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Dr. Harold Taylor

# CONSUMERS' PREFERENCES, USES, AND BUYING PRACTICES FOR SELECTED VEGETABLES

## A Nationwide Survey

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## ABSTRACT

Consumers' opinions affecting their purchase and use of selected vegetables are reported in this nationwide survey. Focus of the study are homemakers' reasons for serving and not serving selected vegetables, preferences of individual family members for selected vegetables, and positive and negative attributes that homemakers associate with various forms of vegetables. Homemakers' feelings about some aspects of labeling, product improvement, and proposed new vegetable products are also explored.

Keywords: Consumer research, vegetables.

## PREFACE

The information herein originated as one of a group of studies conducted by the Sample Survey Research Branch, Research Division, Statistical Reporting Service (SRS), U.S. Department of Agriculture (USDA), to determine consumer reactions to agricultural products. The project was designed to provide guidelines for education and information programs and product improvement research.

The study was planned under the general direction of Margaret Weidenhamer, SRS. Advice was provided in the planning stage by subject matter specialists in USDA and by representatives of vegetable associations. Crossley Surveys, Inc., under contract with USDA, designed the sample, developed the questionnaire, collected the data, and prepared a draft report. These phases of the study were supervised by Staats Abrams and Carol Finn, Crossley Surveys, Inc.

On April 29, 1973, the Market Research Section of the Sample Survey Research Branch was transferred to USDA's Economic Research Service (ERS). Hence, the final report was prepared under the auspices of Consumer Surveys, National Economic Analysis Division, ERS.

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## HIGHLIGHTS

The vegetables a homemaker serves depend largely on taste, not nutrition, according to a nationwide sample survey. A vegetable may be high in vitamins and minerals and easy to prepare, but unless the homemaker and other household members like its taste, it is not likely to appear very often on the family dinner table.

Corn and white potatoes were particularly liked by about three-quarters of the adult members of the sampled households and by about three-quarters of the younger members (ages 2-19). Tomatoes were well liked also by about 80 percent of the adults and by about two-thirds of the younger family members. Asparagus, Brussels sprouts, eggplant, and turnips were cited most often as being particularly disliked by the younger members of the household. Eggplant, okra, and turnips were viewed with similar disfavor by the adults surveyed.

The positive attributes that homemakers associated more with fresh vegetables than with either canned or frozen forms related to taste, vitamin and mineral content, appetizing appearance at mealtime, versatility in use, appealing color, availability in stores (when in season), good quality, and good texture. Ease of storage, ease of preparation, keeping well before cooking, a good value for the money, and low cost per serving were favorable attributes that homemakers associated more with canned vegetables than with either fresh or frozen vegetables. Lack of waste was the favorable attribute that was cited more often for frozen vegetables than for any other form.

Calories per serving and the date after which a product is not to be sold were items cited by a large number of respondents as being desirable, but not usually shown, on labels of canned and frozen vegetables.

Over three-quarters of the homemakers reported serving tomato juice and purchasing canned tomatoes (whole or stewed) in the 12-month period prior to interviewing. Most of them felt that the tomato juice presently on the market was "ideal" with respect to form, vitamin content, appearance, and calorie content. The reason for purchasing canned rather than fresh tomatoes (for slightly more than half the respondents who purchased this product) was convenience. Of those homemakers who did not report purchasing canned tomatoes, about half said they can or freeze their own



tomatoes. The majority of the homemakers who purchased canned tomatoes indicated there was nothing they disliked about the product.

Consumer reactions to eight new vegetable product concepts were explored. Only two items--tomato wedges and tomato powder--prompted more than 50 percent of the respondents to indicate a willingness to try them. Slightly less than half the homemakers said they would try quick-cooking frozen pinto beans, explosion-puffed potato slices, and frozen bean salad. Less interest was shown in explosion-puffed celery, explosion-puffed carrots, and instant bean dip powder.

**CONSUMERS'  
PREFERENCES, USES,  
AND BUYING PRACTICES  
FOR SELECTED  
VEGETABLES:  
A Nationwide Survey**

Jon Weimer

Patricia Stevens

**INTRODUCTION**

This study of consumers' opinions about selected vegetables was undertaken for use in planning programs of research, education, and information for the mutual benefit of the consumer and the vegetable sector of the economy.

Findings are based on personal interviews with 2,600 homemakers in August 1972. These homemakers were from a cross section of private households in both rural and urban areas in the United States, excluding Alaska and Hawaii. Respondents were selected entirely by area probability sampling procedures. The eligible respondent was defined as the household member who usually decides which foods are to be bought for the household's use. This definition permitted some male respondents to be included in the study. For reporting convenience, however, the terms "homemakers" and "consumers" are used to refer to all respondents. The words "household" and "family" are used interchangeably. A complete description of the sampling procedures is presented in the appendix.

In interpreting the results of this study, as in all surveys where a sample is interviewed rather than the total population, the findings are subject to error. Sampling reliability is also discussed in the appendix.

The data are subject also to errors in response and reporting. Some homemakers may have erred in reporting from memory on whether they had used certain vegetables and, if so, the frequency of use. And when a homemaker said she served a particular vegetable a certain number of times, she was describing what she considered to be her usual practice, even though factors such as price or availability may occasionally alter this habit. However, since this study was not intended to provide consumption figures but rather to gather data about attitudes and impressions homemakers have toward selected vegetables, the statements were accepted as given.

Summary tables appear throughout the text. Some percentages do not add to 100 percent, and some subcategories do not add up to the percentages for the entire category. This occurs because only highlights are presented in such tables. Multiple responses account for percentages on some tables adding to more than 100 percent and for subcategories adding to more than percentages shown for the entire category. All percentages are based on the total sample of 2,600 except as noted.

The discussion focuses on those results that appear to contribute most to an understanding of homemakers' opinions about selected vegetables. Data are discussed with reference to demographic characteristics when results indicate either large differences or slight differences where larger ones might have been expected. References in parentheses are to the numbered questions in the questionnaire and to the tabulations which summarize answers. Tabulations of the questions are in the appendix following the description of the sample. (Not all questions are shown in tabular form.)

#### PERCEIVED IMPORTANCE OF VEGETABLES VERSUS OTHER FOOD TYPES

To gauge consumers' perceived importance of vegetables relative to other food types in their family's daily diet, respondents were given a card showing a 7-point scale and were asked to rate each food type. The scale was marked 7 for "Very important" at one end and 1 for "Not at all important" at the other end, with numbers in between. As the following tabulation shows, it is apparent most consumers view vegetables, in general, as an important dietary component. Approximately 6 in 10 homemakers rated vegetables as very important. Among the other food types rated, only meat was rated by more respondents (approximately 8 in 10 homemakers) as being very important in their family's daily diet.

	<u>Food type</u>					
	<u>Bread</u>	<u>Meat</u>	<u>Potatoes</u>	<u>Vegetables</u>	<u>Salad</u>	<u>Dessert</u>
	----- <u>Percent</u> -----					

1-Not at all important	5	*	8	*	3	22
2-	5	*	9	1	3	17
3-	9	1	13	1	6	17
4-	16	2	21	5	11	18
5-	14	6	17	9	16	10
6-	10	12	11	20	20	6
7-Very important	41	78	21	64	41	9

\*Less than 1 percent.

(Question 1)

## PERCEPTION OF SPECIFIC VEGETABLES

### Frequency of Use

Homemakers were presented a card listing six statements that referred to how often they served vegetables. For each of 26 selected vegetables, respondents were asked to pick the statement that came closest to telling how often they served each vegetable in the 12 months immediately prior to interviewing.

### Frequency of Serving Statements

Haven't served in past 12 months  
Less than once a month  
About once a month  
2 to 3 times a month  
Once a week  
2 times a week or more

Tomatoes, lettuce (or escarole), green beans, white potatoes, corn, white onions, and green peas were the most frequently served vegetables. They were reported served at least 2 to 3 times a month by over 75 percent of the sample respondents. Of these frequently served vegetables, tomatoes, lettuce, white potatoes, and white onions were reported served 2 times a week or more by over 50 percent of the homemakers.

Celery, cucumbers, carrots, cabbage (or sauerkraut), and green peppers were reported served at least 2 to 3 times a month or more by approximately 5 to 7 homemakers in 10; however, only 3 in 10 homemakers said that they served these vegetables a minimum of 2 times a week.

Some vegetables were served either infrequently--about once a month or less--or not at all. Beets, spinach, lima beans, radishes, squash, asparagus, broccoli, and sweet potatoes were reported as either served infrequently or not at all in the 12 months prior to interviewing by 6 to 7 homemakers in 10. Cauliflower, Brussels sprouts, turnips, black-eyed peas, okra, and eggplant were reported either served infrequently or not at all by 8 to 9 homemakers in 10. In the case of eggplant, okra, and black-eyed peas, the predominant response of homemakers was that they had not served these particular vegetables at all during the 12-month period prior to interviewing.

(Question 2a)

### Reasons for Reported Frequency of Serving Vegetables

Questions were asked of homemakers to obtain their reasons for serving or not serving selected vegetables. A split-sample technique lightened the burden of the respondent so that even though a homemaker had indicated earlier how frequently she served

each of 26 vegetables, she indicated her reason(s) for serving or not serving only 13 of the 26. Each color-coded version of the questionnaire--blue and white--surveyed a different set of 13 vegetables.

White

Asparagus  
Broccoli  
Cabbage or sauerkraut  
Cauliflower  
Corn  
Eggplant  
Green beans (snap, string, pole)  
Green peas  
Lima beans  
Spinach  
Squash  
Tomatoes  
White onions

Blue

Beets  
Black-eyed peas  
Brussels sprouts  
Carrots  
Celery  
Cucumbers  
Green peppers  
Lettuce or escarole  
Okra  
Radishes  
Sweet potatoes  
Turnips  
White potatoes

For each vegetable that a homemaker was asked to indicate her reasons for reported frequency of serving, she was handed a card consisting of two columns of statements. One column listed possible reasons a homemaker had for serving a particular vegetable frequently; the other column, possible reasons she would have for serving a particular vegetable infrequently or not at all. Frequent serving was considered serving a vegetable 2 to 3 times a month or more, and infrequent serving was considered serving a vegetable less often than 2 to 3 times a month.

Each respondent was asked to relate those reasons, as were applicable, why she served a particular vegetable frequently, infrequently, or not at all. In every case, the homemakers were informed that the statements in both columns were to be interpreted as representing some or all household members' reactions.

Vegetables Served Frequently

For purposes of clarity and emphasis, the analysis of reasons given by homemakers for serving vegetables frequently is discussed only for those vegetables that more than one-half of the total sample of respondents said they served at least 2 to 3 times a month. Those vegetables are:

Cabbage  
Carrots  
Celery  
Corn  
Cucumbers  
Green beans

Green peas  
Green peppers  
Lettuce or escarole  
Tomatoes  
White onions  
White potatoes

For each of these 12 vegetables, the reason cited most often for frequent serving was "like taste." No less than 77 percent of the homemakers who were asked to give reasons for serving any of these 12 vegetables frequently reported that taste was an important factor. Although there was some variation among these 12 frequently served vegetables, other reasons cited for relative frequency of serving were "easy to prepare," "can be used in a number of different ways," "high in vitamins, minerals," and "don't get tired of it."

"Like color," "can buy desired amount," "available in desired form at local stores," "easy to digest," "like texture," and "low cost" were statements cited by less than 21 percent of the homemakers who were asked to give reasons for serving any of these 12 vegetables frequently. "Low in calories" was a reason cited for frequent serving of lettuce (or escarole) and celery by approximately 3 in 10 of those homemakers who were asked to give reasons for serving these two vegetables frequently; however, this factor was not cited for any of the other frequently served vegetables by more than 23 percent of the homemakers.

(Question 2b)

#### Vegetables Served Infrequently

Again, for purposes of clarity and emphasis, an analysis of the reasons given by homemakers for serving vegetables infrequently or not at all is discussed only for those vegetables which more than one-half of the total sample of respondents indicated they did not serve at least 2 to 3 times a month. Those vegetables are:

Asparagus	Lima beans
Beets	Okra
Black-eyed peas	Radishes
Broccoli	Spinach
Brussels sprouts	Squash
Cauliflower	Sweet potatoes
Eggplant	Turnips

For 12 of these 14 vegetables, the reason given most often by respondents who were asked why they served any of these vegetables infrequently was "dislike taste." With radishes, both "dislike taste" and "not easy to digest" were reasons reported equally often for not serving this vegetable more often (by approximately 3 in 10 homemakers). With asparagus, "high cost," rather than dislike of taste, was mentioned by more homemakers as the reason for not serving this vegetable more often (by approximately 4 in 10 homemakers).

For 8 of these 14 vegetables (beets, black-eyed peas, broccoli, Brussels sprouts, lima beans, spinach, squash, and turnips), "get tired of" was the reason, next to dislike of taste, that more

respondents gave for not serving these vegetables more frequently. High cost was second to dislike of taste for not serving cauliflower more often. With eggplant, "not easy to prepare" was next to dislike of taste for infrequent serving. "High in calories" was the second most cited reason by homemakers, next to dislike of taste, for not serving sweet potatoes more often. For okra, "not available in desired form at local stores" was the reason given most often, other than dislike of taste, for infrequent serving.

(Question 2c)

### Vegetables Not Served

An analysis of the reasons given by homemakers for not serving vegetables in the 12 months prior to interviewing is discussed only for those vegetables which more than one-half of the total sample of respondents indicated they did not serve at least 2 to 3 times a month. These vegetables, of course, are the same 14 vegetables discussed earlier when examining reasons for infrequent serving. Of those respondents who were asked to give reasons for not serving any of these vegetables, they indicated that "dislike taste" was the predominant reason for each of these 14 vegetables. For spinach and beets in particular, dislike of taste was a frequently given response by those homemakers who were asked to give their reasons for not serving any of these two vegetables (approximately 9 in 10 homemakers).

"No experience with product" was a relatively frequent response that, next to dislike of taste, was given by more homemakers for not serving black-eyed peas and okra. As might be expected, the respondents giving this reason for not serving these two vegetables were primarily from geographic regions outside the South (no tabulations shown). Difficulty in digesting was a relatively frequent reason, next to dislike of taste, given by those homemakers who were asked why they did not serve radishes.

Overall, taste was the most important determinant for serving selected vegetables frequently, infrequently, or for not serving them at all. It is apparent that homemakers do not serve vegetables which they or members of their families do not consider tasty.

(Question 2d)

### Form Usually Bought

Respondents were asked to specify in what form--fresh, frozen, canned, or dried--they generally bought selected vegetables in the 12-month period prior to interviewing. Seven of the original list of 26 selected vegetables were eliminated from consideration since they generally are not available in a form other than fresh. Some respondents indicated that they purchased two or more forms of a vegetable equally often.

The following tabulation shows percentages of respondents who bought each form of the vegetables listed. (The vertical lines show the highest percentages for each form.) The percentages refer only to those respondents who bought the vegetable at all. Thus, while 94 percent of those homemakers who had purchased eggplant purchased it in a fresh rather than a processed form, it must be noted that only about one-third of the total sample reported purchasing eggplant at all. (See appendix table.)

	<u>Fresh</u>	<u>Canned</u>	<u>Frozen</u>	<u>Dried</u>	<u>Cases</u>
	-----Percent-----				<u>Number</u>
White potatoes	94	1	2	5	2,506
Eggplant	94	*	2	*	848
Carrots	91	6	3	*	2,453
White onions	91	2	1	6	2,364
Turnips	91	3	5	*	1,201
Squash	86	2	12	*	1,672
Tomatoes	85	26	*	*	2,456
Cauliflower	67	1	33	*	1,649
Sweet potatoes	65	34	2	3	2,066
Beets	17	83	1	*	2,012
Green peas	11	61	31	1	2,455
Corn	35	53	18	1	2,484
Green beans	36	51	19	1	2,475
Asparagus	33	49	20	*	1,785
Spinach	25	45	20	*	1,898
Lima beans	9	38	38	17	1,824
Brussels sprouts	27	2	71	*	1,367
Broccoli	33	3	66	*	1,756
Black-eyed peas	15	36	14	38	913

\*Less than 1 percent.

Over 80 percent of those homemakers who had purchased white potatoes, eggplant, carrots, white onions, turnips, squash, or tomatoes in the 12-month period prior to interviewing reported generally purchasing fresh rather than processed forms of these vegetables. Cauliflower and sweet potatoes were purchased more often in fresh than in processed form by about two-thirds of those homemakers who reported buying these two vegetables.

Those vegetables which were reported purchased in canned form more frequently than in fresh, frozen, or dried form were beets, green peas, corn, green beans, asparagus, and spinach. In addition, sweet potatoes and tomatoes were reported bought in canned form by virtually all those homemakers who did not buy them in fresh form. Lima beans were reported purchased about equally often in both frozen and canned forms.



Brussels sprouts and broccoli were the only two vegetables listed which were generally bought frozen rather than in some other form. The majority of homemakers who did not buy these vegetables in frozen form had bought them fresh. Only black-eyed peas were reported purchased more frequently dried rather than in some other form (38 percent); however, almost a comparable number of homemakers reported buying black-eyed peas in canned form (36 percent).

(Question 6)

#### Appeal of Specific Vegetables to Other Family Members

Homemakers were asked to indicate which vegetables each member in their households (2 years of age and older) particularly liked or disliked. The data reflect the homemakers' opinions about what vegetables they believe members of their families liked or disliked. (Each individual member in a household was not asked to express his or her preference for these vegetables.) It must also be emphasized that the homemakers were instructed to respond only to those vegetables that they or members of their household liked or disliked. It is possible, of course, that a specific vegetable might not be particularly liked or disliked by any member of a household.

It appears that white potatoes and corn are particularly liked by about three-quarters of all age groups. These are the only two of the listed vegetables with such universal appeal. Lettuce and green beans are liked by about three-quarters of the adult members of the household and by about two-thirds of the younger members (ages 2-19). Tomatoes were particularly liked by about 80 percent of the adults and by about two-thirds of the younger members.

Of the 26 selected vegetables, 21 were particularly liked more often by adults in the family than by younger members. Carrots, celery, corn, cucumbers, and white potatoes were each particularly liked by about comparable percentages of adults and younger members of the family household. For the 26 vegetables, the preferences of the boys (2-19 years of age) did not differ appreciably from the preferences of girls of the same age.

Approximately 5 in 10 of the younger members of the household were reported to particularly dislike asparagus, Brussels sprouts, eggplant, and turnips. Cauliflower, broccoli, beets, squash, and okra were cited as the second most disliked vegetables by the younger members (approximately 4 in 10). Eggplant, okra, and turnips were disliked the most by adult members (approximately 4 in 10).

(Questions 3a and b)

## Use of Vegetables in Salads

Homemakers were asked to indicate which of the 26 selected vegetables, if any, they had used in salads in the 12 months prior to interviewing. Homemakers were also asked what other vegetables, in addition to those they already used, did they think could be used in salads.

As the following tabulation shows, the vegetables that were most frequently mentioned by homemakers as being used in salads were tomatoes and lettuce (by approximately 9 in 10 homemakers); celery (by approximately 8 in 10); cucumbers (by approximately 7 in 10); cabbage, carrots, green peppers, white onions, and radishes (by approximately 6 in 10).

	<u>Used in salads</u>	<u>Could be used in salads</u>
	<u>Percent</u>	
Asparagus	10	21
Beets	17	27
Broccoli	2	7
Brussels sprouts	1	4
Cabbage or sauerkraut	55	19
Carrots	64	18
Cauliflower	12	23
Celery	76	14
Corn	3	8
Cucumbers	73	15
Eggplant	1	4
Black-eyed peas	*	3
Green peas	13	21
Green peppers	56	21
Spinach	8	17
Lettuce or escarole	93	3
Lima beans	2	13
Okra	1	3
White onions	64	14
White potatoes	43	14
Green beans (snap, string, pole)	20	32
Radishes	58	22
Squash	2	2
Sweet potatoes	1	1
Tomatoes	92	4
Turnips	1	7

\*Less than 1 percent.

These frequently mentioned vegetables were used more often by homemakers who had a higher educational level and by those who came from family households possessing a higher income. With the exception of cauliflower, they were also used more often by homemakers in households with children.

Beets and green beans were cited most often (by approximately 3 in 10 homemakers) as vegetables that could be used in salads although these homemakers did not use them in salads themselves.

(Questions 4a and b)

### Use of Vegetables in New Recipes

Homemakers were asked to indicate which of the 26 vegetables they had used in new recipes in the 12 months prior to interviewing. They were also asked to indicate those vegetables for which they would be interested in having new recipes.

Less than half of the respondents (48 percent) said that they used any of these vegetables in a new recipe in the 12-month period. The vegetables used in new recipes by the largest proportion of homemakers were cabbage (or sauerkraut), green peppers, and tomatoes (14 percent each); white onions (13 percent); green beans (12 percent); and carrots, celery, and white potatoes (11 percent each).

Only 57 percent of the respondents indicated that there were any vegetables for which they would like to have new recipes. Those vegetables for which the largest proportion of respondents indicated a desire for new recipes were cabbage (or sauerkraut) and white potatoes (16 percent each), green beans (15 percent), and tomatoes and corn (14 percent each).

(Questions 8a and b)

## PERCEPTION OF DIFFERENT FORMS OF VEGETABLES

### Qualities Which Differentiate Among Forms

The survey attempted to uncover consumer opinions concerning the different forms in which vegetables come. Homemakers were asked to indicate their opinions by selecting from a list the descriptive phrases they associated with each of three forms of vegetables--fresh, canned, and frozen.

The basis of this aided-recall technique was a list of 14 descriptive phrases--stated both favorably and unfavorably--that might apply to these forms. Respondents were free to choose as many or as few as they wished. Failure to select a particular statement did not necessarily mean that respondents believed its

alternative, but rather that the statement was not prominent in their image of the form. For this analysis, the statements on the left are considered favorable and those on the right, unfavorable.

Tastes good	Does not taste good
Low cost per serving	High cost per serving
Sure of good quality	Not sure of good quality
Usually available in stores	Usually not available in stores
Easy to prepare	Not easy to prepare
High in vitamins and minerals	Low in vitamins and minerals
Easy to store	Not easy to store
Keeps well before cooking	Does not keep well before cooking
Good value for the money	Not a good value for the money
Not too much waste	Too much waste
Look appetizing at mealtime	Do not look appetizing at mealtime
Texture good	Texture not good
Appealing color	Color not appealing
Can use in many different ways	Cannot use in many different ways

As seen in the following tabulation, homemakers associated certain favorable characteristics with fresh vegetables more than they did with frozen or canned forms:

	<u>Fresh</u>	<u>Frozen</u>	<u>Canned</u>
	----- <u>Percent</u> -----		
Tastes good	90	51	41
High in vitamins and minerals	72	27	16
Look appetizing at mealtime	65	34	20
Can use in many different ways	60	32	44
Appealing color	57	32	16
Usually available in stores (when in season for fresh)	56	37	41
Sure of good quality	49	30	24
Texture good	46	25	19

The positive attributes associated with fresh vegetables relating to vitamin and mineral content, use in many different ways, availability in stores, and texture were cited more often by younger homemakers, those homemakers who had a higher educational level, those residing in households with higher incomes, and those homemakers who resided in households containing children.

Relative to the other forms of vegetables, the negative attributes that homemakers associated more with fresh vegetables than with the other forms were:

	<u>Fresh</u>	<u>Frozen</u>	<u>Canned</u>
	----- <u>Percent</u> -----		
Not easy to store	20	4	2
Does not keep well before cooking	17	3	1
Too much waste	17	5	6
Not easy to prepare	14	2	1

None of these negative attributes associated with fresh vegetables were cited by more than 20 percent of the respondents.

As seen in the following tabulation, ease of storage, ease of preparation, keeping well before cooking, a good value for the money, and low cost per serving were favorable attributes that homemakers associated more with canned vegetables than with either fresh or frozen vegetables.

	<u>Canned</u>	<u>Frozen</u>	<u>Fresh</u>
	----- <u>Percent</u> -----		
Easy to store	77	62	20
Easy to prepare	74	69	42
Keeps well before cooking	65	55	19
Good value for the money	41	27	39
Low cost per serving	37	14	18

Except for ease of storage, all of these positive attributes associated more with canned vegetables were cited more often by homemakers who had a higher education. Ease of preparation and keeping well before cooking were also mentioned most often by homemakers residing in higher income households and by homemakers in households containing children.

The negative attributes that consumers associated more with canned vegetables than with the other forms were:

	<u>Canned</u>	<u>Frozen</u>	<u>Fresh</u>
	----- <u>Percent</u> -----		
Not sure of good quality	21	15	6
Texture not good	19	8	1
Does not taste good	18	11	1
Color not appealing	16	6	1
Low in vitamins and minerals	15	6	1
Do not look appetizing at mealtime	12	4	1

Unsureness of quality was the negative attribute mentioned most frequently for canned vegetables (21 percent). All the other negative attributes associated more often with canned vegetables were cited by less than 20 percent of the homemakers.

"Not too much waste" was the only favorable attribute that was cited more often for frozen vegetables than for any other form of vegetable. Fifty-two percent of the homemakers cited this favorable attribute for frozen vegetables as opposed to 51 percent and 25 percent for canned and fresh forms, respectively. The phrases "easy to prepare," "tastes good," "keeps well before cooking," and "easy to store," however, were cited by at least 50 percent of the homemakers as being applicable to frozen vegetables. "High cost per serving" was the primary negative attribute that homemakers associated more with frozen vegetables (31 percent) than with either fresh (21 percent) or canned (8 percent) vegetables.

(Question 5)

#### PROBLEMS WITH SPECIFIC VEGETABLES AND FORMS

Thirty-two percent of the respondents reported that at some time within the 12-month period prior to interviewing they had bought fresh, frozen, or canned vegetables that were unsatisfactory. Fifty-seven percent of those who purchased vegetables that were unsatisfactory in some way encountered problems only once or twice within this 12-month period.

(Questions 7a and b)

A much larger proportion of those homemakers who bought unsatisfactory vegetables encountered problems with fresh vegetables rather than with frozen or canned forms. Of those who experienced problems with vegetables, 80 percent indicated problems with fresh vegetables, compared with 50 percent who found problems with canned varieties and 30 percent who experienced problems with frozen vegetables (tabulations not shown).

The primary problems encountered with fresh vegetables related to texture (for example, mushy, soft), being spoiled, and being tasteless. Tomatoes, lettuce, and potatoes were the fresh vegetables with which more homemakers had experienced problems. Problems encountered with canned vegetables related to taste (tasteless, "tinny taste"), texture (tough, hard), and the containers. Corn, green beans, and green peas were the canned vegetables with which more homemakers encountered problems. The complaints most often directed at purchased frozen vegetables were that they were tasteless, tough, hard, or too dry (no tabulations shown).

#### DESIRED LABELING FOR CANNED AND FROZEN VEGETABLES

Respondents were given a list of items which might be included on the labels of processed vegetables and were asked which items should be included on the label, which items they usually look for, and which items are not usually included.

	<u>Should be on label</u>	<u>Look for on label</u>	<u>Not usually shown on label</u>
	----- <u>Percent</u> -----		
Brand name	87	76	2
Cooking directions	68	27	18
Calories per serving	59	16	62
U.S. grades	67	28	31
Style --whole, sliced, diced, etc.	80	68	2
Net weight of contents	78	53	3
List of kinds and amounts of nutrients	52	15	49
Recipes or serving ideas	47	16	37
Ingredients	77	45	10
Date after which product is not to be sold	85	33	79

Of these items, "list of kinds and amounts of nutrients" and "recipes or serving ideas" were mentioned by the smallest number of respondents (52 and 47 percent, respectively) as items that they believe should be on labels of frozen and canned vegetables. "Brand name" and "date after which product is not to be sold" were cited by the largest number of respondents (87 and 85 percent, respectively) as items they believe should be on labels of processed vegetables.

The younger homemakers seemed more concerned that such items as cooking directions, calories per serving, U.S. grades, style, list of kinds and amounts of nutrients, ingredients, and date after which product is not to be sold should be included on the labels of canned and frozen vegetables. The same pattern of concern was evidenced by homemakers with a higher educational level, homemakers in households possessing a higher income, and homemakers with families including children.

Virtually all respondents (at least 97 percent) indicated that labels usually included brand name, style of vegetable, and an indication of net weight of contents of the vegetable. Ninety percent of the respondents reported that they believed the labels usually list the ingredients, and 82 percent of the homemakers indicated that cooking directions are usually included on the labels.

The calories per serving and the date after which a product is not to be sold were items cited by a large number of respondents as being desirable on labels, but not usually shown on labels of processed vegetables.

The items usually looked for on labels of canned and frozen vegetables were primarily those which respondents said were

already included--brand name, style of vegetable, net weight of contents, and ingredients.

(Questions 9a, b, and c)

## PERCEPTION OF PROCESSED TOMATO PRODUCTS

### Description of the Ideal Tomato Juice

The majority of respondents felt that the tomato juice product currently on the market was "ideal" with respect to form, vitamin content, appearance, and calorie content.

Over three-quarters of the respondents reported serving tomato juice in the 12-month period prior to interviewing. Homemakers serving tomato juice tended to be above 24 but below 65 years of age, and tended to be in households with a higher income level.

(Question 14a)

Each homemaker in the sample, regardless of whether she served tomato juice, was asked to select from sets of mutually exclusive characteristics those which best described the ideal tomato juice for her family. Major findings on four questions are described below. (See page 16 for summary table.)

### Form

In response to a question about the ideal form of tomato juice, a majority of the respondents (91 percent) said that tomato juice should be ready to serve. Tomato juice in either frozen concentrated or instant powder form to which water must be added generally did not appeal to the homemakers.

(Question 14b)

### Vitamin Content

Slightly more than half of the homemakers said that the ideal tomato juice for their family should contain the same amount of vitamins as the present product on the market; slightly less than half of the homemakers felt that the ideal tomato juice should contain an added amount of vitamins, enough to supply a day's vitamins needs in an 8-ounce glass.

(Question 14c)

### Appearance

A large majority of the homemakers (87 percent) thought that the present appearance of tomato juice was preferable to a tomato juice that would be red in color but clear, like cranberry juice.

(Question 14d)



## Calorie Content

Seventy-one percent of the homemakers thought that the ideal tomato juice for their family should contain the same amount of calories as the product currently on the market. Nineteen percent of the respondents thought that the ideal tomato juice should contain fewer calories than the product now on the market. A smaller proportion (8 percent) of the respondents thought the ideal tomato juice should contain more calories than does the product currently on the market.

(Question 14e)

### Summary of Questions 14b-e

	<u>U.S. total</u>
The ideal tomato juice for my family should--	<u>--Percent--</u>
Be in this form:	
Ready to serve -- no need to add water	91
Frozen concentrate -- just add water	5
Instant powder -- just add water	3
Contain:	
The same amount of vitamins contained in the product on the market now	52
An added amount of vitamins to supply a day's vitamin needs in an 8-ounce glass	45
Appear:	
Red in color, but <u>not</u> clear -- like the product on the market now	87
Red in color, but clear -- like cranberry juice	11
Contain:	
The same amount of calories contained in the product on the market now	71
Fewer calories than in the product on the market now	19
More calories than in the product on the market now	8

Responses to these questions did not differ appreciably between those homemakers who had served tomato juice and those homemakers who had not served tomato juice to their families in the 12-month period prior to interviewing.

### Perception of Canned Tomatoes

Seventy-seven percent of all homemakers sampled reported purchasing canned tomatoes (whole or stewed) in the 12-month period

prior to interviewing. Homemakers under 25 or over 64 years of age did not tend to purchase canned tomatoes as much as did homemakers who were between 25 and 64. Purchase of canned tomatoes was more characteristic of homemakers with higher family incomes and of homemakers with a higher educational level.

(Question 15a)

Of those homemakers who did not report purchasing canned tomatoes, almost half (47 percent) said the reason for nonpurchase was that they can or freeze their own tomatoes. Sixteen percent of those homemakers who had not purchased canned tomatoes stated that they preferred to use fresh tomatoes and 15 percent mentioned unfavorable taste aspects associated with canned tomatoes.

(Question 15b)

For 52 percent of those homemakers who reported purchasing canned tomatoes, the major reason stated for purchasing canned rather than fresh tomatoes related to convenience, with "easy to prepare" being the major convenience factor cited. Other reasons mentioned relatively frequently by respondents for buying canned tomatoes rather than fresh tomatoes were "use for specific dish or dishes" (39 percent) and "cheaper than fresh tomatoes" (31 percent).

(Question 15c)

When homemakers who had purchased canned tomatoes were asked what, if anything, they "didn't like so well" about canned tomatoes, the majority (68 percent) indicated that there was nothing they disliked about this product. The most frequent complaints that purchasers had about canned tomatoes were related to unfavorable taste (12 percent), waste material in cans (6 percent), and cans containing too much juice or water--not enough tomato (5 percent).

(Question 15d)

#### Frequency of Use

Canned tomatoes were served frequently by those homemakers who purchased them at all. Of those homemakers reporting having served canned tomatoes, only 10 percent said they served this product less than once a month; another 15 percent of the respondents reported serving canned tomatoes about once a month. The remainder of these homemakers reported serving canned tomatoes at least twice a month. Serving canned tomatoes at least 2-3 times a month was more characteristic of homemakers 25 years of age or older and of homemakers residing in households with five or more members.

(Question 16)

## Ways Used

Homemakers who reported purchasing canned tomatoes in the 12-month period prior to interviewing were asked what ways this product was used in their households. These homemakers were informed they could cite as many ways as they wished. About 7 in 10 of these homemakers said they used canned tomatoes in stews and soups. About 6 in 10 of these respondents reported using canned tomatoes in casseroles, sauces, and meat loaf. Use in side dishes was reported by approximately 5 in 10 homemakers, while use of canned tomatoes in salads and for snacks was reported by less than 2 in 10. Each of these different ways of using canned tomatoes was cited more often by those homemakers who served the product 2 times a week or more.

(Question 17a)

## Ways Used Most Often

Homemakers who purchased canned tomatoes were asked to specify what one way this product was used most often. Approximately 3 in 10 of these homemakers said they used canned tomatoes in sauces most often. Nineteen percent of these respondents reported using canned tomatoes most often for soups, 17 percent for stews, and 15 percent each for casseroles and as side dishes. Less than 5 percent of these homemakers stated using canned tomatoes most often for either meat loaf, salads, or snacks. Use of canned tomatoes for sauces most often was more characteristic of homemakers with some high school education or above, homemakers with an income of \$6,000 and above, and homemakers with children. Use of canned tomatoes in soups most often was more characteristic of homemakers with grammar school or less education as opposed to college-educated homemakers, and more characteristic of homemakers with less than \$6,000 income. Older homemakers (65-plus years) tended to use canned tomatoes more often in stews or as a side dish while homemakers less than 65 years of age were inclined to use this product more often in casseroles and sauces.

(Question 17b)

After indicating in what one way they had used canned tomatoes most often, homemakers were asked what products, if any, they had used in place of canned tomatoes for that dish. As seen in the following table, tomato sauce is used as a substitute for canned tomatoes more often than any other tomato product.

"Within the past 12 months which, if any, of the following products have you used in (MOST OFTEN WAY - Q. 17b) in place of canned tomatoes?"

	<u>Percent</u>
Tomato sauce	43
Tomato paste	31
Fresh tomatoes	26
Tomato soup	23
Tomato juice	22
Tomato puree	18
Instant sauce mix	3
Other products	1

(Question 17c)

### NEW PRODUCT CONCEPTS

This study explored consumer reactions to eight new product concepts. A split-sample technique lightened the burden on the respondents; that is, each respondent considered only four of the eight product concepts. Each color-coded version of the questionnaire--blue and white--surveyed a different set of four product concepts:

#### White

Quick-cooking frozen pinto beans  
Instant bean dip powder  
Frozen bean salad  
Explosion-puffed celery

#### Blue

Explosion-puffed potato slices  
Explosion-puffed carrots  
Tomato wedges  
Tomato powder

After reading a description of a new product, respondents were asked the following questions:

- a. If this product was available would you try it or not?
- b. Why doesn't this product appeal to you? (If "No" to Q.a)
- c. What is it about this product idea that appeals to you? (If "Yes" to Q.a)
- d. How sure are you that you would try it? (If "Yes" to Q.a)
- e. Assuming the product is satisfactory, do you think you would use it regularly or just once in a while? (If "Yes" to Q.a)

Two additional questions were asked with regard to the concept of instant bean dip powder:

- f. If it would not change the taste, would you prefer the bean powder be fortified with protein for nutritional purposes or not? (If "Yes" to Q.a)
- g. Would you prefer the bean powder to be seasoned or unseasoned? (If "Yes" to Q.a)

One additional question was asked with regard to the frozen bean salad concept:

- f. Would you prefer that salad dressing be included in the bean salad or not? (If "Yes" to Q.a)

The data reported simply represent homemakers' reactions to new product concepts. Since little or no attempt was made to inform the respondents how these products might be packaged or priced, it would be misleading to conclude that verbal expressions of interest reflect any firm intent to purchase these products. It must also be noted that some of these product concepts, identified in this report as being "new," may not have been completely foreign to some of the homemakers. For example, at the time of interviewing, tomato wedges had been introduced in some parts of the country, as had explosion-puffed products to a limited extent.

#### Relative Interest in New Product Concepts

As shown in the following tabulation, only two of the eight new product concepts--tomato wedges and tomato powder--prompted more than 50 percent of the respondents to state that they would be willing to try these products. A little less than half the homemakers indicated their receptiveness to quick-cooking frozen pinto beans, explosion-puffed potato slices, and frozen bean salad. Less interest was shown in explosion-puffed celery, explosion-puffed carrots, and instant bean dip powder.

"If this product was available would you try it or not?"

	<u>Would try</u>
	<u>Percent</u>
Tomato wedges	57
Tomato powder	51
Quick-cooking frozen pinto beans	49
Explosion-puffed potato slices	49
Frozen bean salad	43
Explosion-puffed celery	36
Explosion-puffed carrots	35
Instant bean dip powder	28

(Questions 10a, 11a, 12a, and 13a)

When respondents were asked how sure they were that they would buy these products and how often they would use them provided they were satisfactory, again the two tomato products appeared to be the more desirable new products to homemakers. The following table shows the responses to these questions:

	<u>Would Try</u>			<u>How Often</u>			
	<u>Abso- lutely</u>	<u>Quite sure</u>	<u>A little doubtful</u>	<u>No answer</u>	<u>Regularly</u>	<u>Once in a while</u>	<u>No answer</u>
----- <u>Percent</u> -----							
Frozen pinto beans	31	52	16	1	36	63	1
Instant bean dip powder	33	48	19	1	28	71	1
Frozen bean salad	34	50	14	2	27	71	2
Explosion- puffed potato slices	35	47	18	0	41	59	0
Explosion- puffed carrots	31	49	19	1	38	61	1
Explosion- puffed celery	31	51	16	1	40	59	1
Tomato wedges	46	44	8	2	53	44	3
Tomato powder	42	45	12	1	63	36	1

#### Quick-Cooking Frozen Pinto Beans

The description of quick-cooking frozen pinto beans presented to the respondent on a card read:

"Take 10-12 minutes to cook; can be used for preparing bean casseroles, bean salads; cost and nutritive value comparable to equal amount of canned beans."

Slightly less than half of the respondents said that if this product were available, they would try it. The concept appealed less to homemakers living in the Northeast than in any other region of the country.

(Question 10a)

The major reason given by homemakers for their interest in trying quick-cooking frozen pinto beans related to convenience (70 percent). "Quick to prepare" was the convenience factor cited most often. Other comparatively frequent reasons given by these homemakers who were willing to try this product were that it could be used for a specific dish or dishes (23 percent), that it would be nutritious (20 percent), that it would not be too expensive (18 percent), and that it would be a versatile product, capable of being used in many ways (16 percent).

(Question 10c)

Of those homemakers who stated they would not be willing to try the frozen pinto beans, lack of interest in trying this product stemmed primarily from the fact that these homemakers did not feel that they or their family members liked or used pinto beans (27 percent). Sixteen percent of the homemakers did not like or use beans in general, and 14 percent did not like or use frozen foods.

(Question 10b)

#### Instant Bean Dip Powder

"By adding various amounts of water, one can make bean dip, refried beans, and bean soup."

About 3 in 10 homemakers said they would try instant bean dip powder if it were available. The concept appealed more to homemakers in households with children. Homemakers from the Northeast region of the country were less inclined to try this product than were homemakers from other geographic regions. Of those respondents who said they would try this product, 85 percent indicated they would prefer that the bean dip powder be fortified with protein; two-thirds of these homemakers who said they would try this product said they would prefer that the bean powder be seasoned.

(Questions 11a, f, and g)

Approximately 6 in 10 of the homemakers who said they would try instant bean dip powder mentioned that convenience was the reason they would try it; specifically, "quick to prepare" and "easy to prepare" were the convenience factors cited most often. Another key attribute mentioned by those homemakers who said they would try the product was that the bean powder "could be used for specific dish or dishes" (44 percent).

(Question 11c)

About 4 in 10 of the homemakers who said they would not try instant bean dip powder mentioned that they did not use any of the derivatives of this product, i.e., bean dip, refried beans, and bean soup. One-fourth of these respondents said they did not like or use powdered foods and preferred other forms of food products. Concern about the taste of this product was cited by 19 percent of the homemakers who would not try instant bean dip powder.

(Question 11b)

### Frozen Bean Salad

"Ready-to-eat when thawed; contains 6 varieties of beans --red, garbanzo (chick), small white, kidney, green, and lima."

Approximately 4 in 10 homemakers said they would try frozen bean salad if it were available. The concept of frozen bean salad appealed somewhat more to the higher educated homemakers. About 6 in 10 of the homemakers who said they would try this product stated that they would prefer salad dressing not be included in the bean salad.

(Questions 12a, f)

The prime attribute of frozen bean salad, according to those respondents who said they would try it, was its convenience (56 percent); being "quick to prepare" and "easy to prepare" were cited as the main convenience factors. Approximately 3 in 10 of the homemakers liked or use the variety of beans described for the salad; about one-fourth of the respondents mentioned that they "like bean salad."

(Question 12c)

About 2 in 10 of those homemakers who said they would not try this product declared that they did not like so many different beans being mixed together. "Don't like or use particular beans mentioned" and "don't like bean salads" were reasons each cited by 16 percent of the homemakers for not wanting to try this product. Unacceptable taste was a factor mentioned by 14 percent of the respondents.

(Question 12b)

### Explosion-Puffed Products

For each of the three explosion-puffed products surveyed, a description of the explosion-puffed process preceded the description of the product itself. The description of the explosion-puffed process read:



"A means of imparting quick-cooking properties to dehydrated pieces of vegetables. By boiling in water 4-7 minutes, you have the cooked vegetable."

Explosion-Puffed Potato Slices--The description for the potato slices read:

"Pleasing, plump appearance; can be used as cooked potato pieces or for salad."

The concept of explosion-puffed potato slices appealed to almost half (49 percent) of the homemakers. There were no significant differences on this point among the various socioeconomic subgroups of the sample studied.

(Question 10a)

According to homemakers who said they would try explosion-puffed potato slices, convenience would be the prime reason for doing so (85 percent). Particularly, homemakers thought this product would be quick and easy to prepare.

(Question 10c)

About one-third of the respondents who said they would not try explosion-puffed potato slices said they "prefer using fresh vegetables--prefer fresh for cooking." About one-third of the homemakers indicated that they would not find the taste of this product acceptable. Other reasons mentioned with relative frequency for unwillingness to try this product were that homemakers did not think that the potato slices would be nutritious, nor did they like or use dehydrated forms of food (15 percent each).

(Question 10b)

Explosion-Puffed Carrots--The description for the carrots read:

"With addition of water, pieces resemble the original product in color, flavor, and texture."

About one-third of the homemakers said they would buy explosion-puffed carrots. No significant differences were noted among the various socioeconomic subgroups on this point.

(Question 11a)

Respondents who said they would try explosion-puffed carrots cited convenience as the product's major attribute (76 percent). "Quick to prepare" and "easy to prepare" were the convenience factors mentioned most often. "Like to try new products" and

"taste" were cited by 23 and 22 percent, respectively, of the homemakers who indicated they would try explosion-puffed carrots.

(Question 11c)

Unfavorable comments concerning taste, and preference in using fresh vegetables, were the predominant reasons given by those homemakers who would not try explosion-puffed carrots (about one-third of the homemakers for each of these reasons). Seventeen percent of the homemakers stated they "don't like or use dehydrated foods--prefer other form."

(Question 11b)

Explosion-Puffed Celery--The description for the celery read:

"With addition of water, pieces resemble the original product in color, flavor, and texture; in the dry state, they are crisp and could be used as a snack."

Almost 4 in 10 homemakers said they would try explosion-puffed celery if it were available. There were no significant differences on this point among the various socioeconomic subgroups of the sample studied.

(Question 13a)

Homemakers who said they would buy explosion-puffed celery attributed their interest primarily to convenience factors (66 percent). "Quick to prepare" and "easy to prepare" were the chief convenience factors mentioned. "Would be a good snack" was cited by 15 percent of the homemakers who said they would be willing to try this product.

(Question 13c)

The major objections raised by homemakers who said they would not be willing to try explosion-puffed celery were that they preferred to use fresh vegetables (30 percent), unacceptable taste (20 percent), and dislike or nonuse of dehydrated foods (17 percent).

(Question 13b)

Tomato Wedges

"Canned; easy to use for salads; taste similar to fresh tomatoes; cost about 30-35¢ for a pound can."

Fifty-seven percent of the homemakers said they would try tomato wedges if they were available. Significant differences among the various socioeconomic subgroups of the sample studied were not found with regard to willingness to try the product.

(Question 12a)

Approximately 4 in 10 of the homemakers who said they would try tomato wedges cited convenience as the reason. About one-third of the homemakers thought they would find the taste of tomato wedges acceptable. Other relatively frequent reasons given by homemakers who would try tomato wedges were: "available year-round in stores--could use when fresh not available" (24 percent); "would not be too expensive--would be cheaper" (23 percent); and "could be used in salads" (23 percent).

(Question 12c)

Preference for using fresh tomatoes in salads and unacceptable taste were each reasons given by approximately one-third of the homemakers who indicated they would not try tomato wedges. With regard to taste, respondents expressed specific concern that the wedges would not taste as good as fresh tomatoes.

(Question 12b)

### Tomato Powder

"Will dissolve in water to make tomato paste, tomato sauce, or tomato juice, depending upon amount of water used."

Slightly more than one-half (51 percent) of the homemakers stated they would be willing to try tomato powder. This product concept appealed to homemakers with some high school education or above, homemakers below the age of 65, homemakers with children, and homemakers residing in households with four or more family members. This product had less appeal to homemakers in the Northeast region of the country than elsewhere.

(Question 13a)

Convenience would be the prime attribute in trying tomato powder, according to homemakers who said they would try it (61 percent); ease of storage and ease of preparation were the most frequently cited convenience factors. About one-fifth of the respondents said that they thought tomato powder would be a versatile product and could be used in many ways.

(Question 13c)

Approximately one-fourth of the homemakers who said they would not buy tomato powder stated that they "don't like or use powdered foods--prefer other forms." Nineteen percent of the respondents who said they would not try tomato powder had reservations about the taste of this product, while 18 percent of the respondents simply saw "no need for this type of product--satisfied with existing product."

(Question 13b)

The inclusion of the three concepts based on the explosion-puffed process allowed, in part, a measure of the appeal of the process itself as well as the appeal of the specific vegetables. The higher appeal of the potato slices as opposed to the celery and carrots appears to indicate that the reaction to the process itself is not totally negative but may rather be perceived as appropriate or desirable for certain vegetables only. In addition, the concept of potatoes in an easy and quick-to-prepare form is not new.

## APPENDIX

### Sample Design

The 2,600 persons interviewed in this survey were a sample of homemakers living in private households in the United States, excluding Alaska and Hawaii. For this study, a homemaker was defined as the person with major responsibility for the decisions on purchasing food items for household use, and a private household was defined as one where cooking facilities were available. There was no qualification for eligibility with respect to use of vegetables.

### Sampling Method

The defined universe of households was sampled using a multistage stratified area probability design. At each stage, the probability of selection was made proportionate to population size. The method was such that each household had an equal and known probability of being selected into the sample. Thus, the sample was self-weighting for projecting to the universe within specific tolerance limits. The sampling frame was stratified by geographic area, population density, and intercensal growth rate.

The sample for this study was drawn from the contractor's master frame of households which was developed along the following lines. All counties in the conterminous States were subdivided into nine census divisions. The counties were then grouped into those that fell into Standard Metropolitan Statistical Areas (SMSA's) and those that did not. Counties in SMSA's were stratified into five population size strata ranging from over 1 million to less than 100,000 population. Nonmetropolitan counties were divided into four groups according to their level of urbanization. They ranged from those that were 50 percent or more urbanized down to counties with no urbanized place. Nonmetropolitan counties were further subdivided into several groupings reflecting the estimated rate of intercensal growth.

With probability proportionate to size, 80 primary sampling units (PSU's--counties or groups of contiguous counties) were selected from the frame formed by the stratification described above. These units contained 180 counties.

The second stage consisted of selecting a sample of several hundred minor civil divisions (MCD's) within the 80 PSU's. These

MCD's fell into two groups: Those in Bureau of the Census Block Statistics areas, and all others. From MCD's in the Block Statistics areas, individual blocks or groups of blocks were selected with probability proportionate to size. In MCD's not covered by Block Statistics, enumeration districts were selected also with probability proportionate to size. To obtain sample segments (blocks and enumeration districts) of approximately equal size, small blocks were combined, as were small enumeration districts; large ones were systematically subdivided.

For this survey 620 sample segments were selected. Within each sample segment six households (a sample cluster) were predesignated, providing 3,720 sample listing units (SLU's). Then systematic random procedures were used to designate every nth household as those in which interviews were to be taken. No deviation from specified procedures was permitted.

A differential callback procedure was used wherein a minimum of four attempts were made on all SLU's located in SMSA's and all other urban areas as defined for census purposes, and at least three attempts were made in those rural areas not included in the SMSA's. No substitutions were permitted for sample households that did not yield interviews. These efforts resulted in an overall completion rate of 75 percent.

The table below shows the completion rates which are based on the 3,720 SLU's assigned to the field, less unoccupied dwellings:

	<u>Total</u>		<u>SMSA's 1,000,000 and over</u>		<u>Other SMSA's</u>		<u>Nonmetro- politan area</u>	
	<u>No.</u>	<u>Pct.</u>	<u>No.</u>	<u>Pct.</u>	<u>No.</u>	<u>Pct.</u>	<u>No.</u>	<u>Pct.</u>
<u>Total assigned SLU's</u>	<u>3,720</u>		<u>1,440</u>		<u>1,278</u>		<u>1,002</u>	
Unoccupied dwellings	249		76		94		79	
<u>Total occupied SLU's</u>	<u>3,471</u>	<u>100</u>	<u>1,364</u>	<u>100</u>	<u>1,184</u>	<u>100</u>	<u>923</u>	<u>100</u>
Completed interviews	2,600	75	981	72	886	75	733	79
Not interviewed	871	25	383	28	298	25	190	21

## Sampling Reliability

The extent to which sample results may differ from true figures for the population depends on a number of factors. Chief among these are the size of the sample and the size of the reported survey percentages. The size of sampling fluctuations is also affected by the way in which PSU's are defined and selected and how widely scattered the sample is. The possible magnitudes of these chance sampling fluctuations are estimated on an approximate basis in the table below:

	<u>Approximate confidence limits</u> <sup>1/</sup>					
	<u>Total sample</u>	<u>Size of subgroup sample</u>				
For percentages around:	<u>2,600</u>	<u>1,000</u>	<u>800</u>	<u>600</u>	<u>400</u>	<u>200</u>
	----- <u>Percent</u> -----					
50	2.71	4.37	4.90	5.64	6.92	9.80
40-60	2.67	4.29	4.78	5.53	6.78	9.58
30-70	2.50	4.00	4.49	5.17	6.35	8.98
20-80	2.17	3.49	3.92	4.51	5.53	7.84
10-90	1.63	2.63	3.94	3.43	4.16	5.88

1/ 2 standard errors.

The chances are approximately 95 in 100 that the survey result does not vary, plus or minus, by more than the indicated amount from the result that would have been obtained had the same procedures been used to interview all homemakers in the population. For example, 52 percent of all homemakers in the survey said that they thought a list of kinds and amounts of nutrients should be on the labels of canned and frozen vegetables. The chances are 95 in 100 that, had all homemakers in the population been interviewed, the true percentage of those saying that a list of kinds and amounts of nutrients should be on labels of processed vegetables would be between 49.3 and 54.7 percent. The possible variation is larger for a corresponding portion than for the total sample because the number of interviews is smaller.

This survey had a nonresponse rate of 25 percent. To the extent that the nonresponse group differs from those responding, the confidence limits as set forth in this section are understated. The confidence levels are correct and valid if the assumption is made that there is no measurable difference between respondents and nonrespondents.

## Rotation and Split Sample Techniques

Two color-coded versions of the questionnaire were used--white and blue. The versions were the same with the following exceptions: As mentioned earlier, vegetables for which homemakers gave reasons for serving/not serving were alternated between the two versions; also, each version of the questionnaire differed with respect to the order of characteristics on question 5 and each version surveyed a different set of new product concepts in questions 10-13.

Equal numbers of both versions were assigned to each sample cluster of six predesignated addresses, thereby creating two subsamples of approximately equal size and, presumably, similar socioeconomic characteristics. There was no deliberate attempt to match subsamples in terms of age, income, or any other socioeconomic characteristics of the respondents. However, subsequent analysis indicates that the two subsamples were quite similar with respect to the background characteristics examined.

## Explanation of Tables

Tables are presented in the order of questioning, except in a few instances where similar questions have been grouped for ready comparison. Generally, the wording used in the ordered question, probes excluded, is given as the table heading. Tables are identified by the numbers of the questions on which they are based.



Question 1: "We would like to know how important you think certain types of food are in your family's daily diet. Here is a card marked 7 for 'Very Important' at one end and 1 for 'Not at All Important' at the other end with numbers in between. Just pick a number that comes closest to how you feel about each of the types of food I mention. Now, how do you feel about the importance of (food type) in your family's daily diet?"

Rating	U.S. total					
	Bread	Meat	Potatoes	Vegetables	Salad	Dessert
	----- Percent -----					
1- Not at all important	5	*	8	*	3	22
2-	5	*	9	1	3	17
3-	9	1	13	1	6	17
4-	16	2	21	5	11	18
5-	14	6	17	9	16	10
6-	10	12	11	20	20	6
7- Very important	41	78	21	64	41	9
	----- Number -----					
Mean	5.24	6.62	4.45	6.37	5.58	3.33
Cases	2,600	2,600	2,600	2,600	2,600	2,600

\* Less than 1 percent.

Question 2a: "Which of the statements . . . come closest to telling how often you served (vegetable) in the past 12 months?"

Vegetable	U.S. total						
	2 times a week or more	Once a week	2 to 3 times a month	About once a month	Less than once a month	Haven't served past 12 months	Cases
	----- Percent -----						Number
Asparagus	3	8	12	17	27	33	2,600
Beets	6	10	17	18	27	22	2,600
Broccoli	4	11	17	16	18	33	2,600
Brussels sprouts	1	3	10	14	23	49	2,600
Cabbage or sauerkraut	10	18	23	23	17	9	2,600
Carrots	24	28	22	12	7	6	2,600
Cauliflower	2	7	12	17	22	40	2,600
Celery	35	18	15	12	10	9	2,600
Corn	34	32	18	8	5	3	2,600
Cucumbers	30	17	15	11	12	14	2,600
Eggplant	1	3	4	8	16	67	2,600
Black-eyed peas	5	7	7	7	11	63	2,600
Green peas	22	33	22	12	6	4	2,600
Green peppers	20	17	16	15	14	18	2,600
Spinach	7	15	17	16	16	28	2,600
Lettuce or escarole	71	15	6	2	2	3	2,600
Lima beans	5	13	16	17	20	29	2,600
Okra	5	6	7	7	8	67	2,600
White onions	52	19	8	5	6	10	2,600
White potatoes	62	17	8	5	5	3	2,600
Green beans (snap, string, pole)	37	35	16	6	3	2	2,600
Radishes	14	11	12	13	18	31	2,600
Squash	6	13	16	15	17	32	2,600
Sweet potatoes	4	7	14	19	35	20	2,600
Tomatoes	74	14	6	2	2	2	2,600
Turnips	3	5	8	9	22	52	2,600

Summary of question 2b: Reasons given by respondents who indicated they served selected vegetables frequently in the 12 months prior to interviewing. Vegetables listed in table were those selected by more than one-half of the respondents in question 2a as being served at least 2 to 3 times a month.<sup>1/</sup>

Reasons	U.S. total											
	Vegetables served frequently											
	Tomatoes	Lettuce or escarole	Green beans (snap, string, pole)	White potatoes	Corn	White onions	Green peas	Carrots	Celery	Cucumbers	Green peppers	Cabbage or sauerkraut
	----- Percent -----											
Like taste	90	81	87	82	90	82	85	78	77	86	81	84
Easy to prepare	45	45	40	42	44	27	47	30	32	38	30	33
Can be used in a number of different ways	43	29	21	50	19	55	17	26	39	20	47	30
Don't get tired of it	41	37	34	38	38	30	30	26	26	27	20	26
High in vitamins, minerals	33	31	33	18	13	8	20	45	25	14	17	21
Low in calories	23	31	18	3	2	8	4	16	28	23	12	18
Like color	20	10	11	2	10	3	12	14	4	5	15	4
Can buy desired amount	16	9	12	14	14	16	11	10	7	9	9	7
Available in desired form at local stores	15	11	16	15	14	14	14	12	11	9	8	10
Easy to digest	12	9	13	14	4	3	12	10	6	4	3	5
Like texture	10	10	9	7	7	5	6	6	11	7	7	4
Low cost	9	8	16	14	16	15	15	18	8	9	5	21
	----- Number -----											
Cases	1,247	1,184	1,184	1,125	1,108	1,061	1,056	945	862	786	703	684
Average responses per case	3.55	3.09	3.10	2.99	2.71	2.66	2.73	2.91	2.74	2.51	2.54	2.63

<sup>1/</sup> For question 2b, the 26 vegetables listed in question 2a were equally divided between two versions of the questionnaire, each version given to a split sample of the total number of respondents in the survey.

Summary of question 2c: Reasons given by respondents who indicated they served selected vegetables infrequently in the 12 months prior to interviewing. Vegetables listed in table were those not selected by more than one-half of the respondents in question 2a as being served at least 2 to 3 times a month.1/

Reasons	U.S. total													
	Vegetables served infrequently													
	Spinach	Radishes	Squash	Lima beans	Beets	Broccoli	Sweet potatoes	Asparagus	Cauliflower	Black-eyed peas	Okra	Turnips	Brussels sprouts	Eggplant
Dislike taste	48	33	39	37	40	45	25	34	36	33	29	41	44	27
Get tired of it	25	14	22	30	29	24	18	10	19	28	16	20	19	19
Cannot be used in a number of different ways	11	14	8	9	14	9	11	5	8	12	13	13	9	10
Not in habit of eating	8	5	6	5	10	8	6	5	6	8	8	4	7	4
Not available in desired form at local stores	7	10	21	3	5	7	11	12	8	5	26	15	8	20
Dislike texture	7	3	6	6	3	2	3	4	3	5	11	4	4	2
Not easy to prepare	4	3	11	4	4	4	7	2	6	11	12	7	4	25
High cost	3	7	8	4	3	12	11	44	24	1	11	3	15	12
Cannot buy desired amount	3	4	4	2	1	4	2	3	5	2	4	4	3	6
Not easy to digest	2	33	2	14	1	6	6	2	9	8	3	11	10	3
Dislike color	2	1	2	1	2	1	1	1	2	2	3	1	2	*
High in calories	1	*	3	17	3	1	22	1	1	9	2	2	1	2
Low in vitamins, minerals	1	3	2	1	2	*	1	1	1	1	1	1	1	1
Cases	415	408	436	486	570	478	691	587	505	232	196	411	464	318
Average responses per case	1.25	1.33	1.56	1.36	1.22	1.26	1.29	1.27	1.32	1.30	1.45	1.31	1.31	1.34

\* Less than 1 percent.

1/ For question 2c, the 26 vegetables listed in question 2a were equally divided between two versions of the questionnaire, each version given to a split sample of the total number of respondents in the survey.

Summary of question 2d: Reasons given by respondents who indicated they did not serve selected vegetables in the 12 months prior to interviewing. Vegetables listed in table were those not selected by more than one-half of the respondents in question 2a as being served at least 2 to 3 times a month. 1/

Reasons	U.S. total													
	Vegetables not served													
	Spinach	Radishes	Squash	Lima beans	Beets	Broccoli	Sweet potatoes	Asparagus	Cauliflower	Black-eyed peas	Okra	Turnips	Brussels sprouts	Eggplant
Percent														
Dislike taste	86	59	81	70	86	74	63	74	72	52	57	77	75	68
Dislike texture	11	4	8	8	6	5	5	5	7	4	8	5	4	6
Get tired of it	4	3	5	5	4	3	6	2	3	2	2	5	2	2
No experience with product	3	1	5	4	1	10	6	5	5	32	29	6	7	15
Cannot be used in a number of different ways	3	3	4	3	4	2	2	2	2	1	3	3	4	3
Not easy to prepare	3	1	8	3	4	3	6	3	5	3	4	5	2	10
Dislike color	3	*	1	1	3	1	1	2	2	2	1	1	1	3
High cost	1	1	2	2	1	6	4	21	6	*	1	1	7	3
Low in vitamins, minerals	1	1	*	1	0	*	*	1	1	*	*	*	0	*
Not in habit of eating	1	1	1	2	2	1	2	1	2	1	1	2	2	2
Not easy to digest	1	41	1	17	1	8	7	3	10	3	1	7	8	2
Cannot buy desired amount	1	0	1	1	1	1	1	2	2	*	*	*	1	2
High in calories	*	1	1	8	1	*	11	*	*	2	*	1	*	1
Not available in desired form at local stores	*	1	3	1	1	2	2	3	2	4	5	3	2	4
Cases	352	387	416	377	295	416	256	425	521	806	848	658	632	890
Average responses per case	1.21	1.22	1.24	1.28	1.17	1.18	1.24	1.24	1.22	1.09	1.15	1.21	1.19	1.22
											Number			

\* Less than 1 percent.

1/ For question 2d, the 26 vegetables listed in question 2a were equally divided between two versions of the questionnaire, each version given to a split sample of the total number of respondents in the survey.

Question 3a: "Which, if any, of the vegetables listed . . . does (member) particularly like?"

Vegetable	All homemakers				
	U.S. total	Age			
		Under 25	25-44	45-64	65 and over
	----- <u>Percent</u> -----				
Asparagus	56	40	53	64	57
Beets	54	38	50	60	64
Broccoli	48	38	52	51	42
Brussels sprouts	37	24	40	40	32
Cabbage or sauerkraut	67	64	68	68	66
Carrots	66	61	66	68	68
Cauliflower	48	34	50	50	44
Celery	62	55	61	66	59
Corn	79	88	81	76	75
Cucumbers	62	64	67	62	49
Eggplant	29	19	27	35	30
Black-eyed peas	28	25	26	30	28
Green peas	69	65	67	71	72
Green peppers	55	54	57	58	45
Spinach	50	45	50	53	47
Lettuce or escarole	76	77	78	77	69
Lima beans	50	40	48	55	53
Okra	27	19	26	30	27
White onions	62	62	63	61	64
White potatoes	73	76	74	71	73
Green beans (snap, string, pole)	77	77	75	79	77
Radishes	43	40	45	44	36
Squash	50	36	46	55	59
Sweet potatoes	57	45	55	62	60
Tomatoes	84	85	84	86	82
Turnips	36	21	32	40	45
	----- <u>Number</u> -----				
Cases	2,600	252	1,004	899	425

Question 3a: "Which, if any, of the vegetables listed . . . does (member) particularly like?"

Vegetable	All adult males (excluding homemakers)				
	U.S. total	Age			
		20-24	25-44	45-64	65 and over
	----- <u>Percent</u> -----				
Asparagus	41	29	39	46	45
Beets	42	29	38	44	60
Broccoli	38	30	41	38	37
Brussels sprouts	26	18	26	27	29
Cabbage or sauerkraut	60	50	62	61	61
Carrots	59	58	59	60	62
Cauliflower	35	25	36	37	34
Celery	55	54	55	55	52
Corn	80	82	84	78	75
Cucumbers	52	49	58	49	44
Eggplant	22	13	21	23	29
Black-eyed peas	27	22	28	26	33
Green peas	66	64	65	65	72
Green peppers	48	43	51	48	44
Spinach	44	37	47	43	45
Lettuce or escarole	71	68	75	71	63
Lima beans	47	40	42	50	57
Okra	24	19	24	23	27
White onions	59	54	62	56	61
White potatoes	77	78	78	75	76
Green beans (snap, string, pole)	74	74	74	72	79
Radishes	41	36	46	38	34
Squash	42	34	40	43	55
Sweet potatoes	52	48	48	54	61
Tomatoes	81	80	82	81	78
Turnips	31	22	28	33	45
	----- <u>Number</u> -----				
Cases	2,174	249	878	765	282

Question 3a: "Which, if any, of the vegetables listed . . . does (member) particularly like?"

Vegetable	All adult females (excluding homemakers)				
	U.S. total	Age			
		20-24	25-44	45-64	65 and over
	----- <u>Percent</u> -----				
Asparagus	51	43	50	58	54
Beets	55	36	53	68	67
Broccoli	47	46	46	48	48
Brussels sprouts	31	27	30	35	32
Cabbage or sauerkraut	65	58	62	71	70
Carrots	67	70	58	73	66
Cauliflower	43	43	40	47	42
Celery	61	66	57	65	56
Corn	78	83	79	79	71
Cucumbers	59	62	61	59	53
Eggplant	28	25	28	32	29
Black-eyed peas	29	23	29	31	33
Green peas	71	73	64	74	74
Green peppers	50	52	55	56	39
Spinach	47	38	51	51	50
Lettuce or escarole	72	73	73	75	67
Lima beans	48	42	49	54	48
Okra	27	23	28	31	28
White onions	59	57	55	63	64
White potatoes	74	73	70	79	74
Green beans (snap, string, pole)	74	74	71	80	73
Radishes	41	48	41	42	32
Squash	47	40	43	51	57
Sweet potatoes	59	49	56	66	66
Tomatoes	78	73	78	84	78
Turnips	35	22	33	44	44
	----- <u>Number</u> -----				
Cases	426	120	103	96	107



Question 3a: "Which, if any, of the vegetables listed . . . does (member) particularly like?"

Vegetable	All boys			
	U.S. total	Age		
		2-9	10-14	15-19
	----- <u>Percent</u> -----			
Asparagus	21	21	18	26
Beets	28	30	27	28
Broccoli	26	25	22	32
Brussels sprouts	16	14	15	20
Cabbage or sauerkraut	45	39	45	55
Carrots	63	66	63	58
Cauliflower	22	21	21	25
Celery	55	52	58	54
Corn	87	88	86	85
Cucumbers	49	47	50	50
Eggplant	10	10	10	12
Black-eyed peas	21	21	19	23
Green peas	57	59	55	56
Green peppers	32	28	33	37
Spinach	35	36	35	34
Lettuce or escarole	66	62	66	70
Lima beans	32	33	29	32
Okra	14	13	14	16
White onions	41	36	42	46
White potatoes	80	78	81	80
Green beans (snap, string, pole)	64	64	64	64
Radishes	32	28	36	32
Squash	25	23	24	28
Sweet potatoes	42	41	41	46
Tomatoes	65	61	65	70
Turnips	16	14	18	16
	----- <u>Number</u> -----			
Cases	1,443	551	485	407

Question 3a: "Which, if any, of the vegetables listed . . . does (member) particularly like?"

Vegetable	All girls			
	U.S. total	Age		
		2-9	10-14	15-19
	----- <u>Percent</u> -----			
Asparagus	25	21	25	31
Beets	28	28	26	29
Broccoli	28	24	29	33
Brussels sprouts	17	14	19	20
Cabbage or sauerkraut	46	42	46	52
Carrots	62	64	60	59
Cauliflower	23	20	22	29
Celery	56	52	56	61
Corn	84	85	81	84
Cucumbers	51	47	52	54
Eggplant	9	8	9	11
Black-eyed peas	21	21	21	21
Green peas	54	53	54	55
Green peppers	32	26	34	38
Spinach	34	32	35	37
Lettuce or escarole	66	62	67	70
Lima beans	32	32	31	33
Okra	15	14	16	16
White onions	40	33	43	47
White potatoes	74	74	75	73
Green beans (snap, string, pole)	63	62	63	66
Radishes	31	26	32	36
Squash	26	26	25	29
Sweet potatoes	41	40	40	43
Tomatoes	68	63	66	76
Turnips	15	14	16	16
	----- <u>Number</u> -----			
Cases	1,381	551	440	390

Question 3b: "Which, if any, of the vegetables listed . . . does (member) particularly dislike?"

Vegetable	All homemakers				
	U.S. total	Age			
		Under 25	25-44	45-64	65 and over
	----- <u>Percent</u> -----				
Asparagus	21	39	23	15	18
Beets	15	38	18	10	8
Broccoli	23	41	21	20	27
Brussels sprouts	32	50	30	29	35
Cabbage or sauerkraut	8	14	7	7	9
Carrots	7	12	6	6	7
Cauliflower	23	47	22	19	22
Celery	7	15	5	6	9
Corn	2	1	1	3	5
Cucumbers	10	11	7	9	15
Eggplant	40	58	42	34	38
Black-eyed peas	34	36	36	34	32
Green peas	5	11	5	3	4
Green peppers	12	16	9	10	19
Spinach	23	34	24	19	24
Lettuce or escarole	3	5	1	3	4
Lima beans	19	32	21	14	15
Okra	40	48	40	40	39
White onions	7	10	5	7	8
White potatoes	2	2	1	3	3
Green beans (snap, string, pole)	3	4	2	3	3
Radishes	21	27	19	19	29
Squash	22	44	24	18	14
Sweet potatoes	12	29	14	9	8
Tomatoes	2	4	2	2	4
Turnips	35	54	39	32	22
	----- <u>Number</u> -----				
Cases	2,600	252	1,004	899	425

Question 3b: "Which, if any, of the vegetables listed . . . does (member) particularly dislike?"

Vegetable	All adult males (excluding homemakers)				
	U.S. total	Age			
		20-24	25-44	45-64	65 and over
	----- <u>Percent</u> -----				
Asparagus	31	41	37	22	28
Beets	24	35	30	18	14
Broccoli	31	35	32	27	35
Brussels sprouts	41	49	44	36	36
Cabbage or sauerkraut	14	21	13	14	14
Carrots	10	12	10	9	11
Cauliflower	33	43	35	28	35
Celery	11	11	11	9	15
Corn	3	3	2	3	5
Cucumbers	16	16	13	18	24
Eggplant	43	49	46	39	39
Black-eyed peas	34	41	34	33	31
Green peas	7	10	9	5	4
Green peppers	16	22	13	15	23
Spinach	27	34	27	24	27
Lettuce or escarole	4	3	3	3	9
Lima beans	22	33	27	15	15
Okra	42	46	43	41	40
White onions	8	12	7	8	9
White potatoes	2	1	1	2	4
Green beans (snap, string, pole)	4	6	4	3	3
Radishes	21	25	17	20	34
Squash	28	39	31	25	18
Sweet potatoes	15	20	19	11	13
Tomatoes	4	6	4	3	4
Turnips	37	45	42	33	29
	----- <u>Number</u> -----				
Cases	2,174	249	878	765	282

Question 3b: "Which, if any, of the vegetables listed . . . does (member) particularly dislike?"

Vegetable	All adult females (excluding homemakers)				
	U.S. total	Age			
		20-24	25-44	45-64	65 and over
	----- <u>Percent</u> -----				
Asparagus	23	33	25	17	15
Beets	16	33	16	6	7
Broccoli	23	27	24	19	21
Brussels sprouts	36	43	30	33	36
Cabbage or sauerkraut	13	18	11	9	14
Carrots	7	7	13	3	5
Cauliflower	26	31	25	20	26
Celery	9	8	11	9	8
Corn	5	3	5	4	8
Cucumbers	15	14	6	20	20
Eggplant	40	42	38	42	39
Black-eyed peas	36	38	34	38	35
Green peas	6	6	9	2	7
Green peppers	16	14	11	15	24
Spinach	25	36	19	19	22
Lettuce or escarole	4	3	3	3	5
Lima beans	19	27	19	13	18
Okra	40	38	45	36	41
White onions	9	14	6	5	9
White potatoes	4	5	4	2	3
Green beans (snap, string, pole)	4	7	5	0	5
Radishes	24	19	22	25	29
Squash	23	31	30	13	15
Sweet potatoes	10	16	13	6	6
Tomatoes	4	8	3	1	5
Turnips	37	50	40	29	25
	----- <u>Number</u> -----				
Cases	426	120	103	96	107

Question 3b: "Which, if any, of the vegetables listed . . . does (member) particularly dislike."

Vegetable	All boys			
	U.S. total	Age		
		2-9	10-14	15-19
	----- <u>Percent</u> -----			
Asparagus	49	50	53	44
Beets	41	41	41	40
Broccoli	43	43	46	39
Brussels sprouts	52	53	53	49
Cabbage or sauerkraut	26	30	26	18
Carrots	11	9	11	12
Cauliflower	43	42	47	42
Celery	11	15	8	10
Corn	2	3	1	2
Cucumbers	17	18	16	18
Eggplant	52	48	55	53
Black-eyed peas	36	36	38	34
Green peas	15	16	15	15
Green peppers	28	33	28	22
Spinach	38	38	39	36
Lettuce or escarole	6	9	5	5
Lima beans	33	30	36	33
Okra	44	45	44	43
White onions	19	25	17	12
White potatoes	3	3	3	2
Green beans (snap, string, pole)	8	10	8	6
Radishes	28	35	24	25
Squash	41	44	41	38
Sweet potatoes	23	25	25	20
Tomatoes	13	16	11	10
Turnips	50	49	50	50
	----- <u>Number</u> -----			
Cases	1,443	551	485	407

Question 3b: "Which, if any, of the vegetables listed . . . does (member) particularly dislike."

Vegetable	All girls			
	U.S. total	Age		
		2-9	10-14	15-19
	----- <u>Percent</u> -----			
Asparagus	45	47	46	42
Beets	39	39	39	37
Broccoli	40	43	40	36
Brussels sprouts	49	50	47	48
Cabbage or sauerkraut	24	27	24	20
Carrots	10	10	9	11
Cauliflower	41	41	43	38
Celery	10	13	8	7
Corn	2	2	2	3
Cucumbers	15	19	14	13
Eggplant	50	47	49	54
Black-eyed peas	36	36	34	38
Green peas	16	17	15	16
Green peppers	27	32	25	23
Spinach	37	38	35	37
Lettuce or escarole	5	7	3	3
Lima beans	34	32	33	36
Okra	42	41	43	42
White onions	19	25	16	15
White potatoes	3	4	2	3
Green beans (snap, string, pole)	8	8	8	6
Radishes	29	31	28	26
Squash	40	39	42	40
Sweet potatoes	26	25	26	27
Tomatoes	11	13	10	7
Turnips	49	48	48	51
	----- <u>Number</u> -----			
Cases	1,381	551	440	390

Question 4a: "Which, if any, of the vegetables listed . . . have you used for salads in the past 12 months?"

Respondent characteristics	Vegetables used for salads											Cases		
	Asparagus	Beets	Broccoli	Brussels sprouts	Cabbage or sauerkraut	Carrots	Cauli-flower	Celery	Corn	Cucumbers	Eggplant		Black-eyed peas	Green peas
	Percent											Number		
U.S. total	10	17	2	1	55	64	12	76	3	73	1	*	13	2,600
Community size:														
Metro areas--1 million and over	13	24	2	1	48	59	12	76	3	76	1	*	12	981
Other metro	9	15	2	1	59	68	14	77	3	72	*	1	13	1,072
Nonmetro	5	10	1	*	61	64	9	73	3	67	1	*	14	547
Homemaker's education:														
Grammar school or less	3	10	1	*	42	48	4	63	2	56	1	*	7	448
Some high school	5	17	2	*	51	56	7	73	3	70	1	*	10	441
High school graduate	9	16	2	1	58	66	10	78	3	76	*	1	13	972
Some college or more	19	24	4	*	63	76	24	85	3	80	1	*	17	695
Region:														
Northeast	7	20	3	*	45	56	10	79	2	78	1	0	9	617
North Central	6	13	2	1	64	69	14	78	4	71	*	1	16	741
South	9	13	1	*	54	61	8	69	2	68	1	1	8	838
West	22	29	2	*	57	71	20	82	4	77	0	*	21	404
Homemaker's age:														
Under 25	6	8	2	0	42	60	7	65	3	75	0	0	8	252
25-34	7	17	2	1	56	67	14	78	3	79	*	0	11	491
35-44	10	18	2	1	63	69	13	80	3	78	1	1	16	513
45-64	12	20	3	1	59	65	14	80	2	73	1	*	15	899
65 and over	9	16	1	0	45	53	9	69	3	57	*	*	10	425
Family income:														
Under \$6,000	7	14	1	*	46	53	5	64	3	60	*	*	10	763
\$6,000-\$9,999	8	13	1	*	56	64	9	78	3	71	1	1	13	596
\$10,000-\$14,999	8	18	2	1	58	67	13	80	2	79	1	1	15	702
\$15,000 and over	19	26	4	1	65	76	27	87	3	85	*	*	13	491
Family size:														
1-2 members	11	18	2	1	51	60	11	72	3	66	1	*	12	1,168
3 members	10	15	4	1	52	64	11	75	2	78	*	0	10	452
4 members	10	19	2	*	60	68	15	84	3	80	*	1	14	440
5 or more members	7	16	1	*	65	69	13	79	3	77	1	*	14	512
Family composition:														
Adults only	11	18	2	1	51	60	12	74	3	67	1	*	12	1,251
Have children under 20	8	16	2	*	60	67	13	78	3	78	*	*	13	1,349

\* Less than 1 percent.

Continued



Question 4a: "Which, if any, of the vegetables listed . . . have you used for salads in the past 12 months?"--Continued

Respondent characteristics	Vegetables used for salads										Cases			
	Green peppers	Spinach	Lettuce or escarole	Lima beans	Okra	White onions	White potatoes	Green beans (snap, string, pole)	Radishes	Squash		Sweet potatoes	Tomatoes	Turnips
	Percent										Number			
U.S. total	56	8	93	2	1	64	43	20	58	2	1	92	1	2,600
Community size:														
Metro areas--1 million and over	55	10	93	3	1	59	36	22	56	2	1	96	2	981
Other metro	59	8	94	2	*	67	44	20	59	1	1	91	1	1,072
Nonmetro	54	3	89	2	1	67	54	15	59	2	1	86	1	547
Homemaker's education:														
Grammar school or less	42	2	85	2	1	56	41	11	39	1	1	82	1	448
Some high school	54	6	92	2	*	65	44	15	52	*	1	90	2	441
High school graduate	57	5	93	2	1	65	43	20	62	1	1	95	2	972
Some college or more	67	16	97	3	1	67	45	28	70	3	1	95	1	695
Region:														
Northeast	56	7	95	1	0	58	37	19	58	1	1	95	*	617
North Central	60	9	93	3	1	70	44	22	63	1	1	91	1	741
South	53	5	89	1	1	63	46	12	50	2	1	88	2	838
West	57	13	94	5	*	64	44	32	64	3	*	96	3	404
Homemaker's age:														
Under 25	49	2	95	*	1	67	37	12	62	1	1	93	*	252
25-34	58	9	95	2	*	69	42	19	65	3	1	95	1	491
35-44	63	9	96	2	1	69	47	21	64	2	2	96	2	513
45-64	59	9	94	3	1	62	46	23	59	1	1	93	2	899
65 and over	45	5	83	3	*	53	37	17	38	*	*	82	2	425
Family income:														
Under \$6,000	46	3	85	3	1	59	45	14	40	1	1	83	2	763
\$6,000-\$9,999	53	6	95	2	1	65	43	19	59	2	1	93	1	596
\$10,000-\$14,999	61	7	96	2	1	67	43	20	65	2	*	97	1	702
\$15,000 and over	71	18	97	2	*	68	42	28	75	2	1	97	2	491
Family size:														
1-2 members	52	7	90	3	1	60	40	19	51	1	1	89	1	1,168
3 members	57	8	96	2	*	65	41	19	61	*	*	94	1	452
4 members	62	10	95	3	*	67	44	21	68	2	1	95	2	440
5 or more members	60	7	94	2	1	71	53	21	63	2	1	94	2	512
Family composition:														
Adults only	53	7	90	3	1	59	39	20	51	2	*	90	1	1,251
Have children under 20	60	8	95	2	1	68	47	19	64	2	1	94	2	1,349

\* Less than 1 percent.

Question 4b: "What other vegetables, if any, listed . . . do you think, could be used in salads?"

Respondent characteristics	Vegetables that could be used for salads											Cases		
	Asparagus	Beets	Broccoli	Brussels sprouts	Cabbage or sauerkraut	Carrots	Cauliflower	Celery	Corn	Cucumbers	Eggplant		Black-eyed peas	Green peas
U.S. total	21	27	7	4	19	18	23	14	8	15	4	3	21	2,600
Community size:														
Metro areas--1 million and over	24	29	9	4	21	19	27	14	7	13	4	4	22	981
Other metro	21	26	6	4	19	16	21	12	9	15	4	2	20	1,072
Nonmetro	18	23	4	3	13	18	18	17	8	18	3	2	24	547
Homemaker's education:														
Grammar school or less	12	20	4	2	23	26	13	19	5	22	3	1	16	448
Some high school	15	22	5	4	16	21	17	16	7	16	4	2	20	441
High school graduate	22	26	5	4	16	16	24	12	7	12	3	2	22	972
Some college or more	30	34	11	6	20	12	30	11	11	12	5	5	25	695
Region:														
Northeast	20	29	5	2	22	19	25	12	6	14	6	2	14	617
North Central	16	26	8	5	15	14	23	12	12	15	4	3	26	741
South	23	25	4	4	19	21	18	18	5	18	2	1	20	838
West	30	27	12	5	21	16	29	10	8	10	4	5	27	404
Homemaker's age:														
Under 25	15	24	5	4	24	22	18	23	8	13	5	4	18	252
25-34	23	27	7	5	19	17	22	13	8	11	5	5	22	491
35-44	22	27	7	4	15	15	25	12	9	12	5	2	21	513
45-64	24	28	7	4	18	17	26	11	9	15	3	2	24	899
65 and over	16	22	5	4	21	19	16	16	4	23	2	2	17	425
Family income:														
Under \$6,000	15	24	5	3	21	21	17	20	6	21	3	2	19	763
\$6,000-\$9,999	20	25	5	4	18	20	22	14	6	16	3	3	22	596
\$10,000-\$14,999	23	27	7	5	17	15	24	12	9	10	5	3	22	702
\$15,000 and over	29	32	12	6	19	14	32	7	11	10	5	3	25	491
Family size:														
1-2 members	22	26	6	4	21	18	22	16	7	19	3	2	22	1,168
3 members	19	28	6	3	18	21	23	16	8	12	3	3	22	452
4 members	23	26	8	5	18	15	24	8	10	9	5	4	21	440
5 or more members	21	26	8	4	14	15	23	13	8	12	6	3	20	512
Family composition:														
Adults only	22	27	6	4	21	19	23	15	7	19	3	2	22	1,251
Have children under 20	21	27	7	4	16	16	23	13	9	11	5	3	21	1,349

----- Percent -----

Number

Question 4b: "What other vegetables, if any, listed . . . do you think, could be used in salads?"--Continued

Respondent characteristics	Vegetables that could be used for salads										Cases			
	Green peppers	Spinach	Lettuce or escarole	Lima beans	Okra	White onions	White potatoes	Green beans (snap, string, pole)	Radishes	Squash		Sweet potatoes	Tomatoes	Turnips
	Percent										Number			
U.S. total	21	17	3	13	3	14	14	32	22	2	1	4	7	2,600
Community size:														
Metro areas--1 million and over	21	21	2	11	3	14	15	29	24	2	1	3	8	981
Other metro	20	16	2	13	3	13	14	34	21	3	2	4	7	1,072
Nonmetro	23	13	5	15	2	15	13	34	19	1	1	8	4	547
Homemaker's education:														
Grammar school or less	23	10	7	8	1	13	14	27	26	1	1	8	3	448
Some high school	23	12	3	12	4	16	14	32	25	2	1	7	6	441
High school graduate	22	17	3	13	2	13	13	32	21	1	1	3	6	972
Some college or more	17	25	1	16	5	14	16	36	18	4	2	3	11	695
Region:														
Northeast	24	17	2	11	3	15	10	29	24	2	*	3	3	617
North Central	18	19	2	16	3	13	14	31	19	2	1	5	7	741
South	22	15	4	9	2	14	16	36	23	1	1	6	6	858
West	21	20	1	18	4	14	17	32	19	3	3	2	13	404
Homemaker's age:														
Under 25	26	12	2	11	4	14	17	30	19	2	1	4	10	252
25-34	20	19	2	13	4	14	14	35	19	3	2	3	9	491
35-44	18	17	1	15	3	11	9	36	22	2	1	2	6	513
45-64	21	19	2	13	2	14	14	33	21	2	1	4	6	899
65 and over	23	15	8	11	2	16	19	24	28	1	1	10	4	425
Family income:														
Under \$6,000	23	11	7	10	2	16	16	26	26	1	1	9	4	763
\$6,000-\$9,999	24	15	1	13	3	15	15	36	24	2	1	3	8	596
\$10,000-\$14,999	20	20	1	14	3	12	12	34	19	2	1	2	6	702
\$15,000 and over	15	26	1	16	3	12	13	36	16	4	2	2	9	491
Family size:														
1-2 members	21	17	4	12	2	16	18	30	24	2	1	7	5	1,168
3 members	23	14	2	10	3	13	11	33	21	2	1	3	7	452
4 members	19	21	1	14	3	13	13	34	15	3	1	2	9	440
5 or more members	21	16	2	15	4	11	8	35	21	3	2	3	7	512
Family composition:														
Adults only	22	18	4	12	2	16	18	29	25	2	1	6	5	1,251
Have children under 20	20	17	2	14	3	12	11	35	19	2	1	3	8	1,349

\* Less than 1 percent.

Question 5: "Think for a moment about fresh, frozen, and canned vegetables which you see in stores . . . . Which of these words and phrases describe your opinion about (fresh) vegetables in general . . . . ?"

Descriptive phrases	U.S. total	Community size			Homemaker's education			
		Metro areas-- 1 million and over	Other metro	Nonmetro	Grammar school or less	Some high school	High school graduate	Some college or more
----- Percent -----								
Tastes good	90	88	90	92	87	87	91	92
Does not taste good	1	1	1	*	1	1	1	1
Low cost per serving	18	18	18	18	15	19	19	19
High cost per serving	21	24	21	19	24	19	20	23
Sure of good quality	49	48	48	52	51	51	48	48
Not sure of good quality	6	8	6	4	3	4	6	9
Usually available in stores (when in season)	56	59	57	48	46	48	57	65
Usually not available in stores (when in season)	4	5	3	3	2	4	4	3
Easy to prepare	42	41	43	41	41	42	42	42
Not easy to prepare	14	18	12	12	15	12	13	17
High in vitamins and minerals	72	75	71	70	58	66	76	81
Not high in vitamins and minerals	1	1	1	1	*	2	1	1
Easy to store	20	20	22	17	19	21	20	21
Not easy to store	20	23	17	18	19	16	20	22
Keeps well before cooking	19	17	23	16	20	20	20	18
Does not keep well before cooking	17	21	14	16	16	14	17	21
Good value for the money	39	39	39	40	33	41	40	41
Not a good value for the money	7	9	6	4	5	6	7	8
Not too much waste	25	23	28	23	21	27	26	25
Too much waste	17	19	15	15	19	14	17	17
Look appetizing at meal time	65	66	65	61	56	62	66	71
Do not look appetizing at meal time	1	2	*	1	2	2	*	*
Texture good	46	49	44	42	35	41	48	53
Texture not good	1	2	1	1	1	1	2	1
Appealing color	57	59	56	55	44	52	59	66
Color not appealing	1	1	1	1	1	1	1	1
Can use in many different ways	60	60	60	59	48	57	63	65
Cannot use in many different ways	3	4	2	2	4	3	2	2
----- Number -----								
Cases	2,600	981	1,072	547	448	441	972	695

\* Less than 1 percent.

Continued

Question 5: "Think for a moment about fresh, frozen, and canned vegetables which you see in stores . . . . Which of these words and phrases describe your opinion about (fresh) vegetables in general . . . ?"--Continued

Descriptive phrases	U.S. total	Region				Homemaker's age				
		North-east	North Central	South	West	Under 25	25-34	35-44	45-64	65 and over
		----- Percent -----								
Tastes good	90	91	88	89	92	91	91	90	89	89
Does not taste good	1	1	*	1	*	1	1	1	*	0
Low cost per serving	18	17	17	18	23	20	17	17	20	15
High cost per serving	21	23	18	23	22	24	20	22	21	22
Sure of good quality	49	50	43	54	48	50	49	45	50	49
Not sure of good quality	6	5	7	5	8	9	7	7	4	5
Usually available in stores (when in season)	56	55	57	51	63	61	56	58	56	49
Usually not available in stores (when in season)	4	4	4	3	4	6	5	4	3	3
Easy to prepare	42	43	46	33	52	41	42	42	41	43
Not easy to prepare	14	17	10	18	10	17	15	13	14	14
High in vitamins and minerals	72	73	71	71	77	75	76	78	71	63
Not high in vitamins and minerals	1	*	2	1	*	2	1	1	1	1
Easy to store	20	19	21	18	26	26	16	18	22	20
Not easy to store	20	22	15	22	20	25	23	20	17	19
Keeps well before cooking	19	18	21	17	24	21	15	18	20	22
Does not keep well before cooking	17	18	12	22	14	21	20	17	15	16
Good value for the money	39	35	38	39	47	42	44	36	38	37
Not a good value for the money	7	7	6	7	7	9	6	8	6	6
Not too much waste	25	27	26	22	27	28	26	26	25	22
Too much waste	17	16	11	20	20	20	16	16	16	18
Look appetizing at meal time	65	67	64	62	69	68	66	62	66	63
Do not look appetizing at meal time	1	*	*	2	*	0	1	1	1	*
Texture good	46	48	40	46	52	52	53	46	43	39
Texture not good	1	1	1	2	*	1	2	2	1	*
Appealing color	57	60	57	53	61	56	63	57	57	51
Color not appealing	1	*	1	1	*	0	1	*	1	1
Can use in many different ways	60	57	60	58	65	63	63	62	60	50
Cannot use in many different ways	3	2	2	3	2	2	2	3	2	2
		----- Number -----								
Cases	2,600	617	741	838	404	252	491	513	899	425

\* Less than 1 percent.

Continued

Question 5: "Think for a moment about fresh, frozen, and canned vegetables which you see in stores . . . . Which of these words and phrases describe your opinion about (fresh) vegetables in general . . . ?"--Continued

Descriptive phrases	U.S. total	Family income				Family size				Family composition	
		Under \$6,000	\$6,000 to \$9,999	\$10,000 to \$14,999	\$15,000 and over	1-2 members	3 members	4 members	5 or more members	Adults only	Have children under 20
		----- Percent -----									
Tastes good	90	90	90	88	92	89	90	90	90	89	90
Does not taste good	1	1	1	1	*	*	*	1	1	*	1
Low cost per serving	18	15	19	18	20	18	18	18	18	18	18
High cost per serving	21	22	22	21	19	21	18	23	24	20	22
Sure of good quality	49	50	52	48	44	49	48	51	47	49	49
Not sure of good quality	6	5	5	7	8	6	6	6	7	6	7
Usually available in stores (when in season)	56	49	57	57	62	54	58	57	58	53	58
Usually not available in stores (when in season)	4	4	5	4	1	3	4	4	5	3	4
Easy to prepare	42	41	43	43	41	43	42	41	41	43	41
Not easy to prepare	14	13	16	13	15	13	15	16	15	14	15
High in vitamins and minerals	72	64	72	77	79	67	76	79	75	67	78
Not high in vitamins and minerals	1	1	1	*	1	1	*	1	1	1	1
Easy to store	20	19	24	19	19	21	22	17	19	22	19
Not easy to store	20	19	18	20	20	18	20	23	20	19	21
Keeps well before cooking	19	18	21	20	17	20	21	17	18	20	19
Does not keep well before cooking	17	16	18	17	16	17	18	19	16	17	18
Good value for the money	39	38	39	39	41	37	39	39	41	36	41
Not a good value for the money	7	6	7	7	5	7	6	8	7	7	6
Not too much waste	25	24	26	27	24	24	27	25	25	24	26
Too much waste	17	17	17	16	14	17	17	18	15	17	17
Look appetizing at meal time	65	59	64	68	70	65	65	66	63	65	65
Do not look appetizing at meal time	1	1	1	1	*	1	1	1	2	1	1
Texture good	46	40	46	47	50	43	46	51	45	43	49
Texture not good	1	1	2	2	1	1	1	2	2	1	2
Appealing color	57	50	57	59	64	55	58	60	57	54	59
Color not appealing	1	1	1	1	*	1	1	*	*	1	1
Can use in many different ways	60	54	58	64	62	57	58	65	62	56	62
Cannot use in many different ways	3	3	3	2	2	2	3	2	3	2	3
		----- Number -----									
Cases	2,600	763	596	702	491	1,168	452	440	512	1,251	1,349

\* Less than 1 percent.

Question 5: "Think for a moment about fresh, frozen, and canned vegetables which you see in stores . . . . Which of these words and phrases describe your opinion about (frozen) vegetables in general . . . ?"

Descriptive phrases	U.S. total	Community size			Homemaker's education			
		Metro areas-- 1 million and over	Other metro	Nonmetro	Grammar school or less	Some high school	High school graduate	Some college or more
		----- Percent -----						
Tastes good	51	53	50	48	40	44	52	61
Does not taste good	11	12	11	10	11	17	10	8
Low cost per serving	14	16	14	10	10	13	14	16
High cost per serving	31	33	29	32	29	28	31	34
Sure of good quality	30	32	31	26	24	28	29	38
Not sure of good quality	15	16	12	15	12	15	14	17
Usually available in stores	37	43	35	28	25	28	37	50
Usually not available in stores	3	4	3	3	3	3	4	2
Easy to prepare	69	72	68	64	56	63	71	78
Not easy to prepare	2	2	2	2	2	2	3	1
High in vitamins and minerals	27	28	27	26	17	22	28	37
Not high in vitamins and minerals	6	8	5	4	5	5	7	6
Easy to store	62	64	62	58	43	55	66	72
Not easy to store	4	5	4	4	5	3	5	4
Keeps well before cooking	55	58	57	46	36	47	57	70
Does not keep well before cooking	3	2	2	4	4	2	2	2
Good value for the money	27	30	27	22	20	25	27	33
Not a good value for the money	12	16	9	11	11	13	13	12
Not too much waste	52	50	54	51	42	43	56	58
Too much waste	5	7	5	2	2	6	6	6
Look appetizing at meal time	34	37	33	31	24	25	35	45
Do not look appetizing at meal time	4	6	3	2	3	5	4	3
Texture good	25	29	24	20	15	21	27	31
Texture not good	8	10	7	6	5	8	9	9
Appealing color	32	35	32	26	25	24	33	41
Color not appealing	6	6	6	3	4	7	6	5
Can use in many different ways	32	34	32	29	22	28	33	41
Cannot use in many different ways	8	9	10	5	6	7	9	9
		----- Number -----						
Cases	2,600	981	1,072	547	448	441	972	695

Continued

Question 5: "Think for a moment about fresh, frozen, and canned vegetables which you see in stores . . . . Which of these words and phrases describe your opinion about (frozen) vegetables in general . . . ?"--Continued

Descriptive phrases	U.S. total	Region				Homemaker's age				
		North-east	North Central	South	West	Under 25	25-34	35-44	45-64	65 and over
		----- Percent -----								
Tastes good	51	52	51	47	58	52	52	53	50	48
Does not taste good	11	11	11	12	10	16	14	11	10	8
Low cost per serving	14	13	12	13	20	17	16	15	12	10
High cost per serving	31	30	26	34	33	31	29	33	31	31
Sure of good quality	30	30	28	31	34	23	27	28	35	33
Not sure of good quality	15	13	13	14	21	20	17	17	13	9
Usually available in stores	37	36	35	34	47	43	41	36	34	33
Usually not available in stores	3	1	3	5	3	6	3	3	2	2
Easy to prepare	69	70	66	67	75	67	71	69	70	64
Not easy to prepare	2	2	3	2	2	4	2	2	2	1
High in vitamins and minerals	27	24	27	27	34	25	25	31	29	24
Not high in vitamins and minerals	6	6	5	5	9	11	7	6	4	4
Easy to store	62	65	61	57	71	61	66	64	62	54
Not easy to store	4	4	5	3	4	10	4	4	3	4
Keeps well before cooking	55	58	52	50	64	63	64	58	53	40
Does not keep well before cooking	3	2	2	3	3	3	2	3	3	4
Good value for the money	27	25	27	25	35	32	28	25	27	27
Not a good value for the money	12	12	11	12	16	16	13	13	12	8
Not too much waste	52	55	49	53	49	47	48	51	58	47
Too much waste	5	3	6	4	11	11	8	4	4	4
Look appetizing at meal time	34	36	33	31	40	37	33	34	35	32
Do not look appetizing at meal time	4	4	4	3	5	5	7	3	3	2
Texture good	25	24	21	24	32	29	24	25	25	21
Texture not good	8	6	8	8	10	12	11	9	6	5
Appealing color	32	32	30	30	41	29	29	32	35	32
Color not appealing	6	4	6	5	8	11	8	5	4	4
Can use in many different ways	32	34	32	30	36	35	34	35	32	27
Cannot use in many different ways	8	7	8	8	10	16	10	7	7	5
		----- Number -----								
Cases	2,600	617	741	838	404	252	491	513	899	425

Continued



Question 5: "Think for a moment about fresh, frozen, and canned vegetables which you see in stores . . . . Which of these words and phrases describe your opinion about (frozen) vegetables in general . . . ?"--Continued

Descriptive phrases	U.S. total	Family income				Family size				Family composition	
		Under \$6,000	\$6,000 to \$9,999	\$10,000 to \$14,999	\$15,000 and over	1-2 members	3 members	4 members	5 or more members	Adults only	Have children under 20
		----- Percent -----									
Tastes good	51	46	51	51	58	49	50	54	53	49	53
Does not taste good	11	11	13	11	9	10	12	12	10	10	12
Low cost per serving	14	13	15	13	16	12	14	18	13	12	15
High cost per serving	31	31	32	30	31	30	31	28	34	31	31
Sure of good quality	30	28	32	30	32	33	29	30	28	32	29
Not sure of good quality	15	12	15	15	18	14	15	16	14	14	15
Usually available in stores	37	31	33	38	47	36	34	39	39	35	38
Usually not available in stores	3	2	5	3	3	3	3	3	3	3	3
Easy to prepare	69	64	65	70	79	67	70	72	70	67	70
Not easy to prepare	2	3	2	2	1	2	2	2	2	2	2
High in vitamins and minerals	27	25	25	30	32	26	23	31	31	25	30
Not high in vitamins and minerals	6	6	7	5	5	6	7	6	4	6	5
Easy to store	62	51	61	66	74	59	64	64	65	60	64
Not easy to store	4	4	5	4	2	4	4	3	5	4	4
Keeps well before cooking	55	43	53	58	69	49	57	61	60	49	60
Does not keep well before cooking	3	3	4	2	2	3	3	3	2	3	2
Good value for the money	27	26	28	28	29	26	25	29	29	26	28
Not a good value for the money	12	11	14	12	12	13	12	10	12	12	12
Not too much waste	52	47	51	54	58	52	51	49	55	52	52
Too much waste	5	4	6	6	7	5	5	8	4	5	6
Look appetizing at meal time	34	31	33	34	40	34	31	37	35	34	35
Do not look appetizing at meal time	4	3	5	4	3	3	5	3	4	3	4
Texture good	25	21	25	25	28	24	21	27	26	24	26
Texture not good	8	5	10	9	9	7	10	9	9	7	9
Appealing color	32	30	32	30	37	32	28	34	34	32	32
Color not appealing	6	5	7	6	5	5	7	5	6	5	6
Can use in many different ways	32	29	32	34	37	30	32	36	36	30	35
Cannot use in many different ways	8	6	12	8	8	8	10	6	9	8	9
		----- Number -----									
Cases	2,600	763	596	702	491	1,168	452	440	512	1,251	1,349

Question 5: "Think for a moment about fresh, frozen, and canned vegetables which you see in stores . . . . Which of these words and phrases describe your opinion about (canned) vegetables in general . . . ?"

Descriptive phrases	U.S. total	Community size			Homemaker's education			
		Metro areas-- 1 million and over	Other metro	Nonmetro	Grammar school or less	Some high school	High school graduate	Some college or more
----- Percent -----								
Tastes good	41	37	43	42	44	40	43	36
Does not taste good	18	24	16	11	12	18	15	27
Low cost per serving	37	37	39	34	34	36	38	40
High cost per serving	8	9	7	9	9	9	7	8
Sure of good quality	24	24	25	21	21	23	25	26
Not sure of good quality	21	22	19	22	15	20	19	27
Usually available in stores	41	46	39	37	28	36	42	52
Usually not available in stores	2	3	2	2	3	2	3	2
Easy to prepare	74	75	75	73	68	73	75	79
Not easy to prepare	1	1	1	1	1	2	1	1
High in vitamins and minerals	16	17	16	15	11	15	17	18
Not high in vitamins and minerals	15	19	12	11	10	14	13	19
Easy to store	77	75	76	82	75	72	78	81
Not easy to store	2	2	1	1	*	2	2	2
Keeps well before cooking	65	63	66	65	56	61	65	72
Does not keep well before cooking	1	1	1	1	1	2	*	1
Good value for the money	41	41	40	41	36	39	42	43
Not a good value for the money	6	8	4	5	4	5	6	7
Not too much waste	51	48	53	55	49	50	51	54
Too much waste	6	7	6	3	3	6	6	7
Look appetizing at meal time	20	20	20	22	18	21	21	21
Do not look appetizing at meal time	12	18	10	7	6	12	10	20
Texture good	19	21	19	18	16	19	21	19
Texture not good	13	17	11	9	7	11	10	21
Appealing color	16	17	16	15	13	15	17	17
Color not appealing	16	20	13	13	8	14	13	25
Can use in many different ways	44	42	46	43	41	44	45	44
Cannot use in many different ways	6	8	5	3	5	6	5	7
----- Number -----								
Cases	2,600	981	1,072	547	448	441	972	695

\* Less than 1 percent.

Continued

Question 5: "Think for a moment about fresh, frozen, and canned vegetables which you see in stores . . . . Which of these words and phrases describe your opinion about (canned) vegetables in general . . . ?"--Continued

Descriptive phrases	U.S. total	Region				Homemaker's age				
		North-east	North Central	South	West	Under 25	25-34	35-44	45-64	65 and over
----- Percent -----										
Tastes good	41	35	44	41	43	44	40	41	39	42
Does not taste good	18	23	12	16	27	23	20	18	17	15
Low cost per serving	37	37	35	37	40	38	37	37	37	36
High cost per serving	8	5	8	10	10	13	9	6	8	8
Sure of good quality	24	21	25	25	25	20	20	25	27	24
Not sure of good quality	21	21	18	19	28	33	24	21	18	15
Usually available in stores	41	36	40	39	54	55	44	41	40	33
Usually not available in stores	2	2	2	4	1	3	2	2	2	2
Easy to prepare	74	77	76	71	75	79	76	80	72	69
Not easy to prepare	1	1	1	1	1	1	1	1	1	*
High in vitamins and minerals	16	13	17	16	19	18	15	15	16	15
Not high in vitamins and minerals	15	13	13	15	19	20	15	14	15	10
Easy to store	77	74	77	78	79	83	80	76	75	78
Not easy to store	2	1	1	2	2	1	2	2	2	*
Keeps well before cooking	65	60	64	66	71	71	70	66	63	58
Does not keep well before cooking	1	*	1	1	1	3	1	*	1	1
Good value for the money	41	40	42	39	43	41	41	43	42	38
Not a good value for the money	6	5	5	6	8	11	7	5	5	3
Not too much waste	51	52	51	53	48	48	51	50	54	51
Too much waste	6	5	6	4	10	9	8	5	5	4
Look appetizing at meal time	20	18	21	21	23	25	22	19	20	20
Do not look appetizing at meal time	12	14	9	11	19	17	14	11	12	9
Texture good	19	16	20	20	22	22	19	19	20	16
Texture not good	13	12	11	12	19	15	16	12	12	9
Appealing color	16	13	14	18	20	17	17	15	15	16
Color not appealing	16	18	14	11	25	19	19	16	14	11
Can use in many different ways	44	40	47	41	50	48	46	46	43	40
Cannot use in many different ways	6	6	5	6	7	7	8	7	5	3
----- Number -----										
Cases	2,600	617	741	838	404	252	491	513	899	425

\* Less than 1 percent.

Continued

Question 5: "Think for a moment about fresh, frozen, and canned vegetables which you see in stores . . . . Which of these words and phrases describe your opinion about (canned) vegetables in general . . . ?"--Continued

Descriptive phrases	U.S. total	Family income				Family size				Family composition	
		Under \$6,000	\$6,000 to \$9,999	\$10,000 to \$14,999	\$15,000 and over	1-2 members	3 members	4 members	5 or more members	Adults only	Have children under 20
		----- Percent -----									
Tastes good	41	43	41	41	35	41	42	38	41	40	41
Does not taste good	18	14	18	18	26	17	18	23	18	17	19
Low cost per serving	37	36	39	37	36	36	37	39	40	35	39
High cost per serving	8	10	8	7	7	8	9	8	7	8	8
Sure of good quality	24	26	24	23	24	26	19	24	24	25	23
Not sure of good quality	21	17	22	20	24	19	24	22	21	19	22
Usually available in stores	41	36	41	43	47	39	41	44	43	38	44
Usually not available in stores	2	3	3	2	2	2	3	3	2	2	2
Easy to prepare	74	70	73	78	77	71	74	79	78	71	77
Not easy to prepare	1	1	1	1	1	1	2	*	*	1	1
High in vitamins and minerals	16	17	15	16	16	15	14	18	17	15	17
Not high in vitamins and minerals	15	12	16	16	14	14	14	17	13	14	15
Easy to store	77	76	77	77	80	76	78	81	76	76	78
Not easy to store	2	1	2	2	1	2	2	1	2	2	1
Keeps well before cooking	65	60	65	66	70	62	66	68	67	62	68
Does not keep well before cooking	1	1	1	1	1	1	*	1	1	1	1
Good value for the money	41	39	41	41	43	39	39	45	44	39	43
Not a good value for the money	6	6	5	7	5	6	5	6	5	5	6
Not too much waste	51	51	52	51	52	52	52	50	51	51	51
Too much waste	6	5	6	5	6	5	5	6	6	5	6
Look appetizing at meal time	20	23	22	19	17	21	19	21	20	20	21
Do not look appetizing at meal time	12	8	12	13	19	11	11	15	13	11	13
Texture good	19	19	21	19	19	19	17	20	21	19	19
Texture not good	13	9	12	14	19	11	12	18	12	11	14
Appealing color	16	18	16	14	15	15	16	18	16	16	16
Color not appealing	16	11	14	16	23	14	14	19	17	13	18
Can use in many different ways	44	43	43	46	44	42	43	45	48	41	47
Cannot use in many different ways	6	4	5	7	7	5	5	6	6	5	7
		----- Number -----									
Cases	2,600	763	596	702	491	1,168	452	440	512	1,251	1,349

\* Less than 1 percent.

Question 6: ". . . . For each of these vegetables I name that you have bought in the past 12 months please tell me the form you generally buy-- fresh, frozen, canned or dried."

Vegetable	U.S. total						Cases
	Fresh	Frozen	Canned	Dried	Not bought in past 12 months	No answer	
	----- Percent -----						----- Number -----
Asparagus	23	14	34	*	31	*	2,600
Beets	13	1	64	*	23	*	2,600
Black-eyed peas	5	5	13	13	65	*	2,600
Broccoli	22	45	2	*	32	*	2,600
Brussels sprouts	14	37	1	*	47	*	2,600
Carrots	86	3	6	*	6	*	2,600
Cauliflower	42	21	1	*	37	*	2,600
Corn	34	18	51	1	4	*	2,600
Eggplant	31	1	*	*	67	1	2,600
Green peas	10	30	57	1	6	*	2,600
Spinach	18	24	33	*	27	1	2,600
Lima beans	6	26	27	12	30	1	2,600
White onions	83	1	2	6	9	*	2,600
White potatoes	91	2	1	5	4	*	2,600
Green beans	34	18	48	1	5	1	2,600
Squash	56	8	2	*	36	1	2,600
Sweet potatoes	52	1	27	2	21	1	2,600
Tomatoes	80	*	24	*	6	*	2,600
Turnips	42	2	2	*	54	1	2,600

\* Less than 1 percent.

Question 7a: "Within the past 12 months, have you or have you not bought any fresh, frozen, or canned vegetables that were unsatisfactory in any way?"

Incidence of purchase	U.S. total
	<u>Percent</u>
Have bought unsatisfactory vegetables	32
Have not bought unsatisfactory vegetables	68
	<u>Number</u>
Cases.....	2,600

Question 7b: "About how many times did this happen within the past 12 months?"  
 (Asked only if reported buying unsatisfactory fresh, frozen, or canned vegetables in the 12 months prior to interviewing.)

Frequency of purchase	U.S. total
	<u>Percent</u>
Once.....	34
Twice.....	23
Three times.....	12
Four times.....	5
Five times.....	3
Six times.....	5
Seven-ten times.....	4
Eleven-fifteen times.....	4
Over fifteen times.....	3
No answer.....	7
	<u>Number</u>
Cases.....	819

Questions 8a,b: "Which of the vegetables on this card, if any, did you use in new recipes in the past 12 months?" "Which of the vegetables on this card, if any, would you be interested in having new recipes for?"

Vegetable	U.S. total	
	Used in the past 12 months	Interested in new recipes
	----- <u>Percent</u> -----	
Asparagus	5	12
Beets	3	7
Broccoli	5	9
Brussels sprouts	1	6
Cabbage or sauerkraut	14	16
Carrots	11	12
Cauliflower	5	9
Celery	11	7
Corn	8	14
Cucumbers	6	7
Eggplant	7	12
Black-eyed peas	1	3
Green peas	7	9
Green peppers	14	12
Spinach	4	7
Lettuce or escarole	5	8
Lima beans	3	6
Okra	2	5
White onions	13	6
White potatoes	11	16
Green beans (snap, string, pole)	12	15
Radishes	2	3
Squash	7	11
Sweet potatoes	4	10
Tomatoes	14	14
Turnips	1	4
None	52	43
	----- <u>Number</u> -----	
Cases	2,600	2,600

Question 9a: "Which, if any, of the items on this list do you think should be on the labels of canned and frozen vegetables?"

Respondent characteristics	Items that should be shown										Number
	Brand name	Cooking directions	Calories per serving	U.S. grades	Style-- whole, slice, diced, etc.	Net weight or contents	List of kinds and amounts of nutrients	Recipes or serving ideas	Ingredients	Date after which product is not to be sold	
U.S. total	87	68	59	67	80	78	52	47	77	85	2,600
Community size:											
Metro areas--1 million and over	85	68	59	67	78	79	54	47	78	84	981
Other metro	88	70	62	70	82	80	55	50	78	87	1,072
Nonmetro	89	65	55	60	81	75	46	44	72	81	547
Homemaker's education:											
Grammar school or less	86	63	46	58	74	70	38	47	66	76	448
Some high school	86	65	55	62	73	71	47	47	72	80	441
High school graduate	87	68	60	68	81	80	54	45	77	88	972
Some college or more	89	74	71	74	88	86	64	50	86	90	695
Region:											
Northeast	88	66	57	65	79	80	54	42	76	84	617
North Central	82	68	61	63	77	79	52	45	74	86	741
South	91	70	57	69	81	75	48	52	76	81	838
West	88	68	64	71	87	80	60	51	83	91	404
Homemaker's age:											
Under 25	89	76	63	74	85	75	68	53	81	90	252
25-34	86	69	62	68	82	77	61	46	83	90	491
35-44	87	69	61	69	81	81	57	48	78	88	513
45-64	87	68	61	66	79	78	48	48	75	84	899
65 and over	90	62	48	60	77	77	38	44	68	74	425
Family income:											
Under \$6,000	88	64	49	63	76	72	44	46	69	77	763
\$6,000-\$9,999	87	70	57	66	81	80	52	47	78	85	596
\$10,000-\$14,999	87	67	63	68	81	80	58	46	79	88	702
\$15,000 and over	87	73	71	71	83	83	57	51	82	90	491
Family size:											
1-2 members	88	65	57	65	80	78	47	47	75	82	1,168
3 members	86	71	58	66	78	78	54	44	77	83	452
4 members	89	70	67	71	82	78	60	47	79	90	440
5 or more members	84	70	58	67	81	79	56	52	78	87	512
Family composition:											
Adults only	88	65	56	63	78	77	45	46	73	81	1,251
Have children under 20	87	71	62	70	82	79	60	49	80	88	1,349



Question 9b: "Which, if any, of the items on this list do you usually look for at the time of purchase?"

Respondent characteristics	Items usually look for										Number
	Brand name	Cooking directions	Calories per serving	U.S. grades	Style-- whole, slice, diced, etc.	Net weight of contents	List of kinds and amounts of nutrients	Recipes or serving ideas	Ingredients	Date after which product is not to be sold	
U.S. total	76	27	16	28	68	53	15	16	45	33	2,600
Community size:											
Metro areas--1 million and over	75	25	15	27	66	51	16	16	48	31	981
Other metro	78	31	19	32	71	55	16	17	45	36	1,072
Nonmetro	76	24	14	21	66	51	11	15	39	29	547
Homemaker's education:											
Grammar school or less	77	30	13	23	61	47	8	18	36	23	448
Some high school	77	28	18	28	61	46	14	17	42	30	441
High school graduate	77	25	15	29	67	54	14	15	44	35	972
Some college or more	75	27	20	30	77	60	20	16	54	38	695
Region:											
Northeast	76	25	16	26	70	56	15	11	42	32	617
North Central	71	24	16	28	65	59	14	13	49	29	741
South	80	33	17	28	65	45	13	23	42	36	838
West	80	22	17	31	76	53	18	16	50	32	404
Homemaker's age:											
Under 25	72	33	19	35	75	55	22	22	43	52	252
25-34	73	28	18	28	70	50	19	16	51	39	491
35-44	75	26	16	29	68	58	15	16	48	34	513
45-64	79	27	17	28	68	53	12	16	45	28	899
65 and over	79	25	13	23	63	50	10	15	37	21	425
Family income:											
Under \$6,000	76	26	14	23	62	47	12	18	38	25	763
\$6,000-\$9,999	77	28	15	35	71	58	15	14	48	35	596
\$10,000-\$14,999	76	26	18	28	69	55	17	14	48	37	702
\$15,000 and over	76	27	18	26	72	55	15	17	47	34	491
Family size:											
1-2 members	78	27	16	26	67	50	12	15	42	28	1,168
3 members	75	26	17	30	68	54	16	17	48	38	452
4 members	78	27	20	31	71	53	20	17	48	38	440
5 or more members	72	29	13	29	67	59	14	17	48	34	512
Family composition:											
Adults only	79	26	16	25	67	51	11	15	42	27	1,251
Have children under 20	74	28	16	31	69	55	18	17	48	38	1,349

Question 9c: "Which, if any, of these items are not usually shown on the labels of canned and frozen vegetables?"

Respondent characteristics	Items not usually shown										Number
	Brand name	Cooking directions	Calories per serving	U.S. grades	Style-- whole, sliced, etc.	Net weight of contents	List of kinds and amounts of nutrients	Recipes or serving ideas	Ingredi-ents	Date after which product is not to be sold	
U.S. total	2	18	62	31	2	3	49	37	10	79	2,600
Community size:											
Metro areas--1 million and over	2	17	60	32	3	2	50	37	10	80	981
Other metro	1	19	64	30	2	2	51	38	8	79	1,072
Nonmetro	2	19	61	30	2	3	45	34	12	75	547
Homemaker's education:											
Grammar school or less	2	17	48	24	3	3	37	29	9	67	448
Some high school	1	20	61	28	3	4	42	37	12	75	441
High school graduate	2	18	62	28	2	2	50	40	8	81	972
Some college or more	1	18	72	40	2	2	62	37	12	86	695
Region:											
Northeast	2	15	56	28	1	2	44	34	9	81	617
North Central	1	15	60	30	2	2	48	37	7	79	741
South	2	21	63	28	3	4	49	35	12	75	838
West	1	22	73	41	3	1	59	44	12	82	404
Homemaker's age:											
Under 25	1	19	68	37	2	2	50	46	9	79	252
25-34	1	16	66	33	2	1	54	41	9	81	491
35-44	2	18	65	28	2	3	55	38	9	83	513
45-64	1	19	60	33	2	3	49	35	11	79	899
65 and over	3	18	52	24	4	4	37	28	10	70	425
Family income:											
Under \$6,000	2	19	55	25	3	4	40	34	11	74	763
\$6,000-\$9,999	2	15	64	32	2	2	51	33	10	81	596
\$10,000-\$14,999	1	19	60	31	2	2	52	37	10	79	702
\$15,000 and over	1	18	71	36	2	3	57	42	9	83	491
Family size:											
1-2 members	2	18	60	30	3	3	46	34	11	77	1,168
3 members	1	18	67	35	2	1	53	38	10	80	452
4 members	1	16	60	32	2	3	51	39	10	79	440
5 or more members	1	20	64	28	2	3	53	40	8	81	512
Family composition:											
Adults only	2	18	59	30	2	3	46	33	11	77	1,251
Have children under 20	1	18	64	31	2	2	52	40	9	80	1,349

Question 10a: "Here is a brief description of a new product . . . . If this product was available would you try it or not?"

Respondent characteristics	Quick-cooking frozen pinto beans		Cases
	Would try	Would not try	
	----- <u>Percent</u> -----		<u>Number</u>
U.S. total	49	51	1,320
Community size:			
Metro areas--1 million and over	45	55	497
Other metro	50	50	544
Nonmetro	52	48	279
Homemaker's education:			
Grammar school or less	47	53	233
Some high school	57	43	212
High school graduate	45	55	508
Some college or more	49	51	351
Region:			
Northeast	39	61	312
North Central	50	50	385
South	55	45	421
West	49	51	202
Homemaker's age:			
Under 25	47	53	115
25-34	46	53	263
35-44	46	54	260
45-64	54	46	471
65 and over	43	57	207
Family income:			
Under \$6,000	50	50	386
\$6,000-\$9,999	49	51	306
\$10,000-\$14,999	46	54	358
\$15,000 and over	51	48	244
Family size:			
1-2 members	48	52	586
3 members	50	50	226
4 members	46	54	215
5 or more members	51	49	275
Family composition:			
Adults only	48	52	629
Have children under 20	49	50	691

Question 10b: "Why doesn't this product appeal to you?" (Asked only of respondents who said they would not be willing to try quick-cooking frozen pinto beans.)

Reasons	U.S. total
	<u>Percent</u>
Family member(s) doesn't like or use pinto beans	27
Don't like or use beans, bean products in general	16
Don't like or use frozen foods; prefer other form	14
Taste	12
Would not like taste (unspecified)	6
Would not taste fresh; artificial taste	3
Other taste mentions	4
Never ate pinto beans; not familiar with them	12
May cause digestive problems	10
Do not prepare dishes suggested	9
Don't like to try new products	8
Disagree with cooking time	6
Doesn't sound appealing, appetizing	6
Would be too expensive	5
Would be fattening; high in calories, starchy	5
Would not be nutritious	2
Not enough information; description too vague	2
Other mentions	6
	<u>Number</u>
Cases	676
Average responses per case	1.41

Question 10c: "What is it about this product idea that appeals to you?" (Asked only of respondents who said they would try quick-cooking frozen pinto beans.)

Reasons	U.S. total
	<u>Percent</u>
Convenience	70
Quick to prepare	62
Easy to prepare	17
Easy to store; space saver	2
Would have on hand if needed	2
Convenient *(unspecified)	1
Can be used for specific dish or dishes	23
Would be nutritious	20
Would not be too expensive	18
Could be used in many ways; versatile product	16
Family members like or use pinto beans in particular	15
Like to try new products	13
Like or use beans or bean products in general	11
Taste	10
Would like the taste (unspecified)	7
Would taste like fresh	3
Would add variety to diet	5
Sounds appealing, appetizing	4
Like frozen foods	3
Other mentions	3
	<u>Number</u>
Cases	643
Average responses per case	2.25

Questions 10d,e: "How sure are you that you would try it?" "Assuming the product is satisfactory, do you think you would use it regularly or just once in a while?" (Asked only of respondents who said they would try quick-cooking frozen pinto beans.)

Respondent characteristics	How sure				How often			Cases
	Absolutely sure	Quite sure	A little doubtful	No answer	Regularly	Once in a while	No answer	
	----- Percent -----							Number
U.S. total	31	52	16	1	36	63	1	643
Community size:								
Metro areas--1 million and over	36	46	17	1	36	63	1	225
Other metro	29	55	16	*	35	64	1	273
Nonmetro	28	55	15	1	37	62	1	145
Homemaker's education:								
Grammar school or less	31	46	22	1	38	61	1	110
Some high school	36	50	14	0	38	62	0	121
High school graduate	31	51	17	1	39	60	1	230
Some college or more	29	56	13	1	30	68	2	172
Region:								
Northeast	28	52	20	0	33	67	0	123
North Central	32	50	17	1	31	68	1	191
South	34	50	16	1	43	56	1	230
West	29	59	10	2	34	64	2	99
Homemaker's age:								
Under 25	28	59	13	0	41	59	0	54
25-34	29	48	24	0	42	57	1	122
35-44	34	50	14	2	38	60	2	120
45-64	36	50	14	1	35	64	1	255
65 and over	22	59	18	1	26	73	1	90
Family income:								
Under \$6,000	33	51	16	1	38	61	1	192
\$6,000-\$9,999	37	45	17	1	40	59	1	150
\$10,000-\$14,999	25	56	19	0	35	65	0	165
\$15,000 and over	30	54	13	2	30	66	3	125
Family size:								
1-2 members	36	51	12	1	34	65	1	282
3 members	26	54	19	1	35	64	1	112
4 members	25	48	26	0	33	67	0	99
5 or more members	33	50	16	1	43	55	2	141
Family composition:								
Adults only	35	51	13	1	33	66	1	301
Have children under 20	29	52	19	1	38	61	1	342

\* Less than 1 percent.

Question 10a: "Here is a brief description of a new product . . . . If this product was available would you try it or not?"

Respondent characteristics	Explosion-puffed potato slices		Cases
	Would try	Would not try	
	----- <u>Percent</u> -----		<u>Number</u>
U.S. total	49	51	1,280
Community size:			
Metro areas--1 million and over	48	52	484
Other metro	51	49	528
Nonmetro	48	52	268
Homemaker's education:			
Grammar school or less	51	49	215
Some high school	52	48	229
High school graduate	46	54	464
Some college or more	51	49	344
Region:			
Northeast	48	51	305
North Central	51	49	356
South	49	51	417
West	50	50	202
Homemaker's age:			
Under 25	47	53	137
25-34	46	54	228
35-44	47	53	253
45-64	56	44	428
65 and over	44	56	218
Family income:			
Under \$6,000	46	54	377
\$6,000-\$9,999	55	45	290
\$10,000-\$14,999	48	51	344
\$15,000 and over	49	50	247
Family size:			
1-2 members	48	52	582
3 members	50	50	226
4 members	51	49	225
5 or more members	50	50	237
Family composition:			
Adults only	49	51	622
Have children under 20	49	50	658

Question 10b: "Why doesn't this product appeal to you?" (Asked only of respondents who said they would not be willing to try explosion-puffed potato slices.)

Reasons	U.S. total
	<u>Percent</u>
Prefer using fresh vegetables; prefer fresh for cooking	31
Taste	30
Processing causes loss of flavor; changes taste	11
Would not taste fresh; artificial taste	10
Would not like taste (unspecified)	8
Other taste mentions	1
Don't like or use dehydrated foods; prefer other form	15
Would not be nutritious	15
Would be too expensive	9
Doesn't sound appealing, appetizing	8
No advantage over other forms; no need for this kind of product	7
Don't understand or trust explosion-puffed process	7
Don't like to try new products	6
Texture	4
May contain undesirable preservatives, additives, chemicals	3
All or some family members would not eat it	3
Don't like or use or eat potatoes	3
Other mentions	10
Don't know or no answer	1
	<u>Number</u>
Cases	647
Average responses per case	1.52



Question 10c: "What is it about this product idea that appeals to you?" (Asked only of respondents who said they would try explosion-puffed potato slices.)

Reasons	U.S. total
	<u>Percent</u>
Convenience	85
Quick to prepare	67
Easy to prepare	27
Easy to store; space saver	9
Would keep well; would not spoil	5
Easy to transport	3
Convenient (unspecified)	1
Like to try new products	19
Taste	11
Would like the taste (unspecified)	9
Would taste like fresh	2
Other taste mentions	0
Would like appearance (e.g., color, shape)	10
Could be used in specific dish or dishes	9
Would be nutritious	6
Could be used in many ways; versatile product	6
Sounds appealing, appetizing	6
Would have on hand if needed	5
Like or use or eat potatoes	5
Would not be too expensive	3
Would be no waste; could prepare amount needed	2
Other mentions	3
	<u>Number</u>
Cases	631
Average responses per case	1.97

Questions 10d,e: "How sure are you that you would try it?" "Assuming the product is satisfactory, do you think you would use it regularly or just once in a while?" (Asked only of respondents who said they would try explosion-puffed potato slices.)

Respondent characteristics	How sure				How often			Cases
	Absolutely sure	Quite sure	A little doubtful	No answer	Regularly	Once in a while	No answer	
	----- Percent -----							Number
U.S. total	35	47	18	*	41	58	1	631
Community size:								
Metro areas--1 million and over	40	41	17	1	44	54	2	234
Other metro	32	50	19	0	38	61	*	268
Nonmetro	30	51	19	0	40	60	0	129
Homemaker's education:								
Grammar school or less	28	51	21	0	35	65	0	110
Some high school	34	44	20	2	39	60	1	119
High school graduate	37	47	16	*	46	53	1	212
Some college or more	35	48	17	0	39	60	1	177
Region:								
Northeast	37	47	14	1	37	61	2	147
North Central	37	46	17	0	42	57	1	180
South	33	49	18	*	42	58	0	203
West	30	45	26	0	40	60	0	101
Homemaker's age:								
Under 25	22	66	13	0	47	53	0	64
25-34	38	43	19	0	45	54	1	105
35-44	33	46	22	0	42	58	0	120
45-64	37	47	16	1	41	57	2	238
65 and over	36	41	22	1	28	72	0	96
Family income:								
Under \$6,000	35	49	17	0	42	58	0	173
\$6,000-\$9,999	38	44	19	0	34	65	1	160
\$10,000-\$14,999	31	52	16	1	49	50	1	166
\$15,000 and over	34	43	22	1	34	63	2	122
Family size:								
1-2 members	37	44	19	0	38	62	*	279
3 members	36	46	18	0	47	53	0	114
4 members	37	43	18	2	44	53	3	115
5 or more members	26	55	18	1	36	63	1	118
Family composition:								
Adults only	37	42	20	*	38	62	*	306
Have children under 20	32	51	16	1	43	56	1	325

\* Less than 1 percent.

Question 11a: "Here is a brief description of a new product . . . . If this product was available would you try it or not?"

Respondent characteristics	Instant bean dip powder		Cases
	Would try	Would not try	
	----- <u>Percent</u> -----		<u>Number</u>
U.S. total	28	72	1,320
Community size:			
Metro areas--1 million and over	28	72	497
Other metro	29	71	544
Nonmetro	26	73	279
Homemaker's education:			
Grammar school or less	28	72	233
Some high school	28	72	212
High school graduate	27	73	508
Some college or more	28	72	351
Region:			
Northeast	19	81	312
North Central	32	68	385
South	27	73	421
West	37	63	202
Homemaker's age:			
Under 25	29	71	115
25-34	29	71	263
35-44	33	67	260
45-64	27	73	471
65 and over	21	79	207
Family income:			
Under \$6,000	29	71	386
\$6,000-\$9,999	25	74	306
\$10,000-\$14,999	28	72	358
\$15,000 and over	29	71	244
Family size:			
1-2 members	25	75	586
3 members	29	70	226
4 members	31	69	215
5 or more members	30	70	275
Family composition:			
Adults only	24	75	629
Have children under 20	31	69	691

Question 11b: "Why doesn't this product appeal to you?" (Asked only of respondents who said they would not be willing to try instant bean dip powder.)

Reasons	U.S. total
	<u>Percent</u>
Do not use bean dip or refried beans, bean soup	38
Don't like or use powdered foods; prefer other form	25
Taste	19
Would not like taste (unspecified)	12
Would not taste fresh; artificial taste	5
Other taste mentions	2
Don't like or use beans or bean products in general	11
Doesn't sound appealing, appetizing	8
May cause digestive problems	6
Would prefer to make own bean dip or refried beans or bean soup	5
All or some family members would not eat it	4
Don't like to try new products	4
Texture	3
Would be mushy, soft	2
Would be dry, sticky, powdery	1
Would be fattening; high in calories, starchy	3
Would not be nutritious	2
Would be too expensive	2
May contain undesirable preservatives, additives	2
Doubts about refried beans; don't know what they are	1
Other mentions	5
	<u>Number</u>
Cases	951
Average responses per case	1.38

Question 11c: "What is it about this product idea that appeals to you?" (Asked only of respondents who said they would try instant bean dip powder.)

Reasons	U.S. total
	<u>Percent</u>
Convenience	59
Quick to prepare	30
Easy to prepare	29
Would have on hand if needed	10
Easy to store; space saver	6
Convenient (unspecified)	5
Would keep well; would not spoil	4
Could be used for specific dish or dishes	44
Like to try new products	23
Could be used in many ways; versatile product	15
Taste	9
Would like the taste (unspecified)	8
Other taste mentions	1
, Like or use beans or bean products in general	7
All or some family members would eat this product	7
Would not be too expensive	5
Would be no waste; could prepare amount needed	4
Other mentions	4
	<u>Number</u>
Cases	367
Average responses per case	2.02

Questions 11d,e: "How sure are you that you would try it?" "Assuming the product is satisfactory, do you think you would use it regularly or just once in a while?" (Asked only of respondents who said they would try instant bean dip powder.)

Respondent characteristics	How sure				How often			Cases
	Absolutely sure	Quite sure	A little doubtful	No answer	Regularly	Once in a while	No answer	
	----- Percent -----							Number
U.S. total	33	48	19	1	28	71	1	367
Community size:								
Metro areas--1 million and over	42	40	17	1	29	70	1	138
Other metro	27	54	19	0	26	73	1	156
Nonmetro	29	48	22	1	32	67	1	73
Homemaker's education:								
Grammar school or less	31	45	23	2	38	60	2	65
Some high school	43	47	8	2	27	70	3	60
High school graduate	29	53	18	0	28	72	0	138
Some college or more	33	44	23	0	22	78	0	97
Region:								
Northeast	36	42	22	0	29	69	2	59
North Central	34	45	21	0	29	71	0	122
South	31	54	13	2	29	69	2	112
West	32	47	20	0	27	73	0	74
Homemaker's age:								
Under 25	27	48	24	0	27	73	0	33
25-34	25	55	18	1	24	75	1	76
35-44	38	41	21	0	28	72	0	86
45-64	38	43	19	0	35	65	0	127
65 and over	25	61	11	2	20	75	5	44
Family income:								
Under \$6,000	31	46	21	2	29	68	3	112
\$6,000-\$9,999	35	53	13	0	36	64	0	78
\$10,000-\$14,999	35	48	18	0	23	77	0	101
\$15,000 and over	31	46	23	0	25	75	0	71
Family size:								
1-2 members	34	49	17	1	32	66	1	148
3 members	27	47	24	2	20	78	2	66
4 members	37	43	19	0	30	70	0	67
5 or more members	33	50	17	0	28	72	0	82
Family composition:								
Adults only	30	51	19	1	27	71	1	154
Have children under 20	35	46	19	*	29	70	*	213

\* Less than 1 percent.

Questions 11f,g: "If it would not change the taste, would you prefer the bean powder be fortified with protein for nutritional purposes or not?" "Would you prefer the bean powder to be seasoned or unseasoned?" (Asked only of respondents who said they would try bean powder.)

Response	U.S. total	
	Preference	
	Fortified with protein	Seasoned
	----- <u>Percent</u> -----	
Yes	85	66
No	13	32
No answer	2	1
	<u>Number</u>	
Cases	367	367

Question 11a: "Here is a brief description of a new product . . . . If this product was available would you try it or not?"

Respondent characteristics	Explosion-puffed carrots		Cases
	Would try	Would not try	
	-----	<u>Percent</u>	-----
			<u>Number</u>
U.S. total	35	64	1,280
Community size:			
Metro areas--1 million and over	37	63	484
Other metro	37	63	528
Nonmetro	30	69	268
Homemaker's education:			
Grammar school or less	37	62	215
Some high school	38	62	229
High school graduate	34	66	464
Some college or more	35	65	344
Region:			
Northeast	35	64	305
North Central	38	62	356
South	32	68	417
West	38	62	202
Homemaker's age:			
Under 25	35	64	137
25-34	30	69	228
35-44	34	66	253
45-64	39	61	428
65 and over	35	64	218
Family income:			
Under \$6,000	35	65	377
\$6,000-\$9,999	36	64	290
\$10,000-\$14,999	35	65	344
\$15,000 and over	36	63	247
Family size:			
1-2 members	36	64	582
3 members	36	64	226
4 members	36	64	225
5 or more members	33	66	237
Family composition:			
Adults only	36	64	622
Have children under 20	35	65	658



Question 11b: "Why doesn't this product appeal to you?" (Asked only of respondents who said they would not be willing to try explosion-puffed carrots.)

Reasons	U.S. total
	<u>Percent</u>
Prefer using fresh vegetables in preparation of meals (unspecified)	30
Taste	28
Would not taste fresh; artificial taste	15
Would not like taste (unspecified)	9
Tasteless, flat, bland	4
Other taste mentions	1
Don't like or use dehydrated foods; prefer other form	17
Would not be nutritious	13
No advantage over other forms; no need for this kind of product	12
Don't understand or trust explosion-puffed process	9
Doesn't sound appealing, appetizing	8
Don't like or use carrots	7
Would be too expensive	6
Dislike texture; would not have texture of fresh carrots	6
Don't like to try new products	4
All or some family members would not eat it	4
May contain undesirable preservatives, additives	2
Other mentions	6
Don't know or no answer	1
	<u>Number</u>
Cases	824
Average responses per case	1.54

Question 11c: "What is it about this product idea that appeals to you?" (Asked only of respondents who said they would try explosion-puffed carrots.)

Reasons	U.S. total
	<u>Percent</u>
Convenience	76
Quick to prepare	53
Easy to prepare	29
Easy to store; space saver	9
Would keep well; would not spoil	6
Would have on hand if needed	6
Convenient (unspecified)	5
Easy to transport	4
Like to try new products	23
Taste	22
Would taste like fresh	12
Would like the taste (unspecified)	8
Other taste mentions	2
Would like appearance	16
Texture	8
Would be nutritious	8
Could be used in many ways; versatile product	5
Would not be too expensive	4
Would be no waste; could prepare amount needed	3
Sounds appealing, appetizing	3
Like or use carrots	2
All or some family members would eat this product	1
Other mentions	6
	<u>Number</u>
Cases	452
Average responses per case	2.13

Questions 11d,e: "How sure are you that you would try it?" "Assuming the product is satisfactory, do you think you would use it regularly or just once in a while?" (Asked only of respondents who said they would try explosion-puffed carrots.)

Respondent characteristics	How sure				How often			Cases
	Absolutely sure	Quite sure	A little doubtful	No answer	Regularly	Once in a while	No answer	
	----- Percent -----							Number
U.S. total	31	49	19	1	38	61	1	452
Community size:								
Metro areas--1 million and over	30	48	20	2	39	59	2	178
Other metro	32	50	18	1	39	59	2	193
Nonmetro	33	48	19	0	32	68	0	81
Homemaker's education:								
Grammar school or less	33	49	19	0	40	60	0	80
Some high school	32	48	18	1	36	63	1	87
High school graduate	36	43	20	1	41	56	3	157
Some college or more	24	57	18	2	34	65	1	120
Region:								
Northeast	37	45	15	3	34	63	3	108
North Central	31	49	20	0	37	62	1	134
South	34	48	16	1	43	56	1	134
West	18	55	26	0	36	64	0	76
Homemaker's age:								
Under 25	19	52	27	2	44	56	0	48
25-34	28	46	25	1	48	49	3	69
35-44	23	59	18	0	25	75	0	87
45-64	41	42	15	2	38	59	2	165
65 and over	31	52	17	0	39	61	0	77
Family income:								
Under \$6,000	33	48	19	0	42	58	0	131
\$6,000-\$9,999	32	48	19	1	38	60	2	105
\$10,000-\$14,999	29	50	19	2	37	61	2	119
\$15,000 and over	31	48	19	2	31	67	2	90
Family size:								
1-2 members	33	47	20	*	41	58	1	208
3 members	37	47	14	2	35	64	1	81
4 members	31	46	22	1	41	57	2	81
5 or more members	23	57	19	1	28	71	1	79
Family composition:								
Adults only	35	46	19	*	41	58	1	223
Have children under 20	28	52	19	2	35	63	2	229

\* Less than 1 percent.

Question 12a: "Here is a brief description of a new product . . . . If this product was available would you try it or not?"

Respondent characteristics	Frozen bean salad		Cases
	Would try	Would not try	
	----- Percent -----		Number
U.S. total	43	57	1,320
Community size:			
Metro areas--1 million and over	41	59	497
Other metro	45	55	544
Nonmetro	42	58	279
Homemaker's education:			
Grammar school or less	41	59	233
Some high school	41	59	212
High school graduate	40	60	508
Some college or more	50	50	351
Region:			
Northeast	38	62	312
North Central	46	54	385
South	42	58	421
West	47	53	202
Homemaker's age:			
Under 25	39	61	115
25-34	43	57	263
35-44	47	53	260
45-64	46	54	471
65 and over	35	65	207
Family income:			
Under \$6,000	41	59	386
\$6,000-\$9,999	46	54	306
\$10,000-\$14,999	41	59	358
\$15,000 and over	48	52	244
Family size:			
1-2 members	41	59	586
3 members	43	57	226
4 members	43	57	215
5 or more members	47	53	275
Family composition:			
Adults only	42	58	629
Have children under 20	44	56	691

Question 12b: "Why doesn't this product appeal to you?" (Asked only of respondents who said they would not be willing to try frozen bean salad.)

Reasons	U.S. total
	<u>Percent</u>
Don't like this number of different beans being mixed together	19
Don't like or use particular beans mentioned	16
Don't like bean salads	16
Taste	14
Would not like taste (unspecified)	9
Would not taste fresh	2
Tasteless, bland	1
Other taste mentions	3
Prefer to make own salads rather than purchase pre-mixed product	13
Don't like or use frozen food; prefer other form	9
Don't like or use beans or bean products in general	8
May cause digestive problems	7
Would be too expensive	5
All or some family members would not eat it	5
Doesn't sound appealing, appetizing	5
Dislike texture	5
Don't like to try new products	3
Would be fattening, high in calories, starch	2
Might be watery when thawed	2
Would not be nutritious	1
Other mentions	6
Don't know or no answer	1
	<u>Number</u>
Cases	750
Average responses per case	1.43

Question 12c: "What is it about this product idea that appeals to you?" (Asked only of respondents who said they would try frozen bean salad.)

Reasons	U.S. total
	<u>Percent</u>
Convenience	56
Quick to prepare	32
Easy to prepare	24
Would have on hand if needed	7
Easy to store; space saver	3
Convenient (unspecified)	2
Like or use variety of beans included	29
Like bean salad	24
Like to try new products	14
Taste	11
Would like the taste (unspecified)	9
Other taste mentions	2
Would be nutritious	9
Like or use beans or bean products in general	6
Sounds appealing, appetizing	6
Economical; would not have to buy several types of beans	4
Would not be too expensive	4
All or some family members would eat this product	3
Would be no waste; could prepare amount needed	3
Could be used in many ways; versatile product	1
Other mentions	3
	<u>Number</u>
Cases	569
Average responses per case	1.85

Questions 12d,e: "How sure are you that you would try it?" "Assuming the product is satisfactory, do you think you would use it regularly or just once in a while?" (Asked only of respondents who said they would try frozen bean salad.)

Respondent characteristics	How sure				How often			Cases
	Absolutely sure	Quite sure	A little doubtful	No answer	Regularly	Once in a while	No answer	
	----- Percent -----							Number
U.S. total	34	50	14	2	27	71	2	569
Community size:								
Metro areas--1 million and over	38	43	16	3	31	66	3	205
Other metro	32	53	12	2	24	74	2	247
Nonmetro	32	53	13	3	25	72	3	117
Homemaker's education:								
Grammar school or less	26	57	13	4	21	75	4	95
Some high school	46	41	10	2	33	63	3	87
High school graduate	39	47	13	1	27	72	1	204
Some college or more	27	53	17	3	26	71	3	177
Region:								
Northeast	35	52	13	1	29	70	1	120
North Central	35	43	20	2	27	71	2	178
South	34	54	8	3	28	68	3	177
West	31	51	13	5	21	76	3	94
Homemaker's age:								
Under 25	22	47	27	4	24	76	0	45
25-34	27	54	16	3	25	72	3	112
35-44	43	44	11	2	31	67	2	123
45-64	37	50	10	3	31	66	3	215
65 and over	31	53	15	1	14	85	1	72
Family income:								
Under \$6,000	33	52	11	4	24	72	4	157
\$6,000-\$9,999	34	51	13	3	30	69	1	142
\$10,000-\$14,999	34	47	17	1	27	71	2	146
\$15,000 and over	37	49	13	1	29	70	1	118
Family size:								
1-2 members	36	47	14	2	25	72	2	242
3 members	35	53	11	1	29	70	1	97
4 members	28	53	15	3	25	73	2	92
5 or more members	34	52	12	3	30	66	4	128
Family composition:								
Adults only	37	47	14	3	24	73	3	263
Have children under 20	32	52	13	2	29	69	2	306

Question 12f: "Would you prefer that salad dressing be included in the bean salad or not?" (Asked only of respondents who said they would try frozen bean salad.)

Preference	U.S. total
Would prefer	<u>Percent</u> 40
Would not prefer	57
No answer	3
Cases	<u>Number</u> 569



Question 12a: "Here is a brief description of a new product . . . . If this product was available would you try it or not?"

Respondent characteristics	Tomato wedges		Cases
	Would try	Would not try	
	----- <u>Percent</u> -----		<u>Number</u>
U.S. total	57	43	1,280
Community size:			
Metro areas--1 million and over	54	46	484
Other metro	59	41	528
Nonmetro	57	43	268
Homemaker's education:			
Grammar school or less	58	42	215
Some high school	63	37	229
High school graduate	53	47	464
Some college or more	59	41	344
Region:			
Northeast	50	49	305
North Central	61	39	356
South	59	41	417
West	54	46	202
Homemaker's age:			
Under 25	56	44	137
25-34	55	44	228
35-44	57	43	253
45-64	62	38	428
65 and over	47	52	218
Family income:			
Under \$6,000	53	47	377
\$6,000-\$9,999	59	41	290
\$10,000-\$14,999	60	40	344
\$15,000 and over	56	43	247
Family size:			
1-2 members	56	44	582
3 members	55	45	226
4 members	58	42	225
5 or more members	60	40	237
Family composition:			
Adults only	56	44	622
Have children under 20	58	42	658

Question 12b: "Why doesn't this product appeal to you?" (Asked only of respondents who said they would not be willing to try tomato wedges.)

Reasons	U.S. total
	<u>Percent</u>
Prefer using fresh tomatoes for salads; would not use canned	34
Taste	33
Would not taste as good as fresh tomatoes; artificial	27
Would not like taste (unspecified)	4
Other taste mentions	4
Dislike texture; would not have texture of fresh tomatoes, soft	18
Would be too expensive	14
Can own tomatoes	7
No advantage over other forms; no need for this type of product	5
Would not be nutritious	3
Pound can inconvenient; waste; leftovers	3
Don't like or use canned tomatoes	2
Doesn't sound appealing, appetizing	2
Don't like to try new products	2
Diet or health reasons	1
Other mentions	10
Don't know or no answer	1
	<u>Number</u>
Cases	551
Average responses per case	1.37

Question 12c: "What is it about this product idea that appeals to you?" (Asked only of respondents who said they would try tomato wedges.)

Reasons	U.S. total
	<u>Percent</u>
Convenience	41
Easy to prepare	19
Would have on hand if needed	11
Easy to store; space saver	8
Quick to prepare	7
Would keep well; would not spoil	6
Convenient (unspecified)	2
Taste	31
Would taste like fresh tomatoes	19
Would taste better than out-of-season fresh tomatoes	7
Would like the taste (unspecified)	6
Other taste mentions	1
Available year-round in stores; could use when fresh not available	24
Would not be too expensive; would be cheaper	23
Could be used in salads	23
Would be cheaper than fresh tomatoes that are out of season	18
Like or use tomatoes	9
Like to try new products	6
Could be used in many ways; versatile product	4
Would like appearance (e.g., color, shape)	4
Texture	2
Would be nutritious	1
Would be no waste; could prepare amount needed	1
Sounds appealing, appetizing	1
Other mentions	6
	<u>Number</u>
Cases	727
Average responses per case	2.08

Questions 12d,e: "How sure are you that you would try it?" "Assuming the product is satisfactory, do you think you would use it regularly or just once in a while?" (Asked only of respondents who said they would try tomato wedges.)

Respondent characteristics	How sure				How often			Cases
	Absolutely sure	Quite sure	A little doubtful	No answer	Regularly	Once in a while	No answer	
	----- Percent -----							Number
U.S. total	46	44	8	2	53	44	3	727
Community size:								
Metro areas--1 million and over	49	39	10	2	51	47	2	261
Other metro	48	43	7	2	57	40	3	312
Nonmetro	37	52	8	3	47	49	3	154
Homemaker's education:								
Grammar school or less	42	41	13	4	49	47	4	124
Some high school	49	43	5	3	60	37	3	144
High school graduate	47	43	7	2	53	44	3	246
Some college or more	44	46	9	1	50	50	*	202
Region:								
Northeast	47	42	8	3	60	37	3	154
North Central	49	40	10	1	48	50	1	217
South	43	48	6	3	56	40	4	247
West	43	45	10	2	47	51	2	109
Homemaker's age:								
Under 25	34	48	14	4	56	40	4	77
25-34	45	47	7	1	53	46	1	126
35-44	45	43	10	2	56	42	2	144
45-64	50	41	7	2	51	46	3	266
65 and over	48	43	7	3	52	45	3	103
Family income:								
Under \$6,000	47	41	9	4	53	43	4	200
\$6,000-\$9,999	49	40	9	3	49	47	4	172
\$10,000-\$14,999	40	49	9	1	53	46	1	205
\$15,000 and over	47	45	6	1	55	44	1	139
Family size:								
1-2 members	48	41	9	2	52	45	3	324
3 members	46	44	9	2	49	49	2	125
4 members	45	48	5	2	60	38	2	130
5 or more members	41	46	10	4	52	44	4	142
Family composition:								
Adults only	50	40	8	2	52	45	3	346
Have children under 20	42	47	8	3	54	43	3	381

Question 13a: "Here is a brief description of a new product . . . . If this product was available would you try it or not?"

Respondent characteristics	Explosion-puffed celery		Cases
	Would try	Would not try	
	-----	<u>Percent</u> -----	<u>Number</u>
U.S. total	36	63	1,320
Community size:			
Metro areas--1 million and over	33	66	497
Other metro	39	60	544
Nonmetro	35	65	279
Homemaker's education:			
Grammar school or less	32	68	233
Some high school	38	62	212
High school graduate	36	64	508
Some college or more	38	61	351
Region:			
Northeast	37	63	312
North Central	36	64	385
South	37	63	421
West	34	65	202
Homemaker's age:			
Under 25	33	67	115
25-34	38	61	263
35-44	40	59	60
45-64	37	63	471
65 and over	29	71	207
Family income:			
Under \$6,000	35	65	386
\$6,000-\$9,999	38	62	306
\$10,000-\$14,999	35	65	358
\$15,000 and over	37	62	244
Family size:			
1-2 members	35	65	586
3 members	39	60	226
4 members	37	62	215
5 or more members	37	63	275
Family composition:			
Adults only	35	65	629
Have children under 20	37	62	691

Question 13b: "Why doesn't this product appeal to you?" (Asked only of respondents who said they would not be willing to try explosion-puffed celery.)

Reasons	U.S. total
	<u>Percent</u>
Prefer using fresh vegetables, including celery	30
Taste	20
Would not taste fresh; artificial taste	16
Would not like taste (unspecified)	2
Other taste mentions	2
Don't like or use dehydrated foods; prefer other form	17
Would not be nutritious	12
Doesn't sound appealing, appetizing	9
No need for this kind of product; other desirable forms available	8
Don't like or eat celery; use only occasionally	6
Don't understand or trust explosion-puffed process	4
Would be too expensive	4
Dislike texture; would not have texture of fresh celery	4
All or some family members would not eat it	2
May contain undesirable preservatives, additives	2
Don't like to try new products	2
Other mentions	8
	<u>Number</u>
Cases	838
Average responses per case	1.28

Question 13c: "What is it about this product idea that appeals to you?" (Asked only of respondents who said they would try explosion-puffed celery.)

Reasons	U.S. total
	<u>Percent</u>
Convenience	66
Quick to prepare	36
Easy to prepare	15
Easy to store; space saver	11
Would keep well; would not spoil	10
Would have on hand if needed	8
Easy to transport	3
Convenient (unspecified)	3
Would be a good snack	15
Taste	11
Would taste like fresh	6
Would like the taste (unspecified)	5
Like to try new products	10
Would be no waste; could prepare amount needed	5
Would be nutritious	5
Like or use celery	4
Would be low in calories; good for dieting	3
Could be used in many ways; versatile product	3
Like or use dehydrated foods	3
Texture	3
Sounds appealing, appetizing	2
Available year-round in stores; not seasonal	2
Other mentions	5
	<u>Number</u>
Cases	478
Average responses per case	1.57

Questions 13d,e: "How sure are you that you would try it?" "Assuming the product is satisfactory, do you think you would use it regularly or just once in a while?" (Asked only of respondents who said they would try explosion-puffed celery.)

Respondent characteristics	How sure				How often			Cases
	Absolutely sure	Quite sure	A little doubtful	No answer	Regularly	Once in a while	No answer	
	----- Percent -----							Number
U.S. total	31	51	16	1	40	59	1	478
Community size:								
Metro areas--1 million and over	40	48	12	0	43	57	0	166
Other metro	25	53	20	2	36	62	2	213
Nonmetro	31	53	13	3	43	55	2	99
Homemaker's education:								
Grammar school or less	28	54	18	0	43	57	0	74
Some high school	35	48	15	3	36	63	1	80
High school graduate	35	46	19	1	41	58	1	181
Some college or more	27	60	10	3	39	58	3	135
Region:								
Northeast	30	59	10	0	37	63	0	116
North Central	38	46	13	3	45	51	4	139
South	27	51	21	1	40	60	0	154
West	29	49	19	3	35	64	1	69
Homemaker's age:								
Under 25	26	53	16	5	42	55	3	38
25-34	22	60	17	1	40	57	3	100
35-44	44	41	14	1	49	50	1	105
45-64	35	49	15	1	38	61	1	175
65 and over	17	63	19	2	29	71	0	59
Family income:								
Under \$6,000	30	53	16	1	43	57	0	135
\$6,000-\$9,999	30	52	15	3	37	60	3	117
\$10,000-\$14,999	30	47	20	2	38	60	2	125
\$15,000 and over	37	53	10	0	42	57	1	90
Family size:								
1-2 members	33	50	16	1	38	61	1	203
3 members	30	55	15	1	39	59	2	88
4 members	29	53	16	3	50	49	1	80
5 or more members	33	50	16	1	37	61	2	101
Family composition:								
Adults only	33	50	15	2	41	58	1	219
Have children under 20	30	53	17	1	39	59	2	259



Question 13a: "Here is a brief description of a new product . . . . If this product was available would you try it or not?"

Respondent characteristics	Tomato powder		Cases
	Would try	Would not try	
	-----	<u>Percent</u> -----	<u>Number</u>
U.S. total	51	49	1,280
Community size:			
Metro areas--1 million and over	49	51	484
Other metro	55	44	528
Nonmetro	47	53	268
Homemaker's education:			
Grammar school or less	41	59	215
Some high school	52	48	229
High school graduate	52	48	464
Some college or more	58	42	344
Region:			
Northeast	42	57	305
North Central	50	49	356
South	55	45	417
West	58	42	202
Homemaker's age:			
Under 25	64	36	137
25-34	57	43	228
35-44	49	51	253
45-64	52	48	428
65 and over	37	62	218
Family income:			
Under \$6,000	44	55	377
\$6,000-\$9,999	50	50	290
\$10,000-\$14,999	56	44	344
\$15,000 and over	55	44	247
Family size:			
1-2 members	47	53	582
3 members	51	49	226
4 members	56	44	225
5 or more members	57	42	237
Family composition:			
Adults only	48	52	622
Have children under 20	55	45	658

Question 13b: "Why doesn't this product appeal to you?" (Asked only of respondents who said they would not be willing to try tomato powder.)

Reasons	U.S. total
	<u>Percent</u>
Don't like or use powdered foods; prefer other forms	24
Taste	19
Would not like taste (unspecified)	9
Products made from powder (e.g., paste, sauce, juice) would not taste as good as products already available	5
Other taste mentions	5
No need for this type of product; satisfied with existing product	18
Doesn't sound appealing, appetizing	13
Don't like or use tomato products	7
Too much work to prepare	6
Would not be nutritious	5
Would be too expensive	3
Don't like to try new products	3
May contain undesirable preservatives, additives	3
Other mentions	10
Don't know or no answer	1
	<u>Number</u>
Cases	622
Average responses per case	1.12

Question 13c: "What is it about this product idea that appeals to you?" (Asked only of respondents who said they would try tomato powder.)

Reasons	U.S. total
	<u>Percent</u>
Convenience	61
Easy to store; space saver	25
Easy to prepare	18
Would have on hand if needed	13
Quick to prepare	11
Would keep well; would not spoil	5
Convenient (unspecified)	4
Easy to transport	2
Could be used in many ways; versatile product	21
Could be used for specific dish or dishes	14
Would be no waste; could prepare amount needed	11
Less expensive; would not have to purchase other products	9
Like to try new products	7
Like or use tomato products	6
Taste	4
Would like the taste	3
Other taste mentions	2
Like or use powdered foods	2
Sounds appealing, appetizing	1
Other mentions	4
	<u>Number</u>
Cases	655
Average responses per case	2.29

Questions 13d,e: "How sure are you that you would try it?" "Assuming the product is satisfactory, do you think you would use it regularly or just once in a while?" (Asked only of respondents who said they would try tomato powder.)

Respondent characteristics	How sure				How often			Cases
	Absolutely sure	Quite sure	A little doubtful	No answer	Regularly	Once in a while	No answer	
	----- Percent -----							Number
U.S. total	42	45	12	1	63	36	1	655
Community size:								
Metro areas--1 million and over	43	43	14	*	66	34	*	235
Other metro	41	45	12	2	61	37	2	293
Nonmetro	43	47	8	2	61	37	2	127
Homemaker's education:								
Grammar school or less	42	45	12	1	57	42	1	89
Some high school	47	46	7	1	68	31	1	118
High school graduate	43	41	14	3	63	34	3	240
Some college or more	38	48	13	1	61	39	1	198
Region:								
Northeast	45	40	14	1	60	39	1	128
North Central	45	40	15	1	64	35	1	179
South	39	49	10	2	64	34	2	230
West	41	49	9	1	61	38	1	118
Homemaker's age:								
Under 25	29	60	11	0	57	43	0	87
25-34	40	42	16	2	62	36	2	129
35-44	42	46	12	0	70	30	0	125
45-64	47	41	11	2	62	36	2	224
65 and over	44	44	10	1	59	40	1	81
Family income:								
Under \$6,000	45	42	11	2	61	37	2	167
\$6,000-\$9,999	44	43	11	1	60	39	1	145
\$10,000-\$14,999	41	44	14	1	67	32	1	191
\$15,000 and over	39	48	12	1	62	36	1	137
Family size:								
1-2 members	42	44	12	1	61	38	1	273
3 members	37	48	13	2	57	41	2	115
4 members	44	42	12	2	70	29	2	125
5 or more members	44	46	10	1	64	35	1	136
Family composition:								
Adults only	44	42	13	2	59	39	2	296
Have children under 20	41	47	11	1	65	34	1	359

\* Less than 1 percent.

Question 14a: "Have you or have you not served tomato juice to your family in the past 12 months?"

Respondent characteristics	Have served	Have not served	No answer	Cases
	----- Percent -----			Number
U.S. total	77	20	3	2,600
Community size:				
Metro areas--1 million and over	77	19	4	981
Other metro	77	20	2	1,072
Nonmetro	78	18	3	547
Homemaker's education:				
Grammar school or less	72	25	3	448
Some high school	79	18	3	441
High school graduate	75	22	3	972
Some college or more	83	13	3	695
Region:				
Northeast	75	22	3	617
North Central	81	16	3	741
South	76	21	3	838
West	77	18	5	404
Homemaker's age:				
Under 25	69	25	6	252
25-34	79	19	2	491
35-44	80	18	2	513
45-64	80	17	3	899
65 and over	72	24	4	425
Family income:				
Under \$6,000	72	24	4	763
\$6,000-\$9,999	77	20	3	596
\$10,000-\$14,999	80	18	2	702
\$15,000 and over	83	14	3	491
Family size:				
1-2 members	76	21	3	1,168
3 members	78	20	2	452
4 members	79	18	3	440
5 or more members	79	18	3	512
Family composition:				
Adults only	76	20	3	1,251
Have children under 20.	78	19	3	1,349

Question 14b: "The ideal tomato juice for my family should be in this form:"

Form	U.S. total	Have served	Have not served
	----- <u>Percent</u> -----		
Ready to serve-- no need to add water	91	92	87
Frozen concentrate-- just add water	5	4	7
Instant powder-- just add water	3	3	2
No answer	1	*	4
	----- <u>Number</u> -----		
Cases	2,600	2,011	507

\* Less than 1 percent.

Question 14c: "The ideal tomato juice for my family should contain:"

Contents	U.S. total	Have served	Have not served
<p>The same amount of vitamins contained in the product on the market now</p> <p>An added amount of vitamins to supply a day's vitamin needs in an 8-ounce glass</p> <p>No answer</p>	----- <u>Percent</u> -----		
	52	52	53
	45	46	42
Cases	----- <u>Number</u> -----		
	2,600	2,011	507

Question 14d: "The ideal tomato juice for my family should should appear:"

Appearance	U.S. total	Have served	Have not served
	----- <u>Percent</u> -----		
Red in color, but <u>not</u> clear--like the <u>product</u> on the market now	87	88	82
Red in color, but clear--like cranberry juice	11	11	14
No answer	1	1	4
	----- <u>Number</u> -----		
Cases	2,600	2,011	507



Question 14e: "The ideal tomato juice for my family should contain:"

Contents	U.S. total	Have served	Have not served
	----- <u>Percent</u> -----		
The same amount of calories contained in the product on the market now	71	72	69
Fewer calories than in the product on the market now	19	19	18
More calories than in the product on the market now	8	8	8
No answer	2	1	5
	----- <u>Number</u> -----		
Cases	2,600	2,011	507

Question 15a: "Have you bought any canned tomatoes (whole or stewed) in the past 12 months or not?"

Respondent characteristics	Have bought	Have not bought	Cases
	----- Percent -----	-----	Number
U.S. total	77	23	2,600
Community size:			
Metro areas--1 million and over	82	18	981
Other metro	80	20	1,072
Nonmetro	64	36	547
Homemaker's education:			
Grammar school or less	72	28	448
Some high school	76	24	441
High school graduate	77	23	972
Some college or more	82	18	695
Region:			
Northeast	82	18	617
North Central	71	29	741
South	76	24	838
West	84	16	404
Homemaker's age:			
Under 25	69	31	252
25-34	83	17	491
35-44	81	19	513
45-64	79	21	899
65 and over	68	32	425
Family income:			
Under \$6,000	69	31	763
\$6,000-\$9,999	77	23	596
\$10,000-\$14,999	81	19	702
\$15,000 and over	85	15	491
Family size:			
1-2 members	73	27	1,168
3 members	77	23	452
4 members	83	17	440
5 or more members	82	18	512
Family composition:			
Adults only	74	26	1,251
Have children under 20	80	20	1,349

Question 15b: "Why don't you buy canned tomatoes?" (Asked only if not reported buying canned tomatoes in the 12 months prior to interviewing.)

Reasons	U.S. total
	<u>Percent</u>
Can or freeze own tomatoes	47
Prefer to use fresh tomatoes	16
Taste	15
Doesn't taste as good as fresh	6
Don't like the taste (unspecified)	4
Too much acid	4
Tinny taste; taste like container	2
Too bitter	1
Prefer to use other tomato products for cooking	9
Don't use or cook with tomatoes; use only occasionally	6
All or some family members would not eat it	5
Too expensive	4
Texture is too soft, mushy	3
Other mentions	10
	<u>Number</u>
Cases	588
Average responses per case	1.23

Question 15c: "What are your main reasons for buying canned tomatoes rather than fresh tomatoes?"  
 (Asked only if reported buying canned tomatoes in the 12 months prior to interviewing.)

Reasons	U.S. total
	<u>Percent</u>
Convenience	52
Easy to prepare	31
Can keep on hand when needed	9
Easy to store; space saver	8
Would keep well; would not spoil	8
Quick to prepare	6
Convenient (unspecified)	4
Use for specific dish or dishes	39
Cheaper than fresh tomatoes	31
Taste	19
Like the taste (unspecified)	10
Tastes better than out-of-season fresh tomatoes	8
Other taste mentions	1
Available year-round in stores; not seasonal	15
Use canned for cooking	14
Can be used in many ways; versatile product	13
Cheaper than fresh tomatoes that are out of season	9
No waste; can prepare amount needed	2
No need to add seasoning; already seasoned	2
Nutritious	1
Like appearance (e.g. color, shape)	1
Texture	1
Other mentions	5
	<u>Number</u>
Cases	2,011
Average responses per case	2.17

Question 15d: "What, if anything, don't you like so well about canned tomatoes?"  
 (Asked only if reported buying canned tomatoes in the 12 months prior to inter-  
 viewing.)

Reasons	U.S. total
	<u>Percent</u>
Nothing disliked	68
Taste	12
Doesn't taste like fresh tomatoes	5
Too much acid	2
Tinny taste; taste like can	2
Tasteless, bland	1
Too bitter, sour	1
Dislike the taste (unspecified)	1
Other taste mentions	1
Waste materials in cans	6
Cans contain too much juice, water--not enough tomato	5
Cannot be used in salads	3
Texture is too mushy, soft	3
Quality varies among brands	2
Appearance not appetizing, appealing	1
Not nutritious	1
Other mentions	7
Don't know or no answer	2
	<u>Number</u>
Cases	2,011
Average responses per case	0.43

Question 16: "Which statement on this card best describes how often canned tomatoes have been used in this household in the past 12 months?" (Asked only if reported buying canned tomatoes in the 12 months prior to interviewing.)

Respondent characteristics	2-3 times a month or more	About once a month	Less than once a month	Cases
	----- Percent -----			Number
U.S. total	75	15	10	2,011
Community size:				
Metro areas--1 million and over	73	16	10	801
Other metro	73	16	10	861
Nonmetro	82	9	9	349
Homemaker's education:				
Grammar school or less	80	10	10	324
Some high school	78	14	8	334
High school graduate	74	16	10	749
Some college or more	72	17	11	568
Region:				
Northeast	74	14	11	504
North Central	75	15	9	527
South	78	14	8	639
West	70	18	12	341
Homemaker's age:				
Under 25	65	19	15	175
25-34	74	15	10	407
35-44	77	14	9	416
45-64	76	15	8	711
65 and over	75	14	11	287
Family income:				
Under \$6,000	75	14	10	530
\$6,000-\$9,999	78	13	8	461
\$10,000-\$14,999	76	15	8	568
\$15,000 and over	71	17	12	415
Family size:				
1-2 members	72	17	11	856
3 members	73	16	10	350
4 members	74	14	11	367
5 or more members	82	11	7	419
Family composition:				
Adults only	73	17	10	927
Have children under 20	77	13	9	1,084

Question 17a: ". . . In which of these ways are canned tomatoes used in this household? Any other ways?" (Asked only if reported buying canned tomatoes in the 12 months prior to interviewing.)

Respondent characteristics	Stews	Soups	Sauces	Meat loaf	Casseroles	Side dishes	Salads	Snacks	Cases
	----- Percent -----								
	----- Number -----								
U.S. total	72	68	62	57	56	54	19	15	2,011
Community size:									
Metro areas--1 million and over	71	62	67	54	55	52	16	11	801
Other metro	72	71	60	59	56	56	20	17	861
Nonmetro	73	76	54	58	59	56	27	19	349
Homemaker's education:									
Grammar school or less	73	82	52	64	40	55	20	15	324
Some high school	71	74	57	57	50	56	23	20	334
High school graduate	71	64	62	56	58	49	17	14	749
Some college or more	72	63	69	52	66	61	19	13	568
Region:									
Northeast	62	52	76	49	53	50	13	8	504
North Central	74	77	57	56	63	62	22	16	527
South	76	78	50	65	50	53	23	19	639
West	75	62	70	52	62	51	17	14	341
Homemaker's age:									
Under 25	64	57	62	55	51	46	20	20	175
25-34	71	63	69	48	61	44	18	14	407
35-44	74	64	68	58	59	52	19	14	416
45-64	74	76	61	62	59	59	19	16	711
65 and over	68	72	45	55	42	67	23	11	287
Family income:									
Under \$6,000	72	74	52	62	44	55	23	16	530
\$6,000-\$9,999	72	70	62	59	57	56	18	17	461
\$10,000-\$14,999	73	67	63	55	62	53	19	14	568
\$15,000 and over	70	61	73	51	64	55	16	12	415
Family size:									
1-2 members	71	69	55	59	52	59	21	15	856
3 members	73	71	68	58	54	54	21	16	350
4 members	71	63	68	51	63	50	17	12	367
5 or more members	74	70	65	57	61	49	18	16	419
Family composition:									
Adults only	70	69	55	59	51	60	20	15	927
Have children under 20	73	68	67	55	60	50	19	15	1,084

Question 17b: "In what one way are canned tomatoes used most often?" (Asked only if reported using canned tomatoes in more than one way in the 12 months prior to interviewing.)

Respondent characteristics	Sauces	Soups	Stews	Side dishes	Casseroles	Meat loaf	Salads	Snacks	Cases
	Percent								
U.S. total	27	19	17	15	15	4	2	1	2,011
Community size:									
Metro areas--1 million and over	33	14	15	16	15	4	2	*	801
Other metro	26	23	18	14	13	4	2	1	861
Nonmetro	15	23	19	14	18	5	4	2	349
Homemaker's education:									
Grammar school or less	16	30	20	17	6	5	2	1	324
Some high school	22	23	18	16	10	7	3	1	334
High school graduate	31	18	17	12	16	4	2	1	749
Some college or more	31	13	15	16	20	3	2	1	568
Region:									
Northeast	49	9	11	15	9	4	2	*	504
North Central	15	24	17	17	21	3	2	*	527
South	16	29	21	13	10	7	4	1	639
West	31	10	20	14	21	2	2	1	341
Homemaker's age:									
Under 25	26	18	15	13	19	6	2	3	175
25-34	33	18	16	9	17	5	2	*	407
35-44	33	15	16	10	19	5	3	*	416
45-64	25	22	16	17	14	3	2	1	711
65 and over	13	23	24	27	6	5	2	0	287
Family income:									
Under \$6,000	18	27	20	18	8	5	3	1	530
\$6,000-\$9,999	26	19	18	15	14	4	3	1	461
\$10,000-\$14,999	30	18	15	12	19	4	2	1	568
\$15,000 and over	34	12	15	15	18	3	2	*	415
Family size:									
1-2 members	20	21	18	20	13	4	2	1	856
3 members	29	22	17	12	11	5	3	*	350
4 members	35	13	17	10	19	3	3	1	367
5 or more members	32	20	15	11	17	4	2	1	419
Family composition:									
Adults only	20	21	18	20	12	4	3	1	927
Have children under 20	32	18	16	10	17	4	2	1	1,084

\* Less than 1 percent.



Question 17c: "Within the past 12 months which, if any, of the following products have you used in (dish used most often) in place of canned tomatoes?" (Asked only if reported buying canned tomatoes in the 12 months prior to interviewing.)

Products	U.S. total
	<u>Percent</u>
Tomato sauce	43
Tomato paste	31
Fresh tomatoes	26
Tomato soup	23
Tomato juice	22
Tomato puree	18
Instant sauce mix	3
Other products	1
Nothing	12
No answer	1
	<u>Number</u>
Cases	2,011

Cross tabulations of respondent characteristics

Background information--relationships among characteristics used as standard cross tabulations.<sup>1/</sup>

Respondent characteristics	Community size			Homemaker's education				Cases
	Metro areas--1 million and over	Other metro	Nonmetro	Grammar school or less	Some high school	High school graduate	Some college or more	
	----- Percent -----							Number
U.S. total	38	41	21	17	17	37	27	2,600
Community size:								
Metro areas--1 million and over	100			12	15	41	30	981
Other metro		100		18	16	35	28	1,072
Nonmetro			100	24	22	35	17	547
Homemaker's education:								
Grammar school or less	27	43	30	100				448
Some high school	33	40	27		100			441
High school graduate	41	39	20			100		972
Some college or more	43	43	14				100	695
Region:								
Northeast	48	43	9	16	16	42	25	617
North Central	38	36	26	17	18	40	23	741
South	23	48	29	22	19	33	25	838
West	52	34	14	10	13	36	39	404
Homemaker's age:								
Under 25	36	40	24	4	18	44	32	252
25-34	41	42	17	3	16	44	36	491
35-44	41	40	19	12	13	45	29	513
45-64	38	43	19	20	18	36	24	899
65 and over	28	41	31	41	19	19	16	425
Family income:								
Under \$6,000	26	42	32	36	23	26	13	763
\$6,000-\$9,999	34	43	23	16	19	41	22	596
\$10,000-\$14,999	42	42	16	7	16	47	29	702
\$15,000 and over	52	38	10	3	8	38	50	491
Family size:								
1-2 members	36	41	23	24	17	31	26	1,168
3 members	37	45	18	13	17	41	27	452
4 members	44	37	19	10	14	43	32	440
5 or more members	38	41	21	12	20	43	24	512
Family composition:								
Adults only	36	41	23	25	16	31	26	1,251
Have children under 20	40	40	20	10	18	43	28	1,349

<sup>1/</sup> Percentages may add to less than 100% because some characteristics were not ascertained for some respondents.

Continued

Cross tabulations of respondent characteristics--Continued

Background information--relationships among characteristics used as standard cross tabulations.<sup>1/</sup>

Respondent characteristics	Region				Homemaker's age					Cases
	North-east	North Central	South	West	Under 25	25-34	35-44	45-64	65 and over	
	----- Percent -----									Number
U.S. total	24	29	31	16	10	19	20	35	16	2,600
Community size:										
Metro areas--1 million and over	30	29	20	21	9	20	22	35	12	981
Other metro	25	25	37	13	9	19	19	35	16	1,072
Nonmetro	10	35	44	11	11	15	17	32	24	547
Homemaker's education:										
Grammar school or less	21	29	41	9	2	3	13	41	40	448
Some high school	22	31	35	12	10	18	16	37	18	441
High school graduate	27	30	28	15	11	22	24	34	8	972
Some college or more	23	24	30	23	12	25	21	31	10	695
Region:										
Northeast	100				6	22	19	35	16	617
North Central		100			9	19	23	32	17	741
South			100		12	17	17	35	17	838
West				100	12	17	20	37	13	404
Homemaker's age:										
Under 25	15	25	41	19	100					252
25-34	28	29	29	14		100				491
35-44	23	33	28	16			100			513
45-64	24	26	33	17				100		899
65 and over	24	30	34	12					100	425
Family income:										
Under \$6,000	19	26	41	14	10	9	10	32	38	763
\$6,000-\$9,999	22	31	33	14	15	18	19	35	12	596
\$10,000-\$14,999	28	29	28	15	7	29	24	34	4	702
\$15,000 and over	26	29	25	20	5	21	30	38	4	491
Family size:										
1-2 members	23	28	33	16	9	8	7	43	33	1,168
3 members	27	27	33	13	17	22	14	39	6	452
4 members	22	29	30	19	10	34	27	26	3	440
5 or more members	24	30	31	15	3	28	48	20	1	512
Family composition:										
Adults only	24	28	33	15	7	7	6	47	33	1,251
Have children under 20	23	29	32	16	12	30	33	23	1	1,349

<sup>1/</sup> Percentages may add to less than 100% because some characteristics were not ascertained for some respondents.

Continued

Cross tabulations of respondent characteristics--Continued

Background information--relationships among characteristics used as standard cross tabulations.<sup>1/</sup>

Respondent characteristics	Family income				Family size				Family composition		Cases
	Under \$6,000	\$6,000 to \$9,999	\$10,000 to \$14,999	\$15,000 and over	1-2 members	3 members	4 members	5 or more members	Adults only	Have children under 20	
	----- Percent -----									Number	
U.S. total	29	23	27	19	45	17	17	20	48	52	2,600
Community size:											
Metro areas--1 million and over	20	21	30	26	42	17	20	20	46	54	981
Other metro	30	24	28	18	45	19	15	20	49	51	1,072
Nonmetro	45	25	20	9	49	15	15	20	52	48	547
Homemaker's education:											
Grammar school or less	62	22	11	3	63	13	10	14	70	30	448
Some high school	39	25	25	8	44	17	14	23	46	54	441
High school graduate	20	25	34	19	37	19	20	23	40	60	972
Some college or more	14	19	29	35	44	17	20	18	46	54	695
Region:											
Northeast	24	21	32	21	43	20	16	20	49	51	617
North Central	27	25	28	19	45	16	17	21	47	53	741
South	36	24	24	15	46	18	16	19	49	51	838
West	27	21	26	24	46	15	20	19	47	53	404
Homemaker's age:											
Under 25	29	37	21	10	43	31	17	5	35	65	252
25-34	14	22	41	21	18	20	31	29	17	83	491
35-44	14	22	33	29	16	13	23	48	14	86	513
45-64	27	23	27	21	56	20	13	11	65	35	899
65 and over	69	17	7	5	89	7	3	1	96	4	425
Family income:											
Under \$6,000	100				69	12	8	10	67	33	763
\$6,000-\$9,999		100			46	19	17	17	46	54	596
\$10,000-\$14,999			100		30	20	21	27	35	65	702
\$15,000 and over				100	29	19	25	27	39	61	491
Family size:											
1-2 members	45	23	18	12	100				92	8	1,168
3 members	21	25	31	21		100			28	72	452
4 members	14	24	33	28			100		8	92	440
5 or more members	15	20	38	26				100	2	98	512
Family composition:											
Adults only	41	22	20	15	86	10	3	1	100		1,251
Have children under 20	19	24	34	22	7	24	30	37		100	1,349

<sup>1/</sup> Percentages may add to less than 100% because some characteristics were not ascertained for some respondents.





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