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# **Consumer Awareness and Use of Unit Pricing**

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Economics, Statistics, and Cooperatives Service**

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# CONSUMER AWARENESS AND USE OF UNIT PRICING

by

Charlene C. Price\*

## Introduction

Before the introduction of unit pricing, comparing prices among the numerous sizes and brands of food products was time consuming and sometimes impossible for consumers. Today, however, unit pricing makes price comparisons easier.

This study, based on 1976 survey data, explores how well the unit pricing system works among food shoppers by determining (1) awareness and use of unit pricing, (2) which products unit pricing is mainly used for, (3) if problems which shoppers originally had with unit pricing still exist, and (4) shoppers' opinions about the usefulness of unit pricing.

Unit pricing is the price per unit measure (quart, ounce, pound, etc.) of various products. Its use enables shoppers to compare prices between stated sizes and brands of products more easily. Unit prices for most grocery products are displayed beneath the items on small tags or on labels attached to the shelves. In the case of meat, poultry, and fish items, the label is placed directly on the package. Meat, poultry, and fish items have carried unit prices for years. Unit pricing for most other food and nonfood items is relatively new. Since its introduction in the late sixties, unit pricing has been voluntarily practiced by many grocery stores. Recently, however, eight States and six local jurisdictions have made unit pricing mandatory. <sup>1/</sup>

Findings from earlier studies have pointed to limited consumer awareness of unit pricing. <sup>2/</sup> Lack of consumer education and few materials explaining the system to consumers may have been major causes.

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<sup>1/</sup> These include Connecticut, Maryland, Massachusetts, New Jersey, New York, Oregon, Rhode Island, and Vermont.

<sup>2/</sup> Food Labeling, Goals, Shortcomings, and Proposed Changes. Report to the Congress by the Comptroller General of the United States, Jan. 1975.



## Methodology

This report of a 1976 unit pricing survey of food shoppers is part of a national study on consumers' behavior, attitudes, and motives relating to several food-related issues, including open date labeling, food prices, health problems, home gardening, and food safety. The overall study is being conducted by the Economics, Statistics, and Cooperatives Service, U.S. Department of Agriculture.

The procedure used for selecting a national probability sample of U.S. households for the survey was equivalent to dividing the United States into small geographic segments, each consisting of a cluster of about 20 housing units. A systematic random selection of 200 such clusters was made. Probability methods were used at each stage of sample selection.

Overall, 2,200 households were selected for the sample. About 10 percent of those selected were excluded because they were vacant units or did not contain an eligible respondent. Thus, 1,966 households were eligible for the survey. The person interviewed in each household was the one with primary responsibility for food shopping or food preparation. Questionnaires were completed by 1,417 or 72 percent of the eligible number of households (table 1). The completion rate was somewhat lower for the large metropolitan areas (66 percent) than for the other size communities (73 to 83 percent). The responses have been weighted to adjust for the relatively lower response rate in some areas.

Table 1--Questionnaires completed, by households, geographic region, and community size

Item	: Total eligible	: Interviews	: Interview not
	: households	: completed	: completed
	: ----- <u>Number</u> -----	<u>Percent</u>	<u>Number</u> <u>Percent</u>
Total households	: 1,966	1,417 72	549 28
Region:	:		
Northeast <u>1/</u>	: 525	354 67	171 33
North Central	: 552	406 74	146 26
South	: 549	424 77	125 23
West	: 340	233 68	107 32
Community size:	:		
Large metro	: 856	567 66	289 34
Small metro	: 733	537 73	196 27
Nonmetro and rural	: 377	313 83	64 17

1/ Includes Maryland and the city of Fairfax, Virginia.

Persistent efforts were made throughout the field phase of the study to find designated respondents at home and to urge cooperation from those who were reluctant to participate. Interviewers were instructed to make an original visit and up to three callbacks, if necessary, to obtain a complete questionnaire at each sample household. Callbacks were made at different times of the day and evening, and on different days of the week.

The "F test" was used to determine if differences among the group means discussed in the text were statistically significant. Where significant relationships exist, a single asterisk (\*) represents the 0.05 level of significance. 3/ A double asterisk (\*\*) represents the 0.01 level of significance.

### Who Is Aware of Unit Pricing?

Consumer awareness appears to be increasing slightly. Results of the 1976 survey reported here reveal that 72 percent of the respondents interviewed were aware of unit price labels. Twenty-one percent were not aware of unit price labels while 6 percent were unsure. Only 65 percent reported an awareness of unit pricing in a 1970 study. 4/

Shoppers between the ages of 35 and 44 years, well educated, and with relatively high annual incomes had a relatively high awareness of unit pricing (table 2). About 85 percent of the shoppers 35 to 44 years old claimed to have seen unit price labels, compared to only 59 percent in the senior citizen age group. Significantly fewer in the latter age group were aware of unit pricing than were those in the 64-year-and-under age categories. Shoppers with some high school training were significantly more aware of this pricing practice than those with less education. Significantly more college graduates than those who had not completed high school were aware of unit pricing.

As size and income of the households increased, so did awareness of the unit price. Households of three or more members were more likely to have seen unit price labels than smaller households. Households with at least \$15,000 annual income were significantly more aware of unit pricing than households with annual incomes below \$10,000.

Northeastern shoppers were more aware than those in other regions. Since unit pricing is not mandatory except where required by State or local regulations, it is possible that its availability is practically nil in some areas. Of the eight States requiring unit price labels, only Oregon is located outside the Northeast region. Awareness was significantly lower in rural communities than in either small or large metropolitan areas.

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3/ At the 0.05 level of significance, one can be reasonably sure (at least 95 times out of 100) that the differences in percentages or means among groups is a true difference and not due to chance or sampling error alone.

4/ T. David McCullough and Daniel I. Padberg. "Unit Pricing: Alternatives, Costs, and Consumer Reactions." Search Agriculture, Cornell Univ., Vol. 1, No. 6, Jan. 1971.

Table 2--Shoppers interviewed and their awareness of unit pricing, by demographic characteristics, 1976

Shopper characteristics	Total shoppers	Percentage aware of unit pricing	Percentage not aware of unit pricing
	<u>Number</u>	<u>Percent</u>	
Age:**			
Under 25	175	77	23
25-34	320	80	20
35-44	230	85	15
45-54	218	81	19
55-64	196	76	24
65 and over	173	59	41
Education:**			
No high school	176	62	38
Incomplete high school	214	74	26
High school	517	81	19
Incomplete college and vocational	246	79	21
College	164	84	16
Community size:**			
Large metro	572	82	18
Small metro	491	78	22
Nonmetro and rural	259	66	34
Household size:**			
1	176	69	31
2	414	72	28
3-4	459	82	18
5 or more	270	83	17
Household income:**			
Below \$5,000	192	66	34
\$5,000-\$9,999	258	75	25
\$10,000-\$14,999	265	78	22
\$15,000-\$24,999	266	84	16
\$25,000 and more	139	88	12
Region:**			
Northeast	334	95	5
North Central	380	71	29
South	383	70	30
West	225	75	25

\*\* Significant at the 0.01 probability level.

Earlier research indicated that shoppers used unit pricing only infrequently in grocery stores where it was available. <sup>5/</sup> This survey's findings indicate that although unit price usage is increasing, food shoppers still do not use it all of the time or for all food products purchased. Just 40 percent of the respondents who were aware of unit price labels said they always look for the unit prices, 44 percent said they sometimes do, and 16 percent said they never look for the unit price. Still, over three-fourths of aware respondents in each demographic group said they used unit pricing at least sometimes.

Age, education, and household size were the only significant variables associated with respondents' use of unit prices (table 3). Shoppers 35 to 44 years old used unit pricing more than shoppers in the 55-64 age group. Although awareness of unit pricing was lowest among those in the highest age group (table 2), a high percentage in that group who were aware of unit pricing claimed to use it. Shoppers with some college training were significantly more likely to use unit pricing than shoppers with less education. Among aware households, those with five or more members were more likely to use unit pricing than were one- or two-member households. Neither regions of the country nor household incomes were significantly related to use of unit prices.

#### Reasons Cited for Using or Not Using Unit Pricing

Shoppers indicating awareness and claiming that they sometimes or never use unit pricing were asked to give their reasons. Interviewers were instructed not to read or suggest any reasons to respondents. The reason mentioned by the largest proportion of shoppers for only sometimes using unit pricing was that they bought certain products regardless of the price (table 4). This explanation could be due to brand loyalty where people will buy a particular product because they have always bought that brand. They may think the less expensive product is inferior.

Disinterest was the main reason given by shoppers claiming never to use unit prices (table 4). Fairly large proportions of those under 25 years and from single person households were nonusers.

#### Products for Which the Unit Price Was Used

The items for which purchasers most often claimed to always look for the unit price were, generally, foods such as meat, poultry, sugar, coffee, frozen juices, and cereal (table 5). Variation in package size and location of the label--directly on the product package--might help account for the higher unit price usage on meat and poultry products.

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<sup>5/</sup> Ibid.



Table 3--Shopper use of unit pricing, by demographic characteristics, 1976

Shopper characteristics	: Respon- : dents : aware : of unit : pricing	: Percentage using unit pricing			: Percentage : not using : unit : pricing
		: Total	: Always	: Sometimes	
	: Number	----- Percent -----			
Age:*	:				
Under 25	: 135	82	38	44	18
25-34	: 255	86	34	52	14
35-44	: 193	90	44	45	10
45-54	: 176	80	40	40	20
55-64	: 149	78	43	35	22
65 and over	: 102	84	40	44	16
Education:*	:				
No high school	: 109	79	34	45	21
Incomplete high school	: 156	81	41	40	19
High school	: 418	81	36	45	19
Incomplete college and vocational	: 194	90	47	43	10
College	: 138	89	41	48	11
Community size:	:				
Large metro	: 469	80	36	44	20
Small metro	: 381	86	42	44	14
Nonmetro and rural	: 169	88	43	45	12
Household size:**	:				
1	: 121	76	33	43	24
2	: 298	81	41	40	19
3-4	: 376	84	38	46	16
5 or more	: 222	91	42	49	9
Household income:	:				
Below \$5,000	: 124	81	40	41	19
\$5,000-\$9,999	: 192	84	42	42	16
\$10,000-\$14,999	: 207	82	37	45	18
\$15,000-\$24,999	: 222	84	41	43	16
\$25,000 and more	: 122	90	35	55	10
Region:	:				
Northeast	: 318	79	34	45	21
North Central	: 270	86	42	44	14
South	: 266	85	40	45	15
West	: 166	86	44	42	14

\* Significant at the 0.05 probability level.

\*\* Significant at the 0.01 probability level.

Table 4--Reasons cited by "aware" shoppers for sometimes using and never using unit price information, 1976

Reason for sometimes using unit pricing	Shoppers who only sometimes use unit pricing		Reason for never using unit pricing		Shoppers who never use unit pricing	
	Percent	Number	Percent	Number	Percent	Number
I buy certain products regardless of the price	22	135	Not interested		40	90
I only use the unit price when comparing different sizes	20	125	I buy certain products re- gardless of the price		30	67
I only use the unit price when comparing different brands	15	93	I do not understand the unit price		6	14
I do not use the unit price when I am in a hurry	14	86	I do not have the time		4	10
I use the unit price only when purchasing a new product or some- thing I am not using regularly	12	74	I look at price of item, not unit price		4	9
I use the unit price only sometimes; because some products do not have the unit price	10	65	Unit price is confusing/ difficult to understand		4	9
Other reasons	8	---	Other reasons		12	--

Note: Percentages do not total because of multiple answers.

Table 5--Use of unit pricing for selected products, 1976

Products purchased	Total shoppers for each product	Percentage using unit pricing		
		Always	Sometimes	Never
	Number	-----Percent-----		
Bread and rolls	677	31	29	40
Canned fruits	649	37	38	25
Canned juices	556	38	33	29
Canned vegetables	633	38	35	28
Cereal	699	39	28	34
Coffee	670	41	24	35
Cottage cheese	569	32	29	40
Eggs	675	37	23	41
Flour	711	38	25	37
Frozen fruit	270	38	32	30
Frozen juices	568	40	30	30
Frozen vegetables	544	37	31	32
Jams and jellies	564	38	31	32
Meat	745	69	18	12
Milk	674	39	21	40
Poultry	734	61	21	19
Sugar	727	45	23	32

Canned food products such as fruits, vegetables, and juices were mentioned relatively often by their respective purchasers as items for which they sometimes looked for the unit price. Eggs, milk, cottage cheese, and bread and rolls were indicated by many purchasers of these items as products for which they never looked for the unit price.

Tables 6 through 18 (following text) show the relationships between consumer characteristics and use of unit prices for 13 of the 17 food items tested. However, the relationship between these characteristics and use of unit prices is generally different from the relationships found in tables 2, 3, and 20. This apparent conflict is explained by the fact that only those respondents who said they were aware of unit pricing and looked for it at least sometimes while shopping are included in tables 6-18. While older shoppers tended to be less aware of unit pricing, the older shoppers that were aware tended to use it just as frequently and in some cases more frequently than shoppers in younger age groups. Age, education, and income differences were consistently significant for most of the 13 products which follow.

Meat and poultry (tables 6 and 7). Region was the significant variable for shoppers looking for the unit price on meat, while household size was the significant variable for poultry. Shoppers living in the South were more apt to look for the unit price on meat than those residing in other regions. Larger households tended to look more frequently for the unit price on poultry than households with fewer members. In contrast, one-person households were more inclined than larger ones to never look.

Sugar (table 8). Use of unit prices on sugar was most prevalent in the West, with 59 percent of the purchasers there claiming to always use it. Northeasterners were least likely to use it for this product.

Coffee (table 9). A significantly higher percentage of middle-aged and older shoppers for coffee always looked for the unit price than did young shoppers who most frequently said they never looked.

Cereal (table 10). A high proportion of the younger shoppers never looked for cereal unit price labels while an equally high proportion of the older shoppers said they always looked for the label.

Canned fruits, juices, and vegetables (tables 11-13). Low per capita income household shoppers were more likely to always look for the unit price on canned fruit than higher per capita income household shoppers who tended to only sometimes look. Relatively more shoppers with less than a high school education tended to always look for the unit price on canned juices than did college-educated shoppers. Shoppers with a high school education were more apt to never look for the unit price on both juices and vegetables than those with lower or higher educations. Older shoppers were more likely to always look for the unit price on canned vegetables than were the younger homemakers shopping for this type of food item.

Cottage cheese and eggs (table 14-15). Shoppers 35 years and over were more likely to always look for the unit price on both cottage cheese and eggs than were younger shoppers. Though over half of the better educated shoppers looked for the unit price on eggs always or sometimes, a large percentage claimed to never look. Usage was just the opposite for less well-educated shoppers. While over half sometimes or never looked for the unit price on eggs, 47 percent always did so. Southerners and westerners who bought eggs were more likely to always look than were shoppers in other regions. Low per capita income households were also more inclined to always look for the unit price on eggs than were other income groups.

Milk (table 16). Although a large percentage of northeastern and western shoppers for milk said they never looked for the unit price on this item, a large proportion of those located in the North Central region and the South always looked. Older shoppers and those from low-income households tended to always look, while younger homemakers, those better educated, and those from higher income households tended to never look for the unit price on this product.



Bread and rolls (table 17). Older shoppers were more inclined than younger shoppers to always look for the unit price on bread and rolls. Nearly half of those purchasing bread and rolls in the North Central and Western regions never looked for the unit price, while nearly equal proportions in the Northeast and South always or sometimes looked.

Flour (table 18). Usage patterns varied mainly by region for shoppers who purchased flour. Shoppers in the Northeast were less inclined to always look for the unit price on this item than were shoppers in the West. Rural shoppers were more likely to always look than either large or small metropolitan area shoppers. Income levels also affected use of unit prices for flour. Shoppers from higher income households and from those with per capita incomes of \$4,000 and over were less apt to look for unit prices for flour than shoppers with lower incomes.

### Problems With Unit Pricing

A previous study mentioned many difficulties with unit pricing, such as size of print and missing or improper shelf labels. 6/ But, few shoppers interviewed in this survey encountered any of these types of problems. In fact, only 7 percent of the total number of shoppers who used unit pricing reported any problems at all. These complaints came mainly from better educated shoppers and those whose annual incomes were \$15,000 or more. Of the 121 respondents who encountered problems, 22 percent noted that the unit price was not on the shelf, 24 percent did not understand the unit price, 21 percent thought the unit price was hard to find, and 10 percent reported that the unit price was incorrect. Another 22 percent indicated a variety of other problems. A 1976 USDA study supports the view that satisfaction with price information has increased from 1974. 7/

### Relative Importance of Unit Pricing

Survey respondents were asked their opinion about the usefulness of nine different shopping aids available in most grocery stores. The shopping aids and results appear in table 19. An average usefulness score was computed for each aid by weighting answers given about it by individual respondents. 8/ All respondents whether aware or unaware of unit pricing are included in tables 19 and 20.

Although unit price usage is increasing, table 19 data indicate that it is the second least useful aid when compared with the others. Consumers evidently still believe price of the item on the food package is the most

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6/ Food Labeling, Goals...op. cit.

7/ Charles Handy and Christine Hager. "Changes in Consumer Satisfaction with Food Products and Services," National Food Situation, Econ. Res. Serv., U.S. Dept. Agr., March 1977.

8/ Respective answers and weights were: extremely useful, 1; very useful, 2; somewhat useful, 3; not too useful, 4; not at all useful, 5; don't know, 6; no answer, 7.

useful shopping aid. Virtually all of the respondents indicated that price on the package was extremely or very useful to them compared to only about half who felt this way about unit pricing. Open dates on food packages was the second most useful aid according to the respondents.

Usefulness of unit pricing was significantly related to a number of shopper characteristics as shown in table 20. Shoppers between 25 and 44 years of age found unit pricing more useful than other age groups. Unit pricing was least useful to elderly shoppers. Shoppers who had little formal education did not find unit pricing as useful as college graduates who were the most likely to feel that unit pricing was extremely useful.

Shoppers from large households and from those with children under 12 years old were more inclined than those from single person, childless ones to feel that unit pricing was quite useful to them.

Respondents whose household incomes were \$15,000 and above tended to find unit pricing more useful than those with lower household incomes.

People living in the South did not find unit pricing as useful as those residing in other parts of the country, particularly the North Central region. This regional difference reflects in part a relatively higher concentration of elderly and lower income people living in the South than in other regions.

Table 6--Meat: Shoppers and percentage using unit pricing, by demographic characteristics, 1976

Shopper characteristics	:	Total purchasers of meat	:	Percentage using unit pricing		
				Always	Sometimes	Never
	:	<u>Number</u>	:	<u>Percent</u>		
Age:	:					
Under 35	:	293		67.8	19.3	12.9
35-54	:	279		73.8	14.7	11.5
55 and over	:	179		63.4	25.6	11.0
Education:	:					
High school and less	:	202		69.9	21.9	8.2
High school graduate	:	303		69.1	18.4	12.5
Any college	:	251		68.6	17.3	14.0
Region:*	:					
Northeast	:	221		62.9	21.5	15.6
North Central	:	205		71.8	16.7	11.5
South	:	209		72.4	20.2	7.4
West	:	122		70.8	15.8	13.4
Community size:	:					
Large metro	:	340		70.4	16.1	13.5
Small metro	:	300		66.4	21.2	12.3
Nonmetro and rural	:	117		73.0	21.3	5.7
Household size:	:					
1	:	80		62.4	21.6	16.0
2	:	208		70.0	16.8	13.2
3-4	:	284		68.5	19.7	11.8
5 or more	:	183		72.0	19.2	8.8
Household income:	:					
Below \$5,000	:	92		68.6	20.9	10.5
\$5,000-\$9,999	:	147		66.8	22.1	11.1
\$10,000-\$14,999	:	149		72.3	16.5	11.2
\$15,000-\$24,999	:	160		69.6	15.6	14.7
\$25,000 and more	:	99		64.9	19.6	15.4
Per capita income:	:					
Below \$2,000	:	114		69.1	21.9	8.9
\$2,000-\$3,999	:	190		75.0	15.5	9.5
\$4,000-\$6,999	:	206		65.9	18.2	15.9
\$7,000 or more	:	137		64.0	21.0	15.1

\*Significant at the 0.05 probability level.

Table 7--Poultry: Shoppers and percentage using unit pricing, by demographic characteristics, 1976

Shopper characteristics	Total purchasers of poultry	Percentage using unit pricing		
		Always	Sometimes	Never
	Number	Percent		
Age:				
Under 35	285	60.4	20.4	19.2
35-54	275	64.3	19.3	16.5
55 and over	181	57.3	20.3	22.4
Education:				
High school and less	190	64.1	19.7	16.2
High school graduate	295	59.3	21.8	18.9
Any college	259	61.0	18.2	20.8
Region:				
Northeast	220	55.8	24.0	20.2
North Central	204	67.4	15.1	17.6
South	200	61.5	22.6	16.0
West	120	59.9	16.6	23.5
Community size:				
Large metro	338	60.4	19.8	19.8
Small metro	290	60.5	22.5	17.0
Nonmetro and rural	117	65.2	14.2	20.6
Household size**				
1	73	53.5	12.6	33.9
2	202	61.2	18.3	20.5
3-4	282	58.4	22.2	19.4
5 or more	185	67.8	21.6	10.7
Household income:				
Below \$5,000	83	59.9	26.4	13.7
\$5,000-\$9,999	140	62.9	14.2	23.0
\$10,000-\$14,999	144	65.2	19.7	15.2
\$15,000-\$24,999	169	61.6	16.5	21.9
\$25,000 and more	101	58.0	22.8	19.2
Per capita income:				
Below \$2,000	109	63.4	24.8	11.8
\$2,000-\$3,999	184	68.5	16.6	14.9
\$4,000-\$6,999	208	60.6	17.0	22.4
\$7,000 and more	136	53.6	20.7	25.7

\*\*Significant at the 0.01 probability level.

Table 8--Sugar: Shoppers and percentage using unit pricing, by demographic characteristics, 1976

Shopper characteristics	:	Total purchasers of sugar	Percentage using unit pricing		
			Always	Sometimes	Never
	:	Number	-----Percent-----		
Age:	:				
Under 25	:	286	40.8	23.6	35.7
35-54	:	271	46.1	23.6	30.3
55 and over	:	172	49.8	23.9	26.4
Education:	:				
High school and less	:	182	52.5	17.4	30.0
High school graduate	:	303	40.6	25.7	33.6
Any college	:	247	44.6	25.9	29.5
Region:**	:				
Northeast	:	220	38.0	27.0	35.0
North Central	:	200	41.7	24.9	33.4
South	:	195	47.2	21.4	31.5
West	:	119	58.8	19.3	21.9
Community size:**	:				
Large metro	:	328	39.1	26.5	34.4
Small metro	:	285	50.2	22.2	27.6
Nonmetro and rural	:	136	47.8	19.4	32.8
Household size:	:				
1	:	64	42.3	23.7	34.0
2	:	204	48.6	22.2	29.2
3-4	:	286	42.0	25.3	32.8
5 or more	:	179	45.8	23.0	31.1
Household income:	:				
Below \$5,000	:	84	57.8	16.6	25.6
\$5,000-\$9,999	:	140	46.8	21.4	31.7
\$10,000-\$14,999	:	138	44.4	19.9	35.6
\$15,000-\$24,999	:	169	45.2	24.4	30.4
\$25,000 and more	:	98	36.8	30.4	32.8
Per capita income:	:				
Below \$2,000	:	107	57.7	17.7	24.6
\$2,000-\$3,999	:	181	50.1	19.4	30.5
\$4,000-\$6,999	:	207	40.7	21.2	38.2
\$7,000 and more	:	133	38.2	33.4	28.4

\*\* Significant at the 0.01 probability level.

Table 9--Coffee: Shoppers and percentage using unit pricing, by demographic characteristics, 1976

Shopper characteristics	: Total : : purchasers : : of coffee :	Percentage using unit pricing		
		Always	Sometimes	Never
	: Number	-----Percent-----		
Age:**				
Under 25	: 246	32.5	26.3	41.2
35-54	: 257	44.3	23.9	31.8
55 and over	: 172	47.0	22.9	30.0
Education:				
High school and less:	: 178	45.7	25.3	29.0
High school graduate:	: 272	41.1	23.3	35.6
Any college	: 227	26.9	25.1	38.0
Region:				
Northeast	: 213	34.9	30.4	34.7
North Central	: 183	45.7	18.9	35.4
South	: 178	41.8	26.8	31.4
West	: 105	43.3	17.6	39.0
Community size:				
Large metro	: 305	37.4	24.2	38.4
Small metro	: 259	42.4	28.4	29.3
Nonmetro and rural	: 115	47.0	15.9	37.1
Household size:				
1	: 62	37.1	30.5	32.4
2	: 192	49.4	17.0	33.6
3-4	: 261	36.5	28.4	35.2
5 or more	: 163	39.1	24.5	36.4
Household income:				
Below \$5,000	: 74	48.5	24.3	27.2
\$5,000-\$9,999	: 122	44.0	21.6	34.4
\$10,000-\$14,999	: 130	40.3	21.6	38.1
\$15,000-\$24,999	: 157	42.7	22.9	34.4
\$25,000 and more	: 94	32.0	28.9	39.1
Per capita income:				
Below \$2,000	: 95	50.6	22.0	27.4
\$2,000-\$3,999	: 162	42.2	19.5	38.3
\$4,000-\$6,999	: 186	38.1	25.4	36.4
\$7,000 or more	: 134	38.6	26.6	34.8

\*\* Significant at the 0.01 probability level.



Table 10--Cereal: Shoppers and percentage using unit pricing, by demographic characteristics, 1976

Shopper characteristics	Total purchasers of cereal	Percentage using unit pricing		
		Always	Sometimes	Never
	Number	Percent		
Age:*				
Under 25	277	33.6	24.1	42.4
35-54	264	42.0	28.8	29.3
55 and over	164	42.2	31.8	26.1
Education:				
High school and less	174	44.3	25.2	30.5
High school graduate	294	36.2	28.9	34.8
Any college	239	37.7	27.7	34.7
Region:				
Northeast	224	35.7	29.4	34.9
North Central	192	37.7	24.1	38.1
South	177	39.8	31.7	28.5
West	115	43.8	23.8	32.4
Community size:				
Large metro	321	35.9	27.8	36.4
Small metro	272	40.5	30.0	29.5
Nonmetro and rural	116	41.7	21.7	36.5
Household:				
1	66	36.9	31.5	31.7
2	187	37.3	31.5	31.2
3-4	280	36.4	25.2	38.4
5 or more	175	44.4	26.2	29.5
Household income:				
Below \$5,000	80	40.7	32.3	27.0
\$5,000-\$9,999	132	42.8	25.7	31.5
\$10,000-\$14,999	135	36.2	30.6	33.2
\$15,000-\$24,999	167	40.0	17.3	42.7
\$25,000 and more	92	29.4	36.4	34.3
Per capita income:				
Below \$2,000	103	47.4	30.0	22.7
\$2,000-\$3,999	183	41.8	21.8	36.4
\$4,000-\$6,999	190	34.5	26.2	39.2
\$7,000 and more	130	31.4	33.0	35.6

\* Significant at the 0.05 probability level.

Table 11--Canned fruits: Shoppers and percentage using unit pricing, by demographic characteristics, 1976

Shopper characteristics	: Total pur- : chasers of : canned fruits:	Percentage using unit pricing		
		Always	Sometimes	Never
	: : <u>Number</u>	----- <u>Percent</u> -----		
Age:	:			
Under 35	: 245	33.8	38.7	27.5
35-54	: 248	34.5	39.8	25.7
55 and over	: 159	42.3	36.2	21.5
Education:	:			
High school and less:	: 160	42.2	30.3	27.6
High school graduate:	: 276	33.2	39.7	27.1
Any college	: 218	36.0	42.7	21.3
Region:	:			
Northeast	: 200	33.2	38.1	28.7
North Central	: 191	39.1	36.2	24.7
South	: 167	32.8	44.1	23.1
West	: 97	43.2	33.9	22.9
Community size:	:			
Large metro	: 301	33.9	40.0	26.1
Small metro	: 251	36.0	40.5	23.5
Nonmetro and rural	: 102	44.0	28.9	27.0
Household size:	:			
1	: 69	36.0	41.0	23.0
2	: 176	42.9	34.5	22.6
3-4	: 250	31.6	41.4	27.3
5 or more	: 159	36.2	37.9	25.9
Household income:	:			
Below \$5,000	: 70	52.9	32.3	14.8
\$5,000-\$9,999	: 120	41.8	32.0	26.2
\$10,000-\$14,999	: 127	34.2	41.3	24.5
\$15,000-\$24,999	: 152	34.7	36.3	29.0
\$25,000 and more	: 91	28.0	45.8	26.2
Per capita income:*	:			
Below \$2,000	: 88	50.7	36.0	13.3
\$2,000-\$3,999	: 165	42.5	30.2	27.3
\$4,000-\$6,999	: 176	35.0	36.5	28.5
\$7,000 and more	: 131	24.9	49.3	25.7

\* Significant at the 0.05 probability level.



Table 12--Canned juices: Shoppers and percentage using unit pricing, by demographic characteristics, 1976

Shopper characteristics	:	Total purchasers of canned juices:	Percentage using unit pricing		
			Always	Sometimes	Never
	:	Number	Percent		
Age:	:				
Under 35	:	226	33.8	33.3	33.0
35-54	:	206	38.5	32.1	29.4
55 and over	:	134	41.3	35.4	23.3
Education:**	:				
High school and less	:	144	47.0	26.6	26.4
High school graduate	:	235	31.9	33.3	34.8
Any college	:	188	37.0	38.7	24.2
Region:	:				
Northeast	:	173	37.9	30.9	31.1
North Central	:	157	40.4	30.7	28.9
South	:	147	30.1	41.1	38.8
West	:	91	42.3	29.7	27.9
Community size:	:				
Large metro	:	266	34.2	35.7	30.1
Small metro	:	217	39.1	34.0	27.0
Nonmetro and rural	:	86	42.5	24.1	33.4
Household size:	:				
1	:	62	35.4	35.0	29.6
2	:	157	37.2	38.6	24.1
3-4	:	220	34.4	32.1	33.5
5 or more	:	130	43.2	28.1	28.7
Household income:	:				
Below \$5,000	:	60	47.6	32.3	20.1
\$5,000-\$9,999	:	107	38.5	31.4	30.1
\$10,000-\$14,999	:	107	33.7	34.4	31.9
\$15,000-\$24,999	:	130	37.2	32.0	30.8
\$25,000 and more	:	72	29.9	42.6	27.5
Per capita income:	:				
Below \$2,000	:	79	51.1		17.3
\$2,000-\$3,999	:	134	37.7		33.4
\$4,000-\$6,999	:	150	32.8		34.3
\$7,000 and more	:	114	31.6		25.1

\*\* Significant at the 0.01 probability level.

Table 13--Canned vegetables: Shoppers and percentage using unit pricing, by demographic characteristics, 1976

Shopper characteristic	Total purchasers:		Percentage using unit pricing		
	of canned	vegetables	Always	Sometimes	Never
	Number		Percent		
Age:**					
Under 25	247		32.8	36.4	30.8
35-54	242		36.3	36.1	27.6
55 and over	151		47.1	33.0	19.9
Education:					
High school and less:	158		43.4	29.8	26.8
High school graduate:	272		34.2	35.0	30.7
Any college	212		38.3	39.9	21.8
Region:					
Northeast	199		35.7	38.7	25.6
North Central	183		40.7	29.6	29.7
South	164		33.3	41.5	25.2
West	99		43.5	28.4	28.0
Community size:					
Large metro	283		35.7	35.8	28.5
Small metro	267		39.1	35.6	25.3
Nonmetro and rural	94		39.9	32.6	27.5
Household size:					
1	65		39.9	38.3	21.7
2	175		40.3	34.0	25.7
3-4	245		33.1	38.3	28.6
5 or more	258		40.6	30.9	28.5
Household income:					
Below \$5,000	70		47.7	29.4	23.0
\$5,00-\$9,999	119		43.5	27.2	29.3
\$10,000-\$14,999	125		33.7	40.0	26.3
\$15,000-\$24,999	148		37.9	33.9	28.2
\$25,000 and more	87		29.3	43.7	27.0
Per capita income:					
Below \$2,000	92		49.4	32.6	17.9
\$2,000-\$3,999	160		40.5	26.3	33.1
\$4,000-\$6,999	175		34.1	37.3	28.6
\$7,000 and more	124		31.9	44.1	24.1

\*\* Significant at the 0.01 probability level.

Table 14--Cottage cheese: Shoppers and percentage using unit pricing, by demographic characteristics, 1976

Shopper characteristics	:	Total purchasers of cottage cheese:	Percentage using unit pricing		
			Always	Sometimes	Never
	:	Number	-----Percent-----		
Age:**	:				
Under 25	:	188	23.5	30.1	46.4
25-54	:	238	32.6	27.6	39.8
55 and over	:	151	40.3	27.6	32.1
Education:	:				
High school and less	:	129	36.1	28.3	35.7
High school graduate	:	240	34.1	27.6	38.3
Any college	:	212	26.8	29.2	44.0
Region:	:				
Northeast	:	180	28.2	32.9	38.9
North Central	:	170	32.6	26.4	41.0
South	:	117	31.3	34.7	34.0
West	:	109	37.4	17.3	45.3
Community size:	:				
Large metro	:	272	32.3	24.0	43.7
Small metro	:	229	30.1	35.5	34.4
Nonmetro and rural	:	82	34.9	23.7	41.4
Household size:	:				
1	:	58	34.6	31.6	33.8
2	:	163	35.8	23.6	40.6
3-4	:	222	30.4	29.2	40.4
5 or more	:	137	27.7	32.2	40.1
Household income:	:				
Below \$5,000	:	60	37.7	31.0	31.2
\$5,000-\$9,999	:	96	33.0	29.6	37.3
\$10,000-\$14,999	:	106	35.2	27.6	37.2
\$15,000-\$24,999	:	136	27.7	24.5	47.8
\$25,000 and more	:	93	25.7	31.8	42.5
Per capita income:	:				
Below \$2,000	:	75	37.8	32.9	29.3
\$2,000-\$3,999	:	122	33.2	26.6	40.2
\$4,000-\$6,999	:	172	30.4	26.5	43.1
\$7,000 and more	:	123	26.3	29.9	43.8

\*\* Significant at the 0.01 probability level.

Table 15--Eggs: Shoppers and percentage using unit pricing, by demographic characteristics, 1976

Shopper characteristics	:	Total purchasers of eggs	Percentage using unit pricing		
			Always	Sometimes	Never
	:	Number	-----Percent-----		
Age:**	:				
Under 35	:	278	30.9	21.0	48.1
35-54	:	247	41.4	21.1	37.5
55 and over	:	162	40.4	27.2	32.4
Education:*	:				
High school and less	:	175	46.7	20.3	33.0
High school graduate	:	278	33.5	24.1	42.4
Any college	:	236	34.5	22.4	43.1
Region:*	:				
Northeast	:	217	28.7	26.8	44.5
North Central	:	179	37.4	19.1	43.5
South	:	183	44.6	22.6	32.8
West	:	111	41.0	19.5	39.5
Community size:**	:				
Large metro	:	315	32.0	20.3	37.6
Small metro	:	275	41.4	26.9	31.7
Nonmetro and rural	:	99	41.7	17.2	41.1
Household size:	:				
1	:	70	40.4	21.8	37.8
2	:	190	40.2	18.4	41.4
3-4	:	263	30.0	26.4	43.5
5 or more	:	165	42.6	21.7	35.7
Household income:	:				
Below \$5,000	:	81	46.8	21.1	32.1
\$5,000-\$9,999	:	131	42.6	19.5	37.8
\$10,000-\$14,999	:	130	35.6	21.6	42.7
\$15,000-\$24,999	:	152	34.5	20.7	44.8
\$25,000 and more	:	98	40.0	23.1	47.0
Per capita income:	:				
Below \$2,000	:	102	48.8	20.7	30.5
\$2,000-\$3,999	:	170	42.6	18.0	39.4
\$4,000-\$6,999	:	187	30.7	21.8	47.5
\$7,000 and more	:	132	31.7	24.4	43.9

\* Significant at the 0.05 probability level.

\*\* Significant at the 0.01 probability level.

Table 16--Milk: Shoppers and percentage using unit pricing, by demographic characteristics, 1976

Shopper characteristics	: Total : : purchasers : : of milk :	Percentage using unit pricing		
		Always	Sometimes	Never
	: Number	-----Percent-----		
Age:**				
Under 35	: 271	34.8	20.2	44.9
35-54	: 252	40.4	20.4	39.3
55 and over	: 158	45.8	23.8	30.4
Education:*				
High school and less:	: 175	49.4	16.7	33.9
High school graduate:	: 284	37.4	20.5	42.1
Any college	: 232	34.3	25.1	40.6
Region:*				
Northeast	: 216	32.1	22.8	45.0
North Central	: 190	43.4	18.0	38.6
South	: 183	43.4	27.1	29.5
West	: 102	39.7	12.2	48.1
Community size:**				
Large metro	: 317	33.9	17.1	48.9
Small metro	: 274	42.8	25.9	31.3
Nonmetro and rural	: 100	47.0	20.1	32.9
Household size:				
1	: 72	34.5	22.0	43.5
2	: 193	46.1	20.4	33.5
3-4	: 269	36.0	21.5	42.6
5 or more	: 156	39.2	20.9	39.9
Household income:				
Below \$5,000	: 76	47.6	19.4	33.0
\$5,000-\$9,999	: 136	47.1	18.6	34.2
\$10,000-\$14,999	: 133	41.4	18.9	39.7
\$15,000-\$24,999	: 153	35.1	17.6	47.3
\$25,000 and more	: 95	32.9	30.5	36.6
Per capita income:				
Below \$2,000	: 98	52.9	18.0	29.1
\$2,000-\$3,999	: 169	41.3	17.9	40.8
\$4,000-\$6,999	: 190	35.6	22.4	42.0
\$7,000 and more	: 135	37.5	22.6	39.9

\* Significant at the 0.05 probability level.

\*\* Significant at the 0.01 probability level.

Table 17--Bread and rolls: Shoppers and percentage using unit pricing, by demographic characteristics, 1976

Shopper characteristics	:	Total pur- chasers of bread and roll	Percentage using unit pricing		
			Always	Sometimes	Never
	:	Number	Percent		
Age:*	:				
Under 35	:	272	27.7	27.3	45.0
35-54	:	248	32.1	32.5	35.4
55 and over	:	161	37.1	27.7	35.2
Education:	:				
High school and less:	:	183	37.3	25.8	36.9
High school graduate:	:	275	28.9	31.0	40.1
Any college	:	226	30.2	30.1	39.7
Region:*	:				
Northeast	:	226	35.4	33.7	30.9
North Central	:	180	28.4	22.9	48.8
South	:	184	30.7	32.5	36.9
West	:	95	29.9	25.6	44.5
Community size:	:				
Large metro	:	304	33.6	26.4	40.0
Small metro	:	272	29.2	34.7	36.1
Nonmetro and rural	:	108	31.6	24.5	43.9
Household size:	:				
1	:	69	28.2	36.5	35.4
2	:	191	27.8	29.3	42.9
3-4	:	264	31.9	28.1	40.0
5 or more	:	158	36.6	29.0	34.5
Household income:	:				
Below \$5,000	:	82	36.2	28.5	35.3
\$5,000-\$9,999	:	131	35.3	24.5	40.2
\$10,000-\$14,999	:	135	29.3	28.2	42.5
\$15,000-\$24,999	:	152	26.3	32.1	41.6
\$25,000 and more	:	89	29.0	32.3	38.7
Per capita income:	:				
Below \$2,000	:	102	39.4	29.1	31.5
\$2,000-\$3,999	:	166	35.7	21.4	43.0
\$4,000-\$6,999	:	194	29.2	28.7	42.1
\$7,000 and more	:	128	20.1	39.2	40.6

\* Significant at the 0.05 probability level.



Table 18--Flour: Shoppers and percentage using unit pricing, by demographic characteristics, 1976

Shopper characteristics	:	Total purchasers of flour	Percentage using unit pricing		
			Always	Sometimes	Never
	:	Number	-----Percent-----		
Age:	:				
Under 35	:	283	33.8	27.4	38.8
35-54	:	264	39.7	21.2	39.1
55 and over	:	164	41.6	26.8	31.6
Education:	:				
High school and less:	:	180	42.5	25.0	32.5
High school graduate:	:	287	36.2	25.0	38.8
Any college	:	248	36.9	25.0	38.0
Region:**	:				
Northeast	:	213	28.3	30.0	41.7
North Central	:	197	38.6	19.4	42.0
South	:	197	39.7	26.9	33.4
West	:	116	51.6	21.9	26.5
Community size:*	:				
Large metro	:	322	34.5	23.8	41.8
Small metro	:	275	39.1	28.8	32.1
Nonmetro and rural	:	120	44.7	19.3	36.0
Household size:	:				
1	:	59	38.8	25.2	36.0
2	:	199	41.0	22.8	36.2
3-4	:	282	31.6	26.9	41.5
4 or more	:	174	43.7	24.4	31.8
Household income:*	:				
Under \$5,000	:	80	49.2	22.1	28.7
\$5,000-\$9,999	:	134	44.3	23.0	32.7
\$10,000-\$14,999	:	137	33.8	26.3	39.9
\$15,000-\$24,999	:	162	36.8	23.2	40.0
\$25,000 and more	:	123	29.8	27.7	42.6
Per capita income:**	:				
Below \$2,000	:	104	51.0	24.6	24.4
\$2,000-\$3,999	:	178	44.0	19.7	36.3
\$4,000-\$6,999	:	200	32.7	26.3	41.0
\$7,000 and more	:	128	28.6	28.0	43.4

\* Significant at the 0.05 probability level.

\*\* Significant at the 0.01 probability level.

Table 19--Consumer ranking of shopping aids usefulness, 1976

Shopping aids	Usefulness							Do not know or no answer	Average score 1/ 5
	Extremely	Very	Somewhat	Seldom	Not at all	Not sure			
	-----Percent-----								
Price of food on the package	70.4	21.1	5.1	1.4	1.4	0.3	0.3		1.43
Dates on food packages	65.2	24.3	5.8	1.9	1.9	.5	.3		1.52
Uniform names and description of meat cuts in all store	36.0	34.9	13.3	7.9	5.9	1.7	.3		2.18
Ingredient infor- mation	32.5	32.1	20.0	9.4	5.4	.4	.1		2.24
Instructions on how to properly store	26.3	38.0	17.6	10.4	7.0	.6	.1		2.36
Name of manu- facturer	22.7	30.5	23.9	15.7	6.6	.4	.2		2.54
Nutrition infor- mation	22.8	31.3	23.6	12.6	8.4	1.2	.1		2.56
Unit pricing	24.4	28.5	18.2	12.7	11.0	4.7	.4		2.72
Drained weight of canned food	11.4	18.7	23.2	26.5	18.2	2.2	.1		3.29

1/ The lower the average score, the more useful the shopping aid.



Table 20--Shopper opinion on the usefulness of unit pricing, by demographic characteristics, 1976

Shopper characteristics	Total shoppers	Usefulness					Average score <u>1/</u>
		Extremely	Very	Some-what	Not too	Not at all	
	Number	Percent					
Age:**							
Under 25	182	25	33	22	10	9	2.42
25-34	330	32	30	16	11	10	2.34
35-44	239	28	32	21	12	6	2.33
45-54	216	20	33	18	12	11	2.46
55-64	195	20	31	17	16	16	2.77
65 and over	172	13	23	22	22	20	3.13
Education:**							
No high school	194	14	28	18	24	16	3.00
Incomplete high school	215	20	32	19	15	14	2.71
High school	515	26	30	20	12	12	2.54
Incomplete college and vocational	247	28	34	21	8	9	2.36
College	169	37	29	17	10	7	2.21
Children in household:*							
Under 6 years	348	31	35	17	10	8	2.32
6-12 years	77	33	31	14	13	9	2.34
12-17 years	250	26	30	24	12	8	2.46
None	667	21	28	19	16	15	2.73
Household size:**							
1	177	13	22	24	19	22	3.15
2	416	25	32	16	14	12	2.53
3-4	475	27	32	21	11	9	2.43
5 or more	274	30	32	18	12	8	2.36
Household income:**							
Below \$5,000	200	17	31	17	15	19	2.85
\$5,000-\$9,999	257	22	34	19	14	11	2.58
\$10,000-\$14,999	280	26	28	22	14	10	2.54
\$15,000-\$24,999	277	34	31	17	9	9	2.28
\$25,000 and more	128	29	35	17	12	7	2.33
Region:**							
Northeast	309	27	26	21	11	15	2.61
North Central	393	28	31	16	13	12	2.50
South	420	18	32	22	17	11	2.71
West	222	30	35	17	11	7	2.30

\* Significant at the 0.05 probability level.

\*\* Significant at the 0.01 probability level.

1/ The lower the average score, the higher the usefulness of unit pricing.



UNITED STATES DEPARTMENT OF AGRICULTURE  
WASHINGTON, D.C. 20250

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