capita per week.

Households in both elderly groups spent more per capita on nonalcoholic beverages than on any of the other 16 individual food cat-

Table 1—Food Expenditures Peak During High Earning Years

Item	All households	Age of household head						
		<25	25-34	35-44	45-54	55-64	65-74	75+
				Number				
Households	5,149	376	928	1,144	959	667	588	487
Average size	2.57	1.98	2.89	3.34	2.81	2.18	1.85	1.51
				Years				
Average age of household head	48	21	30	39	49	59	69	81
				Number				
Persons over age 64	.31	.01	.02	.02	.04	.09	1.38	1.33
Children under age 18	.71	.52	1.12	1.43	.63	.17	.09	.02
				Dollars				
Annual pre-tax income	39,926	15,666	40,247	48,788	55,260	41,734	27,492	19,425
Weekly per capita food expenditures	37.97	28.01	34.85	35.62	42.67	43.40	41.44	36.21
Food away from home	14.20	12.80	14.91	14.20	17.12	13.96	13.04	9.89
Food at home	23.77	15.20	19.94	21.42	25.56	29.44	29.39	26.31
Cereal and cereal products	1.29	.95	1.19	1.19	1.32	1.45	1.50	1.35
Bakery products	2.50	1.60	2.19	2.19	2.72	3.06	3.00	2.84
Dairy products	2.62	1.81	2.60	2.60	2.72	3.09	3.14	2.90
Beef	1.72	1.44	1.53	1.53	2.03	2.06	1.97	1.64
Pork	1.27	.66	1.06	1.06	1.46	1.75	1.57	1.56
Poultry	1.17	.72	1.10	1.10	1.25	1.38	1.51	1.15
Fish and seafood	.76	.35	.65	.65	.91	1.04	.90	.76
Other meats	.78	.47	.75	.75	.81	1.02	.99	.81
Eggs	.28	.20	.22	.22	.29	.35	.36	.36
Fats and oils	.70	.34	.56	.56	.70	.94	.89	.87
Fresh fruits	1.37	.85	1.09	1.09	1.32	1.72	1.80	2.12
Processed fruits	.89	.54	.74	.74	.93	1.08	1.14	1.17
Fresh vegetables	1.24	.58	1.02	1.02	1.36	1.70	1.70	1.47
Processed vegetables	.66	.37	.57	.57	.73	.83	.84	.73
Nonalcoholic beverages	4.12	1.85	3.50	3.50	4.36	5.38	5.01	5.44
Sugar and other sweets	1.01	.54	.87	.87	1.10	1.37	1.34	1.01
Miscellaneous prepared foods	3.43	2.43	3.32	3.32	3.61	4.04	3.44	3.59

Source: Bureau of Labor Statistics' 1997 Continuing Expenditure Survey.

Food expenditures differed significantly among elderly households in rural and urban areas. For all elderly, rural households spent less on total food, at-home food, away-from home food, and five categories of at-home food.

Credit: PhotoDisc.

egories (which was also true for households with heads between age 25 and 64). For elderly households and households with heads age 25-64, weekly per capita expenditures for miscellaneous prepared foods were second highest and dairy products were third.

Spending Differences Exist for Eight At-Home Categories

We tested for significant expenditure differences between the two elderly groups. The differences are based on age, independent of differences in income and other socioeconomic factors. Households with heads age 65-74 and households with heads age 75 and older spent significantly different amounts for total food, food at home, and food away from home, as well as for eight individual at-home food categories. The older elderly group spent less on total food, food at home, and food away from home than the younger group.

The largest differences in at-home food spending were for sugar and other sweets, poultry, and nonalcoholic beverages (table 2). The older group (age 75 and older) spent $0.94 per capita per week less on sugar and other sweets, $0.81 less on poultry, and $0.80 less on nonalcoholic beverages than those age 65-74. The older group also spent less on dairy products, processed and fresh vegetables, and bakery products. However, the older group spent $0.68 more for fresh fruits. Expenditures for the other individual food categories—cereal and cereal products, beef, pork, fish and seafood, other meats, eggs, fats and oils, processed fruits, and miscellaneous prepared foods—did not differ statistically between the two elderly groups.

Effects of Socioeconomic Factors Vary

We estimated the effect of seven socioeconomic characteristics on food expenditures for all households age 65 and older and for the two elderly groups separately when statistically significant differences existed. The socioeconomic factors include income, family size, region of residence, rural versus urban, education level, race, and marital status.

The impact of these characteristics on expenditure patterns for foods and beverages by the elderly were mixed and varied. While region of residence, education level, and marital status had more significant effects on more food expenditure categories for all households with heads age 65 and older, these factors and the remaining factors had fewer significant effects on the two separate elderly groups. Region and education had the greatest impact on expenditures for individual at-home food categories for the two separate elderly groups.

Income

Yearly pre-tax income for all households in the survey averaged $39,926, including wages, dividends, pensions, and cash assistance provided by the Government. Yearly income was $27,492 for the younger elderly group and $19,425 for the older group. Average income for the under-25 group was lower than the oldest group at $15,666 per year. The 45-54 age group had the highest average yearly income, $55,260.

Income had a significant and positive effect on expenditures for most aggregate and individual food categories for people age 65 and older. Estimated income elasticities (the percent change in expenditures given a 1-percent change in income) for all elderly were 0.12 for food at home and 0.16 for food away from home. The largest income effects among individual categories were for fish and seafood (0.36), beef (0.21), and sugar and other sweets (0.13). We found no relationship between income and expenditures for cereal and cereal products, poultry, eggs, and fats and oils.

Income had more significant impacts on expenditures for aggregate and individual food categories for the age 75 and older group than for the age 65-74 group (where significant spending differences existed between the two groups). Income had a significant effect on seven of the individual food expenditure categories for the oldest group but only four categories for the younger elderly group. In general, income effects were relatively small for most individual food categories.

Family size

Family size had very little statistical effect on expenditures, possibly because most elderly households consist of either one or two people. However, family size had significant effects on two aggregate food categories and two individual food categories. For each additional person in households with heads age 65 and older, per capita per week food expenditures decreased $2.97. Interestingly, for the 65-74 age group, per capita food expenditures decreased $3.90 for each person added to the household.

For food at home, per capita expenditures decreased $3.45 when a person was added to a household in the oldest age group, while expenditures for the younger elderly group decreased $3.84 for each additional person. Bakery products and fresh fruit were the only individual food categories where family size had an impact on expenditures but only for the 65-74 age group. Expenditures on bakery products decreased $0.21 for all elderly and

$0.37 for the 65-74 age group for each person added to a household. Expenditures for fresh fruit decreased $0.41 for each additional person in the 65-74 age group.

Region of residence

The effects of region of residence on elderly food expenditures were measured relative to expenditures in the Midwest. Regional differences may exist due to differing tastes and preferences and/or differences in regional prices. At-home food expenditures for all elderly households were higher in the Northeast ($3.29 per capita per week) than in the Midwest. In contrast, away-from-home food expenditures for all elderly households were significantly lower for the Northeast, West, and South, compared with the Midwest.

Away-from-home food expenditures for the 65-74 age group were lowest in the West ($5.08) and the South ($8.47), compared with the Midwest. Per capita weekly expenditures for households with heads age 75 and older were $4.95 lower in the West than the Midwest.

Ten individual food categories displayed varied degrees of regional effects on food expenditures. Elderly households in the Northeast, West, and South had markedly higher expenditures for fish and seafood than elderly households in the Midwest. Elderly households in the Northeast spent more on poultry than elderly households in the Midwest. Elderly households in the West spent $1.26 per capita per week less on pork than elderly households in the Midwest.

Rural versus urban

Significant differences in elderly food expenditures were found for rural households relative to urban households. For all elderly, rural households spent $7.63 per capita per week less for total food, $4.27 less for food at home, and $5.56 less for food away from home than urban households. For the 65-74 age group, rural households spent less for total food. Rural households with heads age 75 and older spent less for all three aggregate food categories than their urban counterparts.

All elderly rural households (age 65 and older) spent less per capita per week than their urban counterparts for five individual food categories: bakery products ($0.54), fresh fruits ($1.96), fresh vegetables ($0.58), processed vegetables ($0.35), and miscellaneous prepared foods ($1.41). In separating the two age groups, the 65-74 rural age group spent $1.96 per capita per week less on fresh fruits than the urban group. In the 75-and-older group, rural households spent $3.10 per capita per week less on fresh fruit and $0.83 less for fresh vegetables.

Education level

Education, measured in years of formal schooling, also had a significant effect on expenditures by elderly households. Expenditure differences were measured relative to households with heads holding high school degrees. For all elderly, households with heads with postgraduate education (more than 4 years of college) spent more for total food per capita ($13.74), at-home food ($5.65), and away-from-home food ($12.05) than those with heads holding high school degrees. Households with heads holding postgraduate degrees also spent more on nine individual food categories and less on two.

For the individual elderly groups, those households with heads age 65-74 with postgraduate degrees spent more than households with heads holding high school degrees for total food ($18.80), food at home ($11.28), food away from home ($13.10) and six individual food categories. Households with heads holding college degrees in this younger age group spent more on sugar and other sweets and on bakery products and less on nonalcoholic beverages. In the 75-and-older age

Table 2—Significant Differences in Food Expenditures Exist Due to Age

Category	Statistically estimated differences in weekly per capita expenditures between older elderly (age 75 and older), compared with younger elderly (age 65-74)
	Dollars
Total food	-5.99
Food away from home	-5.49
Food at home	-2.65
Cereal and cereal products	None
Bakery products	-.38
Dairy products	-.52
Beef	None
Pork	None
Poultry	-.81
Fish and seafood	None
Other meats	None
Eggs	None
Fats and oils	None
Fresh fruits	.68
Processed fruits	None
Fresh vegetables	-.42
Processed vegetables	-.21
Nonalcoholic beverages	-.80
Sugar and other sweets	-.94
Miscellaneous prepared foods	None

Source: USDA's Economic Research Service estimates based on Bureau of Labor Statistics' 1997 Continuing Expenditure Survey.

group, households with heads with postgraduate degrees spent $10.23 more per capita per week for away-from-home food and $1.25 more for dairy products.

Race

Elderly Black households spent $9.11 less per capita per week for total food and $13.13 less for away-from-home food, compared with elderly non-Black households. Elderly Blacks spent $2.66 more for fish and seafood, $2.60 more for pork, and $2.18 more for poultry than elderly non-Blacks. Elderly Black households also spent less for miscellaneous prepared foods, bakery products, and dairy.

After splitting the elderly into two age groups, we found that Blacks age 65-74 spent $10.26 less for away-from-home food, $1.07 less for bakery products, and $2.18 less for poultry. Within the older elderly group, Blacks spent $13.98 less per capita per week for total food and $16.49 less for away-from-home food. Black households with heads over age 75 spent less for dairy, bakery products, and fresh vegetables.

Marital status

Marital status also played a role in the level of elderly food expenditures. For all elderly households, households headed by an unmarried male spent $8.48 per capita per week more on total food, compared with households with a married couple. Households headed by unmarried females spent $5.88 less and households headed by unmarried males spent $9.16 more on away-from-home food than households headed by married couples. Households headed by unmarried females spent less in seven individual food categories but more on fresh fruits. Households headed by unmarried males spent less per capita per week than households headed by married couples in six categories, including beef ($1.73), fish and seafood ($1.58), and fats and oil ($1.23), and more for sugar and other sweets ($1.55).

Within the 65-74 age group, households headed by unmarried females spent $8.79 less per capita per week on total food, $10.12 less on away-from-home food, and less on three individual food categories than their married counterparts. Households headed by unmarried males spent $8.52 more on away-from-home food, $1.71 more for nonalcoholic beverages, $0.98 more for fresh vegetables, and less for sugar and other sweets, fresh vegetables, poultry, bakery, and processed vegetables than their married counterparts.

Within the 75-and-older age group, households headed by unmarried males spent $12.63 more for total food and $11.29 more for away-from-home food than households headed by married couples. No significant differences were found for individual food categories in this age group.

Over the next 20 years, when today's baby boomers are in their mid-sixties and early seventies, the number of people in the United States age 65-74 will grow from 18.2 million to 31.5 million. At the same time, 22.3 million Americans will be over age 75. Our analysis of food spending patterns in 1997 found that at-home food accounted for 73 percent of the food expenditures by households with heads over age 75. Away-from-home food expenditures by households with heads over 75 were 30 percent lower than all U.S. households and 23 percent lower than households with heads age 65-74.

Households with heads between age 65 and 74 spent more on cereal and cereal products, dairy products, poultry, and processed vegetables than households with heads in other age groups. Households headed by the older elderly group spent more than households headed by any other age group on fresh and processed fruits and nonalcoholic beverages. Income had significant, positive effects on most elderly food expenditure categories. Region of residence, education, and marital status had the greatest impacts among the other socioeconomic factors on food expenditures by both elderly groups.

If tomorrow's elderly eat like their predecessors, we expect U.S. per capita food expenditures to stagnate as the population ages. While real total food expenditures (in 1997 dollars) will continue to grow with increasing population, real per capita expenditures are likely to stagnate because the elderly tend to eat lesser amounts of food than teens and younger adults and eat out less often.

To meet the needs of the increasing elderly population in the United States, food industry marketers and policymakers should pay close attention to the expenditure patterns of the elderly and the differential impacts of socioeconomic factors on food spending by the elderly. Public programs, product development, and marketing will need to adjust to accommodate the changing food spending patterns of the elderly population.

References

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