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FARM CREDIT ADMINISTRATION
COOPERATIVE DIVISION
WASHINGTON, D. C.

**SURVEY OF CONSUMER BUYING AND USE HABITS AND
ATTITUDES TOWARD WALNUTS**

By

Harry C. Hensley

And

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SURVEY OF CONSUMER BUYING AND USE HABITS AND
ATTITUDES TOWARD WALNUTS

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OCT 9 1939

The California Walnut Growers Association is a federation of 39 cooperative walnut-marketing associations which had in 1935 a total of 7,806 grower-members and which handled 71,746,000 pounds of merchantable walnuts. 2/

Confronted with increasing domestic production, declining walnut consumption, and a large carry-over, the association requested the Cooperative Division of the Farm Credit Administration to study its marketing policies, particularly its advertising, sales promotion, and pricing policies, with a view to ascertaining their results, so far as possible, and determining what changes in these policies, if any, were desirable. The results of this study are set forth in a bulletin entitled "Marketing Policies of the California Walnut Growers Association" now in press.

To be sound, a marketing program for any product must be fashioned in accordance with consumers' buying habits, use habits, and attitudes. One of the phases of the study, therefore, pertained to consumer buying and use habits and attitudes toward walnuts. The present report covers in greater detail than was possible in the bulletin the results of a consumer survey, in which personal interviews were had with 3,133 housewives in 35 cities and towns in the United States.

1/ Acknowledgment is made of the assistance of the California Walnut Growers Association and its advertising agency which conducted the survey, in making available for analysis the data included in this report.

2/ Walnut as used in this report refers to the Persian walnut (*Juglans regia*) more commonly known as the English walnut.

Consumer habits and attitudes should largely determine the types and number of tradesmen to be used in distribution of the product, the branding policy to be followed, the selling approach, and the amount of advertising to be used; the selling appeals to be made, the advertising media employed, and the time to publish.

No survey of consumer habits or attitudes had been made by the California Walnut Growers Association or its advertising agency for some years. While the association had a general appreciation of consumers' habits and attitudes, it was believed that a survey would be of value, not only in checking upon past performance, but also in determining future selling and advertising policies.

Accordingly, the association management arranged to have its advertising agency conduct an extensive consumer study. The association and the agency made available for analysis the data from this survey and the most significant findings therefrom are included in this report.

SUMMARY

The walnut has been the most widely used and most widely preferred tree nut when the country as a whole is considered, but other nuts, particularly pecans, have offered important direct competition. Pecans definitely have led in the South, and have gained a stronghold in territories adjacent to the South, particularly the Middle West.

As might have been expected, walnuts were found to have been purchased in greater quantity by the higher-income groups, but to a surprising extent among lower-income groups.

Walnuts have been used more for cooking and menu purposes than for eating out of the shell. The frequent placing of a bowl of nuts for eating out of the shell was not found to be a common practice in American homes, except on special holiday occasions. Cooking and menu use of walnuts, however, has been very widespread. Only about 6 percent of those interviewed said that they never used walnuts for cooking, while 60 percent stated that they used walnuts for cooking rather frequently; the remaining 34 percent indicated infrequent use.

Among the more important cooking uses, inclusion of walnuts in cakes and cookies ranked first, salads a strong second, while desserts, candies, breads, rolls, and muffins followed in importance.

A majority of housewives were found to prefer purchase of nuts in the shell for cooking purposes, although approximately one-third stated that they were buying shelled nuts for cooking. Another 8 percent said that they bought part of their walnuts in this way.

A high degree of familiarity with the Diamond brand has been built up and most of those interviewed remembered seeing walnuts advertised.

CONSTRUCTION OF THE QUESTIONNAIRE

Care was given to the construction of a questionnaire (appendix) which would elicit from those interviewed a true picture of their buying and use habits and attitudes toward the product. The preparation of such a questionnaire is difficult. First of all, constructive imagination must be employed to determine what habits and attitudes may exist, information about which would be of value. Next, great care must be exercised to state questions in a form that consumers can and will answer, and to arrange questions so as to obtain cooperation from the interviewee. Where facts are being sought, they must be facts about which the consumer can and will supply accurate information. Questions relating to opinions must be clearly differentiated from questions of fact.

Opinion questions are likely to be fully satisfactory only when the consumer has definitely formed attitudes arising from experience; otherwise answers are likely to be vague and meaningless. In questions both of fact and opinion, care must be taken not to suggest an answer. Moreover, "face-saving" questions should be avoided. In every case questions should be so framed as to be readily understood and interpreted. Enough questions must be asked to get a clear picture of habits and attitudes, yet the questionnaire must not be so long as to fatigue the person interviewed and cause lack of cooperation. These are only some of the more important considerations to be observed.

The questionnaire employed in the survey represents the joint effort of the officers of the association, advertising-agency executives, and the investigators in charge of the study. The individual questions are repeated in the summarization of data in the pages that follow. As is sound practice in all cases, it also represents the results of a preliminary testing in the field. The agency tried out two tentative questionnaires among housewives in New York to determine whether they clearly understood the questions as asked, whether they could and would answer them, and whether the data being obtained would be of significance. A number of changes were made in the questionnaire as a result of this preliminary testing.

METHOD OF GATHERING DATA

The questionnaire was presented through personal interviews which insured answers to all questions and made possible the control by income groups, race, and sex of the sample of consumers interviewed.

The interviews were conducted in the New York area and in cities and towns near its seven branch offices by the permanent personnel of the advertising agency. In other areas investigators of a marketing research organization were utilized. In every instance trained consumer interviewers were employed who had the special instructions shown with the questionnaire in the Appendix, page 34.

CHARACTER OF THE SAMPLE

In all, 3,133 housewives were interviewed in the cities and towns listed in table 1. The distribution of interviews within these communities was intentionally weighted in favor of the higher-income levels, as shown in table 2. The ages of housewives interviewed, as estimated by interviewers, are shown in table 3.

From the standpoint of distribution of interviews by income, by size of city, and by number of total interviews in each area, there is not in the total sample a balance to represent a random selection of the total population. It must be recognized that this lack of balance in the total sample may affect somewhat the accuracy of the picture presented by the tables. A corrective might have been formulated by weighting the replies of the various classifications according to their proportion in the population as a whole. This procedure was not followed, however, after a few test computations indicated that the final picture obtained by this laborious process would not be greatly different from the enumeration of interviews as gathered.

Another condition to be noted in interpreting these data is the small number of interviews taken in certain areas. The distribution of replies from these areas may be subject to a large degree of error solely from the operation of the laws of chance in the random selection of the people interviewed. ^{3/} The smaller the number of interviews, the greater the chance that the group may fail truly to portray the community they represent.

^{3/} No attempt has been made to determine the degree of probable error in the various breakdowns of data through computation of the standard deviation or the standard deviation of differences between percentages of replies. In the interpretation of data, however, allowance has been made not only for size of sample but also for lack of balance in sample. For those interested in inquiring further into questions of sampling in market research work, see T. H. Brown, The Use of Statistical Technique in Certain Problems of Market Research, Harvard University, Division of Research, Business Research Studies No. 12; Size of Sample in Market Surveys, National Marketing Review, Winter, 1935; and Neil H. Borden, Some Problems in Sampling in Consumer Surveys, American Marketing Journal, January 1936.

Table 1. Geographic distribution of interviews with consumers

| City and geographic division | Population of city | Inter-views held | Percent-age of total in-terviews | Percentage of 1930 U.S. population in geographic division |
|------------------------------|--------------------|------------------|----------------------------------|---|
| <u>New England:</u> | | | | |
| Boston, Mass. | 781,188 | 250 | | |
| Wallingford, Conn. | 11,170 | 50 | | |
| Lunenburg, Mass. | 1,923 | 25 | | |
| Danby, Vt. | 1,070 | 25 | | |
| Bloomfield, Conn. | 3,247 | 25 | | |
| Smithfield, R. I. | 3,967 | 25 | | |
| Total | | 400 | 12.77 | 6.7 |
| <u>Middle Atlantic:</u> | | | | |
| New York, N. Y. | 6,930,446 | 350 | | |
| Mount Vernon, N. Y. | 61,499 | 50 | | |
| Orange, N. J. | 35,399 | 50 | | |
| Reading, Pa. | 111,171 | 50 | | |
| Baldwinsville, N. Y. | 3,845 | 50 | | |
| Clifton Heights, Pa. | 5,057 | 50 | | |
| Wilkinsburg, Pa. | 29,639 | 50 | | |
| Total | | 650 | 20.75 | 21.4 |
| <u>Middle West:</u> | | | | |
| Chicago, Ill. | 3,376,438 | 266 | | |
| Cleveland, Ohio | 900,429 | 202 | | |
| South Bend, Ind. | 104,193 | 100 | | |
| Monroe, Mich. | 18,110 | 50 | | |
| Frankfort, Ind. | 12,196 | 50 | | |
| Wichita, Kans. | 111,110 | 75 | | |
| Lincoln, Nebr. | 75,933 | 50 | | |
| Des Moines, Iowa | 142,559 | 100 | | |
| Galion, Ohio | 7,674 | 50 | | |
| Stillwater, Minn. | 7,173 | 50 | | |
| Anoka, Minn. | 4,851 | 50 | | |
| Hopkins, Minn. | 3,834 | 50 | | |
| Iowa City, Iowa | 15,340 | 25 | | |
| Indianola, Iowa | 3,468 | 25 | | |
| West Liberty, Iowa | 1,679 | 25 | | |
| Total | | 1,168 | 37.28 | 31.4 |
| <u>South:</u> | | | | |
| Atlanta, Ga. | 270,366 | 119 | | |
| Houston, Texas | 292,352 | 177 | | |
| Decatur, Ga. | 13,276 | 59 | | |
| Little Rock, Ark. | 81,679 | 50 | | |
| Total | | 405 | 12.92 | 30.8 |
| <u>Mountain:</u> | | | | |
| Denver, Colo. | 287,861 | 109 | 3.48 | 3.0 |
| <u>Pacific:</u> | | | | |
| San Francisco, Calif. | 634,394 | 276 | | |
| Seattle, Wash. | 365,583 | 125 | | |
| Total | | 401 | 12.80 | 6.7 |
| United States total | 14,710,139 | 3,133 | 100.0 | 100.0 |

Table 2. Percentage distribution of interviews, by income groups

| Income group | Number of interviews | Percentage of all interviews |
|-----------------------|----------------------|------------------------------|
| A (over \$5,000) | 673 | 21.5 |
| B (\$2,500 - \$5,000) | 1,603 | 51.2 |
| C (under \$2,500) | 857 | 27.3 |
| Total | 3,133 | 100.0 |

Table 3. Age classification of housewives interviewed

| Age | Number of housewives | Percentage of total |
|------------------|----------------------|---------------------|
| Under 20 | 29 | .9 |
| 21 - 30 | 652 | 20.8 |
| 31 - 40 | 1,158 | 37.0 |
| 41 - 50 | 764 | 24.4 |
| Over 50 | 467 | 14.9 |
| Age not reported | 63 | 2.0 |
| Total | 3,133 | 100.0 |

The replies given to any question in the tables that follow should be regarded not as representing a picture of the housewives of the country as a whole but rather of a selection of housewives weighted somewhat in favor of those with higher incomes. Moreover, the degree of error in some tables may be considerable, first because of the small number of interviews involved, and second because of a lack of proper balance in the sample. The data are significant if interpreted with these reservations in mind.

DATE OF THE SURVEY

The survey was conducted during the latter part of April 1935, a fact that should be kept in mind in interpreting the data. Walnuts are subject to seasonal purchase and use. In the fall months near the holiday period the consumption of walnuts is high and the eating of nuts from the shell is rather common, but in the spring months the use of nuts is less frequent. Ideally, two surveys should have been made but for various reasons it was decided to limit the survey to the one date.

QUESTIONS ASKED AND DATA OBTAINED

Question 1. What is your opinion of the food value of nuts?

On the whole, housewives were found to have a favorable attitude toward nuts. About 10 percent of those interviewed failed to respond to the question, thus indicating that they had no well-defined attitude one way or the other.

No significant differences were found in the attitudes of housewives in the various geographic sections as shown in table 4. Those in the South and on the Pacific Coast may have a slightly more favorable attitude than those in other sections, but considering the small number of interviews and the character of the sample, the differences indicated are not believed to be significant.

There was a wide scatter in the character of the responses interpreted as favorable to nuts, as shown in table 5. The most common view was that nuts were nutritious; approximately one-fifth of the favorable responses were in this category. The next largest grouping of answers interpreted by the tabulators as favorable was that nuts were "rich or fattening". There may be some doubt as to the proper interpretation of such responses, since this attitude may be closely related to the most common opinions tabulated as unfavorable, namely, "too fattening" and "hard to digest".

Table 4. Replies by geographic sections to the question: What is your opinion of the food value of nuts?

| Section | Favorable | | Unfavorable | | Uncertain | | Total replies |
|-----------------|-----------|---------|-------------|---------|-----------|---------|---------------|
| | No. | Percent | No. | Percent | No. | Percent | |
| New England | 348 | 86.6 | 17 | 4.2 | 37 | 9.2 | 402 |
| Middle Atlantic | 518 | 80.4 | 38 | 5.9 | 88 | 13.7 | 644 |
| Middle West | 944 | 81.4 | 44 | 3.8 | 171 | 14.8 | 1,159 |
| South | 375 | 93.1 | 7 | 1.7 | 21 | 5.2 | 403 |
| Pacific Coast | 367 | 91.5 | 28 | 7.0 | 6 | 1.5 | 401 |
| Mountain | 83 | 76.1 | 4 | 3.7 | 22 | 20.2 | 109 |
| Total | 2,635 | 84.5 | 138 | 4.4 | 345 | 11.1 | 3,118 |

Table 5. Classification of replies to the question: What is your opinion of the food value of nuts?

| Attitude and reason | Number of replies | Percentage of total |
|---------------------|-------------------|---------------------|
| <u>Favorable:</u> | | |
| Nutritious | 498 | 18.9 |
| Rich or fattening | 383 | 14.5 |
| Rich in vitamins | 45 | 1.7 |
| Miscellaneous | 1,709 | 64.9 |
| Total | 2,635 | 100.0 |
| <u>Unfavorable:</u> | | |
| Hard to digest | 46 | 33.3 |
| Too fattening | 20 | 14.5 |
| Little food value | 31 | 22.5 |
| Miscellaneous | 41 | 29.7 |
| Total | 133 | 100.0 |

Question 2. About how many pounds of nuts have you bought during the past month?

As may be noted from the instructions given to investigators, the question referred to all kinds of nuts other than peanuts. The data on purchases have been broken down by income, occupational, and geographic groups. It was realized that estimates by housewives of the quantity of nuts purchased, and the number of purchases made during the preceding month would not be accurate. In fact, the quantities given were undoubtedly overestimated. The approximate annual per capita consumption of nuts in recent years has been 2 pounds, or an average family consumption of about 8 pounds a year; yet the average of the estimates of the 3,079 housewives who replied to the question was 1.38 pounds for April, an off-season month.

Even if allowance were made for the fact that the sample of housewives interviewed had a bias toward the high-income groups, the quantity indicates an overestimate. The purpose of the question, however, was not to get an accurate idea of quantity consumed, but

rather, a rough differentiation of those who did not buy, of those who were small buyers, and of those who bought in appreciable volume. As shown in table 6, some 27 percent of the women interviewed stated that they had bought no nuts in the preceding month; nearly 40 percent stated that they had bought a pound; 20 percent had purchased not over 2 pounds; while only 15 percent indicated that they were really heavy users; that is, they had bought 3 pounds or more. These figures show that although an appreciable proportion was not buying in this spring period, yet the number of buyers of nuts was far greater than the seasonal movement of nuts in the wholesale trade indicated.

The percentages of those purchasing and the average quantity purchased varied somewhat in the various sections of the country (table 7). In view of the error involved in such estimates, however, the differences indicated are believed not to be significant.

Table 6. Classification of replies to the question: About how many pounds of nuts have you bought during the past month?

| Pounds purchased | Number of replies | Percentage of total replies | Approximate number of pounds purchased |
|------------------|-------------------|-----------------------------|--|
| None | 834 | 27.1 | |
| 1 | 1,193 | 38.3 | 1,193 |
| 2 | 606 | 19.7 | 1,212 |
| 3 | 222 | 7.2 | 666 |
| 4 | 114 | 3.7 | 456 |
| 5 | 55 | 1.8 | 275 |
| 6 | 15 | .5 | 90 |
| 7 | 4 | .1 | 28 |
| 8 | 11 | .3 | 88 |
| 9 | 1 | .0 | 9 |
| 10 and over | 24 | .8 | 240 |
| Total | 3,079 | 100.0 | 4,257 |

The total number of interviews was 3,133; in 54 interviews this question was not answered. The number of purchasers was 2,245, or 72.9 percent of the total number replying. The number of nonpurchasers was 834, or 27.1 percent of the number of persons replying.

Table 7. Classification by geographic sections of replies to the question: About how many pounds of nuts have you bought during the past month?

| Section | Replies received from purchasers | | Replies received from nonpurchasers | | Approximate number of pounds purchased | Average quantity purchased | |
|-----------------|----------------------------------|-----------------------|-------------------------------------|--|--|------------------------------|-------------------------------|
| | Number of replies | Percent- age of total | Number of replies | Percent- Total age of replies received | | Pounds per family purchasing | Pounds per family replying 1/ |
| New England | 259 | 65.6 | 136 | 34.4 | 557 | 2.15 | 1.41 |
| Middle Atlantic | 386 | 59.9 | 258 | 40.1 | 767 | 1.99 | 1.19 |
| Middle West | 988 | 82.5 | 209 | 17.5 | 1,636 | 1.66 | 1.37 |
| South | 268 | 78.8 | 72 | 21.2 | 557 | 2.08 | 1.64 |
| Mountain | 74 | 68.5 | 34 | 31.5 | 134 | 1.81 | 1.24 |
| Pacific Coast | 270 | 68.4 | 125 | 31.6 | 604 | 2.24 | 1.53 |
| Total | 2,245 | 72.91 | 834 | 27.09 | 3,079 | 1.90 | 1.38 |

1/ Includes nonpurchasers.

Table 8. Classification by nationalities of replies to the question: About how many pounds of nuts have you bought during the past month?

| National group | Replies received from purchasers | | Replies received from nonpurchasers | | Approximate number of pounds purchased | Average quantity purchased | |
|-------------------|----------------------------------|-----------------------|-------------------------------------|--|--|------------------------------|----------------------------|
| | Number of replies | Percent- age of total | Number of replies | Percent- Total age of replies received | | Pounds per family purchasing | Pounds per family replying |
| American | 1,676 | 72.2 | 646 | 27.8 | 3,112 | 1.9 | 1.3 |
| Jewish | 164 | 82.4 | 35 | 17.6 | 508 | 3.1 | 2.6 |
| Northern European | 237 | 78.2 | 66 | 21.8 | 332 | 1.4 | 1.1 |
| Central European | 25 | 58.1 | 18 | 41.9 | 47 | 1.9 | 1.1 |
| Southern European | 98 | 64.0 | 55 | 36.0 | 171 | 1.7 | 1.1 |
| All others | 45 | 76.3 | 14 | 23.7 | 88 | 2.0 | 1.5 |
| Total | 2,245 | 72.9 | 834 | 27.1 | 3,079 | 1.9 | 1.4 |

Principal Kinds of Nuts Purchased by Housewives in April, 1935

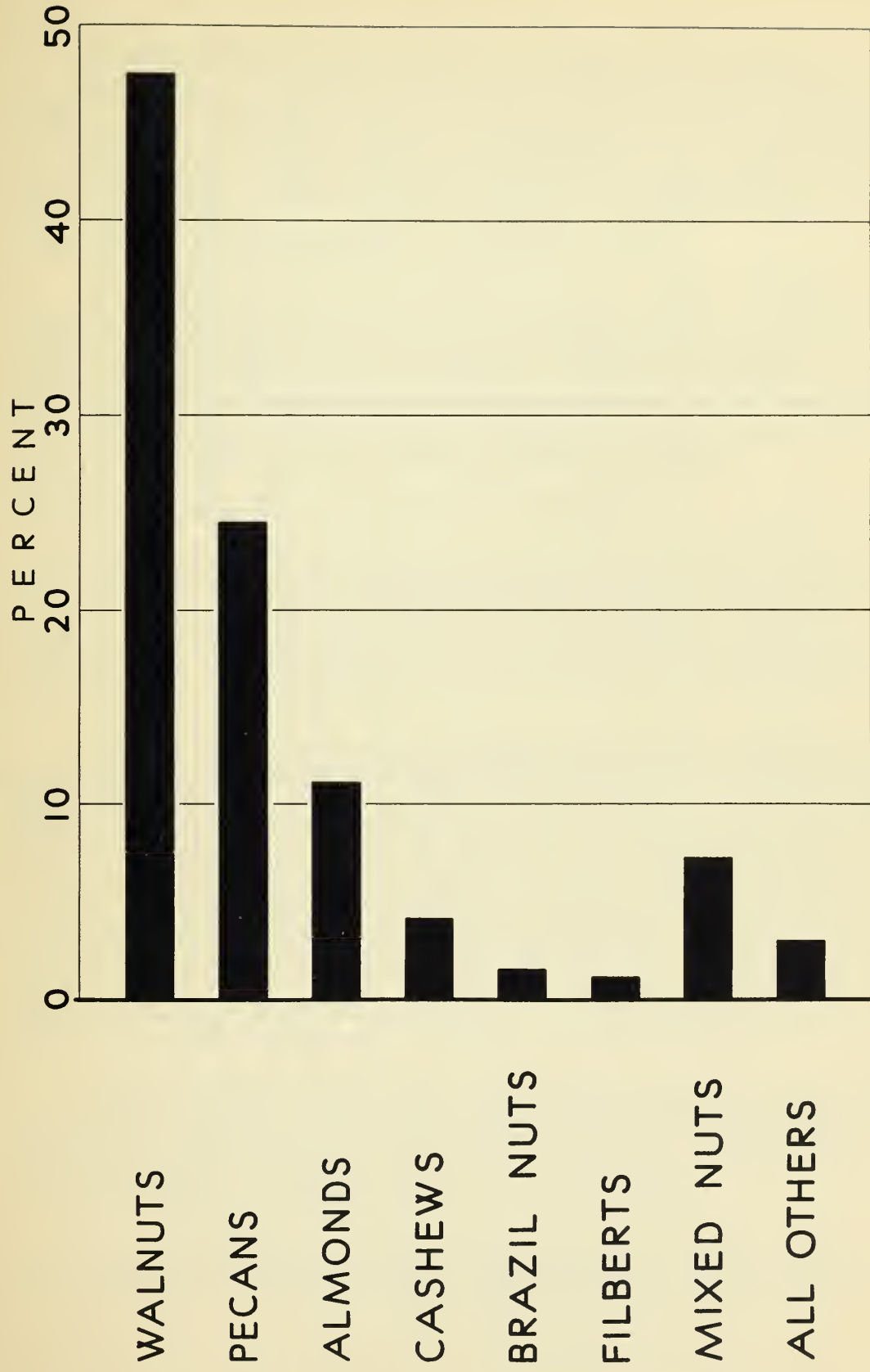


Figure 1. The relative importance of walnuts among other nuts, when judged by housewife purchases in April, 1935, is shown by the results of the consumer survey, which indicate that approximately one-half of the purchases named were walnuts, one-fourth were pecans, and one-tenth were almonds.

A breakdown by national groups or by groups according to national extraction (table 8) indicates that Jewish families, as had been thought, are heavy users of nuts. Both in the percentage of purchasers and in the estimates of quantity purchased we find the percentages of responses from Jewish housewives significantly higher than those from other groups. Such a finding confirms the judgment of the association in advertising in Jewish newspapers in the New York area in an attempt to secure preference for Diamond walnuts.

A breakdown of data by occupational groups (table 9) shows a downward progression in the number of purchases, and, to a lesser degree, in the average purchase, from the white-collar groups to the unskilled-labor groups. The differences indicated, however, are not great enough to be considered significant in the light of the probable statistical error. The lower-income groups appear to be more important users of nuts than had been supposed before the survey.

Question 2a. What kind of nuts have you bought?

By finding out specifically what nuts had been purchased, some light on the question of consumer preferences was obtained (table 10 and fig. 1). Approximately one-half of the purchases named were walnuts; approximately one-fourth pecans and one-tenth almonds, while the many other nuts accounted for only 17 percent of the purchases mentioned.

Although walnuts stand preeminently ahead of other nuts in quantity of purchases, pecans loom up in this picture as a very important competitor. In view of this fact, the tabulation of walnut and pecan purchases by geographic sections (table 11 and fig. 2) assumes a particular significance. It will be noted that in the South over 61 percent of nut purchases were of pecans as opposed to approximately 6 percent on the Pacific Coast and in New England. Moreover, pecans were mentioned in an appreciably higher percentage of instances in the Middle West and in the Mountain area than in other sections. A later field survey of the trade indicated that dealers or growers of pecans frequently truck their product into these areas and sell at prices which have an important effect on the nut market.

It may be noted further that in New England, the Middle Atlantic, and the Pacific Coast States, nuts other than walnuts and pecans loom appreciably larger than in the remaining sections. The reason for this difference is unknown. It may be accounted for through the greater importance of imported nuts in coastal States.

Other breakdowns of the replies to this question, not recorded here, show that approximately equal percentages of various racial

Housewife Purchases of Walnuts, Pecans, and All Other Nuts, by Areas, April, 1935

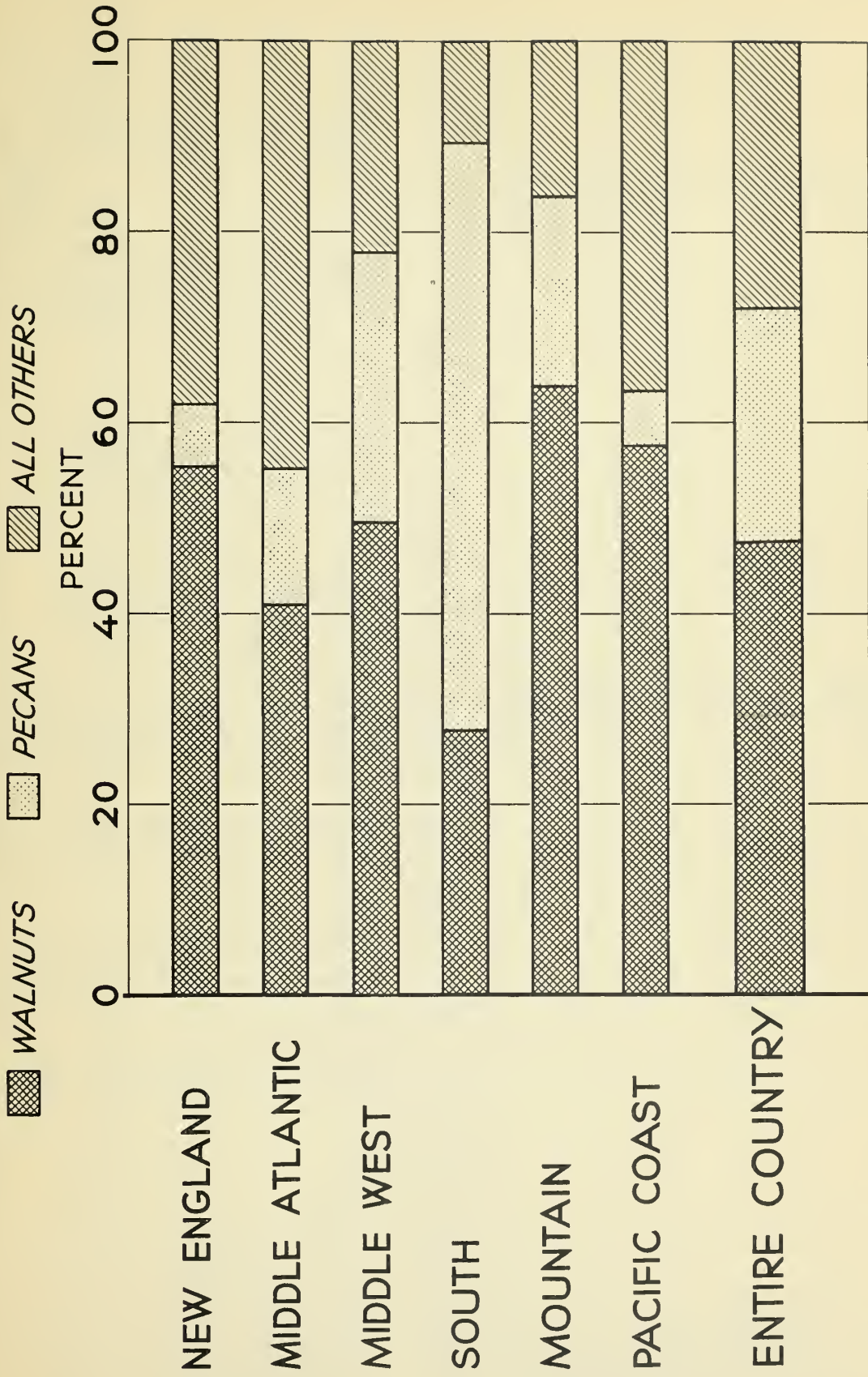


Figure 2. Pecans are the leading nut purchased by housewives in the South, while walnut purchases easily lead in all other areas and for the entire country, when judged by housewife purchases in April, 1935.

Table 9. Classification by occupational groups of replies to the question: About how many pounds of nuts have you bought during the past month?

| Occupational group | Replies received from purchasers | | Replies received from nonpurchasers | | Approximate number of pounds purchased | Average quantity purchased | |
|---------------------------|----------------------------------|-------------------------------|-------------------------------------|-------------------------------|--|------------------------------|----------------------------|
| | Number of replies | Percent- age of total replies | Number of replies | Percent- age of total replies | | Pounds per family purchasing | Pounds per family replying |
| | 787 | 77.5 | 229 | 22.5 | | 1.9 | 1.5 |
| Executive | 787 | 77.5 | 229 | 22.5 | 1,486 | 1.9 | 1.5 |
| Average, "white collar" | 750 | 74.0 | 264 | 26.0 | 1,463 | 2.0 | 1.4 |
| Skilled laborer | 325 | 70.3 | 137 | 29.7 | 631 | 1.9 | 1.4 |
| Unskilled laborer | 176 | 68.0 | 83 | 32.0 | 286 | 1.6 | 1.1 |
| Retired, or no occupation | 114 | 55.1 | 61 | 34.9 | 175 | 1.7 | 1.1 |
| Unemployed | 28 | 57.1 | 21 | 42.9 | 49 | 1.9 | 1.1 |
| Occupation unknown | 65 | 62.5 | 39 | 37.5 | 104 | 1.9 | 1.2 |
| Total | 2,245 | 72.9 | 834 | 27.1 | 3,079 | 1.9 | 1.4 |

Table 10. Tabulation of replies to the question: What kind of nuts have you bought?

| Kind of nut purchased | Replies received 1/ | Percentage of total |
|-----------------------|---------------------|---------------------|
| Walnuts | 1,757 | 47.5 |
| Pecans | 904 | 24.4 |
| Almonds | 409 | 11.1 |
| Cashew | 151 | 4.1 |
| Brazil | 54 | 1.4 |
| Filberts | 39 | 1.0 |
| Peanuts | 22 | .6 |
| Hickory | 19 | .5 |
| Pistachio | 17 | .5 |
| Butternuts | 17 | .5 |
| Hazelnuts | 11 | .3 |
| Chestnuts | 3 | .1 |
| Miscellaneous | 28 | .8 |
| Mixed | 266 | 7.2 |
| Total | 3,697 | 100.0 |

1/ Question not answered 35
None purchased 732

Table 11. Classification by geographic sections of replies to the question: What kinds of nuts have you bought?

| Section | Replies received | Replies reporting purchases of - | | | | | |
|-----------------|------------------|----------------------------------|-------------|-------------|-------------|----------------|------|
| | | Walnuts | | Pecans | | All other nuts | |
| | | No. | No. Percent | No. Percent | No. Percent | | |
| New England | 386 | 214 | 55.4 | 25 | 6.5 | 147 | 38.1 |
| Middle Atlantic | 634 | 259 | 40.9 | 90 | 14.2 | 285 | 44.9 |
| Middle West | 1,724 | 853 | 49.5 | 488 | 28.3 | 383 | 22.2 |
| South | 415 | 115 | 27.7 | 255 | 61.5 | 45 | 10.8 |
| Mountain | 105 | 67 | 63.8 | 21 | 20.0 | 17 | 16.2 |
| Pacific Coast | 433 | 249 | 57.5 | 25 | 5.8 | 159 | 36.7 |
| Total | 3,697 | 1,757 | 47.5 | 904 | 24.5 | 1,036 | 28.0 |

groups had purchased walnuts during the preceding month. Among occupational groups a somewhat higher ratio of skilled and unskilled laborers had purchased walnuts than among the white-collar groups, although the difference was not marked. Likewise, the classification of responses by income groups showed that a somewhat higher percentage of the low-income groups had purchased walnuts than of the higher-income groups, but the difference was not great enough to be highly significant. These latter data tend, however, to confirm other evidence in the survey that lower-income groups are appreciable consumers of walnuts.

Question 3. Is your use of nuts confined to any particular season?

The seasons in which greatest use of nuts occurred were the fall and winter seasons (table 12).

Approximately one out of every four housewives interviewed stated she confined her use of nuts to a particular season (table 13). The Middle Atlantic and Southern States showed a somewhat higher seasonal use than did other sections. The appreciably smaller seasonal use in the Mountain States indicated in these replies must be discounted somewhat by the high degree of probable error coming from the small number of housewives interviewed in that area, although sales data of the association show that purchases of walnuts in the Denver area are less seasonal than in most other areas.

A breakdown by income groups (table 14) showed a somewhat higher percentage of those in the lower-income groups restricting their usage to a particular season that was true of the higher-income groups.

Question 3a. If used in winter only, why not in spring and summer?

Although opinion questions of this kind cannot be fully relied on, inasmuch as people frequently cannot explain their actions, such

questions may elicit information of value, particularly where opinions are expressed frequently enough to indicate the existence of a well-defined attitude.

Table 12. Tabulation of affirmative replies to the question: Is your use of nuts confined to any particular season?

| Season when used | Replies received | Percentage of total |
|----------------------|------------------|---------------------|
| Fall and winter | 659 | 85.3 |
| Spring and summer | 11 | 1.4 |
| Season not specified | 103 | 13.3 |
| Total | 773 | 100.0 |

Table 13. Classification by geographic sections of replies to the question: Is your use of nuts confined to any particular season?

| Section | <u>Affirmative replies</u> | | <u>Negative replies</u> | | Total replies |
|-----------------|----------------------------|---------------------|-------------------------|---------------------|---------------|
| | Number | Percentage of total | Number | Percentage of total | |
| New England | 84 | 21.5 | 306 | 78.5 | 390 |
| Middle Atlantic | 212 | 32.9 | 433 | 67.1 | 645 |
| Middle West | 290 | 23.8 | 931 | 76.2 | 1,221 |
| South | 108 | 31.7 | 233 | 68.3 | 341 |
| Mountain | 11 | 10.2 | 97 | 89.8 | 108 |
| Pacific | 68 | 17.0 | 331 | 83.0 | 399 |
| Total | 773 | 24.9 | 2,331 | 75.1 | 3,104 |

Table 14. Classification by income groups of replies to the question: Is your use of nuts confined to any particular season?

| Income group | Percentage of replies that were - | |
|-----------------------|-----------------------------------|----------|
| | Affirmative | Negative |
| A (over \$5,000) | 21 | 79 |
| B (\$2,500 - \$5,000) | 23 | 77 |
| C (under \$2,500) | 32 | 68 |

Among the 773 housewives who limited their use of nuts primarily to the fall and winter seasons, three reasons for such seasonal use predominated (table 15). About one-fourth of them looked upon nuts as a food for the winter holiday season. Another 25 percent believed that the use of nuts should be limited to the winter season for health reasons. Another 25 percent limited their use to the winter season because they considered the crop fresh only in that period. It is interesting to note that over half of the seasonal users in the South gave this latter reason for their seasonal use. The larger proportion of seasonal use indicated by the survey in this region, and the prevalence of the explanation just mentioned confirmed the view held by the association management that use of nuts is more seasonal in the South than in other sections of the country largely because of the danger of deterioration of quality from the warm climate.

Two consumer attitudes adversely affecting consumption of nuts came to light in response to this question - attitudes that advertising over a period of time might help to break down. In the first place, advertising could develop the view that nuts are a suitable and healthful food for all seasons of the year and are not to be looked upon merely as a holiday or winter food; second, it could develop the idea that fresh nuts can be secured at any time of the year because nut stocks are put into cold storage with the advent of warm weather. To carry out the offer of good-quality nuts at any time of the year, the association would, of course, have to make certain that the trade protected the quality of nuts in the summer period.

Question 4. Do you ordinarily keep a bowl of nuts on hand for cracking and eating right from the shell?

An affirmative answer to this question was taken to indicate at least an occasional use of nuts in this way. About one out of four housewives interviewed gave an affirmative answer to this question (table 16) with somewhat more frequent use in this way indicated in the South and on the Pacific Coast than in other sections.

Question 5. If a bowl is not kept on hand, are there any special occasions when you put out a nut bowl in this way?

Approximately three out of four of the large majority who do not "ordinarily" put out a bowl of nuts for cracking, do so on special occasions, while about one-fourth of them apparently never use nuts in this way (table 17). Among the geographic sections, New England indicated less frequent usage in this way than did other sections.

Table 15. Classification by geographic sections of reasons given for using nuts in winter and not in spring and summer.

| Section | Buy for winter holidays | | Economy | | Health | | Crops fresher in winter | |
|-----------------|-------------------------|---------------------|---------|---------------------|---------|---------------------|-------------------------|---------------------|
| | Replies | Percentage of total | Replies | Percentage of total | Replies | Percentage of total | Replies | Percentage of total |
| New England | 23 | 26.4 | 7 | 8.1 | 30 | 34.5 | 15 | 17.2 |
| Middle Atlantic | 45 | 21.5 | 15 | 7.2 | 45 | 21.5 | 42 | 20.1 |
| Middle West | 101 | 38.5 | 6 | 2.2 | 71 | 25.6 | 55 | 19.8 |
| South | 9 | 8.7 | 1 | 1.0 | 28 | 27.2 | 57 | 55.3 |
| Mountain | 3 | 25.0 | 1 | 8.3 | 6 | 50.0 | 2 | 16.7 |
| Pacific | 18 | 29.0 | 9 | 14.5 | 14 | 22.6 | 6 | 9.7 |
| Total | 199 | 26.5 | 39 | 5.2 | 194 | 25.9 | 177 | 23.6 |

| Section | More fruits and vegetables in summer | | Other reasons | | Don't know | | Total number of replies |
|-----------------|--------------------------------------|---------------------|---------------|---------------------|------------|---------------------|-------------------------|
| | Replies | Percentage of total | Replies | Percentage of total | Replies | Percentage of total | |
| New England | 7 | 8.1 | 2 | 2.3 | 3 | 3.4 | 87 |
| Middle Atlantic | 5 | 2.4 | 44 | 21.1 | 13 | 6.2 | 209 |
| Middle West | 8 | 2.9 | 33 | 11.9 | 3 | 1.1 | 277 |
| South | 2 | 1.9 | 5 | 4.9 | 1 | 1.0 | 103 |
| Mountain | - | - | - | - | - | - | 12 |
| Pacific | 3 | 4.8 | 12 | 19.4 | - | - | 62 |
| Total | 25 | 3.3 | 96 | 12.8 | 20 | 2.7 | 750 |

Table 16. Classification by geographic sections of replies to the question: Do you ordinarily keep a bowl of nuts on hand for cracking and eating right from the shell?

| Section | Affirmative replies | | Negative replies | | Total replies |
|-----------------|---------------------|---------------------|------------------|---------------------|---------------|
| | Number | Percentage of total | Number | Percentage of total | |
| New England | 94 | 23.6 | 305 | 76.4 | 399 |
| Middle Atlantic | 161 | 25.0 | 484 | 75.0 | 645 |
| Middle West | 235 | 19.4 | 979 | 80.6 | 1,214 |
| South | 104 | 30.8 | 234 | 69.2 | 338 |
| Mountain | 24 | 22.2 | 84 | 77.8 | 108 |
| Pacific | 174 | 43.5 | 236 | 56.5 | 400 |
| Total | 792 | 25.5 | 2,312 | 74.5 | 3,104 |

Table 17. Classification by geographic sections of replies to the question: If a bowl is not kept on hand, are there any special occasions when you put out a nut bowl in this way?

| Section | Affirmative replies | | Negative replies | | Total replies |
|-----------------|---------------------|---------------------|------------------|---------------------|---------------|
| | Number | Percentage of total | Number | Percentage of total | |
| New England | 173 | 59.7 | 117 | 40.3 | 290 |
| Middle Atlantic | 371 | 78.4 | 102 | 21.6 | 473 |
| Middle West | 728 | 79.2 | 191 | 20.8 | 919 |
| South | 172 | 85.1 | 30 | 14.9 | 202 |
| Mountain | 76 | 90.5 | 8 | 9.5 | 84 |
| Pacific | 168 | 82.8 | 35 | 17.2 | 203 |
| Total | 1,688 | 77.8 | 483 | 22.2 | 2,171 |

The occasions named are summarized: Winter holidays, 72 percent; entertaining, 8 percent; miscellaneous, 1 percent; time not specified, 19 percent.

Question 6. What kind of nuts do you like best to eat from the shell?

Although walnuts led the procession in preference, being preferred in 44 percent of the cases, and were substantially ahead of pecans in favor, yet it is evident from table 18 and figure 3 that pecans, almonds, and brazil nuts are important competitors of walnuts for this use.

Table 18. Tabulation of replies to the question: What kind of nuts do you like best to eat from the shell?

| Kind of nuts | Number of replies ^{1/} | Percentage of total |
|---------------|---------------------------------|---------------------|
| Walnuts | 1,707 | 44.3 |
| Pecans | 1,022 | 26.6 |
| Almonds | 427 | 11.1 |
| Brazil | 317 | 8.2 |
| Butternuts | 41 | 1.1 |
| Filberts | 37 | 1.0 |
| Hazelnuts | 24 | .6 |
| Hickory | 24 | .6 |
| Pistachio | 24 | .6 |
| Cashew | 20 | .5 |
| Peanuts | 11 | .3 |
| Chestnuts | 8 | .2 |
| Miscellaneous | 73 | 1.9 |
| Mixed | 114 | 3.0 |
| Total | 3,849 | 100.0 |

^{1/} Sixty of those interviewed did not answer this question; 176 answered "none used".

Housewife Preferences for Unshelled Nuts

April, 1935

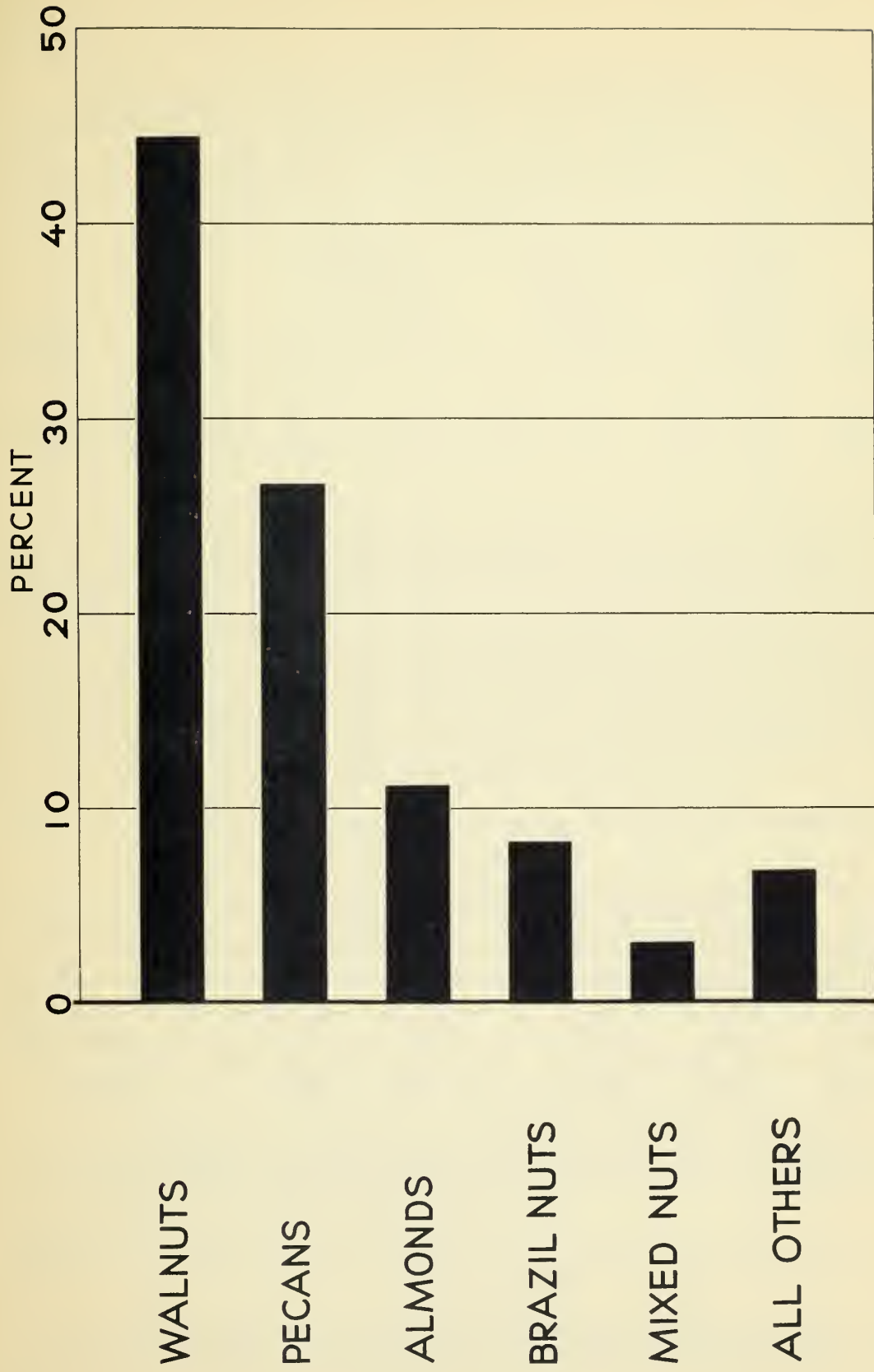


Figure 3. Although 44 percent of housewives expressing a preference by kinds of nuts to eat from the shell in April, 1935, designated walnuts, it is evident that pecans, almonds, and Brazil nuts are important competitors of walnuts for this use.

Among income groups, walnuts had a somewhat higher degree of preference in the lower-income groups than in the higher (table 19).

Table 19. Classification by income groups of replies to the question: What kind of nuts do you like best to eat from the shell?

| Income group | Walnuts | | Pecans | | All others | | Total replies |
|-----------------------|---------|------------------------------|--------|-----------------------------|------------|-----------------------------|---------------|
| | No. | Percent- age of total. | No. | Percent- age of total | No. | Percent- age of total | |
| A (over \$5,000) | 329 | 39.9 | 246 | 29.8 | 250 | 30.3 | 825 |
| B (\$2,500 - \$5,000) | 864 | 43.1 | 565 | 28.2 | 574 | 28.7 | 2,003 |
| C (under \$2,500) | 514 | 50.3 | 211 | 20.7 | 296 | 29.0 | 1,021 |

In a breakdown of preferences by geographic areas it is interesting to note that the preferences by types of nuts parallel quite closely the kind of nuts purchased. In the South, where pecans are the most favored nut, they are also preferred over walnuts for eating out of the shell. Pecans assume an appreciably more important position in the Middle West and Mountain States where previous data indicate they are more widely used than in other sections of the country. These data would tend to indicate probably not only that people bought the nuts which they liked but also that the purchase and use of a particular kind of nut may tend to develop a taste for it.

Table 20. Preference expressed for walnuts and pecans by Jewish and other housewives

| Nuts preferred | Replies expressing preference by - | | | | |
|----------------|------------------------------------|---------|------------------|---------|-------|
| | Jewish housewives | | Other housewives | | Total |
| | Number | Percent | Number | Percent | |
| Walnuts | 140 | 56.2 | 1,567 | 43.5 | 1,707 |
| Pecans | 32 | 12.9 | 990 | 27.5 | 1,022 |
| Other nuts | 77 | 30.9 | 1,043 | 29.0 | 1,120 |
| Total | 249 | 100.0 | 3,600 | 100.0 | 3,849 |

A breakdown by racial groups showed that the Jewish housewives interviewed prefer walnuts to pecans and other nuts to a significantly higher degree than other groups (table 20).

Question 7. About how many pounds of walnuts do you buy a year, shelled and unshelled?

It was realized in advance that housewives could not answer this question accurately. A large degree of error was expected, yet it

was believed that the estimates would provide a rough basis for separating purchasers into groups according to frequency of use. As in their estimates of amounts of all kinds of nuts purchased in the preceding month, housewives tended to overestimate the amounts of walnuts purchased during the year. The average annual estimated purchases of unshelled walnuts per family were 6.7 pounds. Even though we recognize that the sample interviewed was weighted in favor of the higher-income groups, a considerable degree of error in the estimates is indicated by the fact that the actual annual per capita consumption of walnuts in the United States was at the time slightly under three-quarters of a pound, or approximately 3 pounds per family.

Eighteen percent of the housewives indicated that they were not buyers of walnuts in the shell (table 21) as contrasted with 55 percent who said that they were not buyers of shelled walnuts (table 22).

A breakdown by income classifications (table 23) shows that there was no appreciable difference in the percentage of purchasers of walnuts among the various groups. The A income group gave higher estimates of pounds bought than did the B and C groups.

A higher percentage of A and B groups than of the C group announced themselves as purchasers of shelled walnuts. The estimates of average number of pounds bought were also higher for these groups (table 24).

A breakdown of data relating to the quantity of nuts in the shell purchased by housewives in large and small cities did not show any appreciable difference in the percentage of those purchasing, or the estimated quantities purchased. On the other hand, in the smaller cities 62 percent stated that they were buyers of shelled nuts; in large cities, only 40 percent.

In a geographical breakdown of purchases of walnuts, the South and Middle West appeared to have a higher percentage of nonbuyers of walnuts in the shell than other sections of the country, while the Middle Atlantic, Southern, and Pacific States showed an appreciably smaller percentage of purchasers of shelled walnuts (table 25).

Question 8. About how often do you use walnuts in recipes?

The replies to this question indicated that American housewives use walnuts in recipes to a very considerable extent. Approximately 60 percent said that they used them in this way twice a month or oftener. Over 15 percent stated that they used them once a month, while approximately 25 percent said that they used them in recipes rarely or never (table 26).

Table 21. Tabulation of replies to the question: About how many pounds of walnuts do you buy a year in the shell?

| Pounds purchased yearly | Estimated average purchase <u>1/</u> (pounds) | Replies reporting quantity purchased | Percentage of total replies in group | Estimated total quantity purchased (pounds) |
|-------------------------|---|--------------------------------------|--------------------------------------|---|
| None | -- | 537 | 18.3 | - |
| 0 to 5 | 2 1/2 | 1,086 | 37.1 | 2,758 |
| 6 to 10 | 8 | 683 | 23.3 | 5,464 |
| 11 to 15 | 13 | 306 | 10.4 | 3,978 |
| 16 to 20 | 18 | 103 | 3.5 | 1,854 |
| 21 to 25 | 23 | 102 | 3.5 | 2,346 |
| 26 to 50 | 38 | 98 | 3.4 | 3,724 |
| 51 to 100 | 75 | 11 | 0.4 | 825 |
| 101 or more | 100 | 4 | 0.1 | 400 |
| Total | | 2,930 <u>2/</u> | 100.0 | 21,349 |

1/ The midpoint of each group was used for estimating purposes.

2/ 203 did not answer this question.

Table 22. Tabulation of replies to the question: About how many pounds of walnuts do you buy a year shelled?

| Pounds purchased yearly | Estimated average purchase <u>1/</u> (pounds) | Number of replies reporting quantity purchased | Percentage of total replies in group | Estimated total quantity purchased (pounds) |
|-------------------------|---|--|--------------------------------------|---|
| None | -- | 1,581 | 55.1 | - |
| 0 to 5 | 2 1/2 | 811 | 28.2 | 2,028 |
| 6 to 10 | 8 | 348 | 12.1 | 2,784 |
| 11 to 15 | 13 | 82 | 2.9 | 1,066 |
| 16 to 20 | 18 | 29 | 1.0 | 522 |
| 21 to 25 | 23 | 14 | .5 | 322 |
| 26 or more | 25 | 7 | .2 | 175 |
| Total | | 2,872 <u>2/</u> | 100.0 | 6,897 |

1/ Same as table 21.

2/ 261 did not answer this question.

Table 23. Classification by income groups of replies to the question: About how many pounds of walnuts do you buy a year in the shell?

| Income group | Purchasers | | Nonpurchasers | | | Pounds purchased yearly | | |
|-----------------------|------------|----------------------------|---------------|----------------------------|---------------|-------------------------|--|--------------------|
| | Number | Percentage of income group | Number | Percentage of income group | Total replies | Total | Average per family purchasing in group | Average per family |
| A (over \$5,000) | 507 | 81.1 | 118 | 18.9 | 625 | 5,562 | 11.0 | 8.9 |
| B (\$2,500 - \$5,000) | 1,196 | 79.6 | 307 | 20.4 | 1,503 | 8,456 | 7.1 | 5.6 |
| C (under \$2,500) | 690 | 86.0 | 112 | 14.0 | 802 | 5,471 | 7.9 | 6.8 |
| Total | 2,393 | 81.7 | 537 | 18.3 | 2,930 | 19,489 | 8.1 | 6.7 |

Table 24. Classification by income groups of replies to the question: About how many pounds of walnuts do you buy a year shelled?

| Income group | Purchasers | | Nonpurchasers | | | Pounds purchased yearly | | |
|-----------------------|------------|----------------------------|---------------|----------------------------|---------------|-------------------------|--|--------------------|
| | Number | Percentage of income group | Number | Percentage of income group | Total replies | Total | Average per family purchasing in group | Average per family |
| A (over \$5,000) | 319 | 52.1 | 293 | 47.9 | 612 | 2,005 | 6.3 | 3.3 |
| B (\$2,500 - \$5,000) | 686 | 46.3 | 779 | 53.2 | 1,465 | 3,906 | 5.7 | 2.7 |
| C (under \$2,500) | 286 | 36.0 | 509 | 64.0 | 795 | 1,266 | 4.4 | 1.6 |
| Total | 1,291 | 45.0 | 1,581 | 55.0 | 2,872 | 7,177 | 5.6 | 2.5 |

Table 25. Geographic distribution of purchasers of walnuts shelled and unshelled

| Geographic section | Walnuts in the shell | | Shelled walnuts | |
|--------------------|---|---------------|---|---------------|
| | Percentage of replies from area reporting - | | Percentage of replies from area reporting - | |
| | Purchasers | Nonpurchasers | Purchasers | Nonpurchasers |
| New England | 89 | 11 | 46 | 54 |
| Middle Atlantic | 88 | 12 | 35 | 65 |
| Middle West | 75 | 25 | 59 | 41 |
| South | 75 | 25 | 31 | 69 |
| Mountain | 92 | 8 | 55 | 45 |
| Pacific | 93 | 7 | 28 | 72 |

Table 26. Tabulation of replies to the question: About how often do you use walnuts in recipos?

| Frequency of use | Number of replies in group | Percentage of total |
|-----------------------|----------------------------|---------------------|
| More than once a week | 408 | 13.2 |
| Once a week | 695 | 22.5 |
| Twice a month | 756 | 24.4 |
| Once a month | 483 | 15.6 |
| Rarely | 544 | 17.6 |
| Uncertain | 6 | .2 |
| Never | 200 | 6.5 |
| Total | 3,092 | 100.0 |

Among the geographic areas, the Middle Atlantic States showed a larger percentage stating that they rarely or never used walnuts in cooking than in any other section of the country, the Southern States standing second. Moreover, in the Middle Atlantic States the percentage indicating a relatively frequent use in cooking was the lowest of any section. To a later question (No. 13), a relatively high percentage of housewives in this area stated that the eating of nuts from the shell accounted for the consumption of the greater part of the walnuts purchased by them.

An analysis of replies by city groups showed a somewhat higher percentage of those in cities under 30,000 population indicating use of walnuts in recipos than in cities over 30,000 (table 27). The differences are not appreciable, however.

Question 9. If you use walnuts in prepared dishes, what are your reasons for doing so?

The responses to this question are not highly illuminating. Taste or flavor was the outstanding response given, approximately 60 percent of those questioned giving this reply. The replies from all sections are summarized in table 28.

Question 10. What are your favorite dishes in which you use walnuts?

This particular question is of significance from an advertising standpoint in indicating uses to be featured in promotional effort. In the use of walnuts for cooking, cakes and cookies were the dishes in which walnuts were most frequently used, 34 percent of the housewives indicating this preference. The next highest percentage, 27 percent, referred to salads. The replies from those who indicated that they used walnuts in cooking are summarized in table 29. No geographic breakdown is given since there were no significant differences between areas.

Table 27. Classification by size of city of replies to the question:
About how often do you use walnuts in recipes?

| Size of city | Percentage reporting use of nuts - | | |
|-------------------------|------------------------------------|--------------|-----------------|
| | Twice a month | Once a month | Rarely or never |
| Over 30,000 population | 58.3 | 16.0 | 25.7 |
| Under 30,000 population | 67.5 | 13.9 | 18.6 |

Table 28. Tabulation of replies to the question: If you use walnuts in prepared dishes, what are your chief reasons for doing so?

| Reason | Number of replies in group | Percentage of total |
|-------------------|----------------------------|---------------------|
| Taste or flavor | 2,162 | 59.4 |
| Nutriment | 562 | 15.4 |
| Appearance | 301 | 8.3 |
| Recipe ingredient | 312 | 8.6 |
| All others | 247 | 6.8 |
| None used | 54 | 1.5 |
| Total | 3,638 | 100.0 |

Table 29. Tabulation of replies to the question: What are your favorite dishes in which you use walnuts?

| Dish | Number of replies in group | Percentage of total |
|------------------------|----------------------------|---------------------|
| Salads | 1,575 | 27.0 |
| Cakes and cookies | 2,004 | 34.3 |
| Breads, rolls, muffins | 380 | 6.5 |
| Candies | 617 | 10.6 |
| Desserts | 391 | 15.2 |
| Other uses | 259 | 4.4 |
| None | 118 | 2.0 |
| Total | 5,844 | 100.0 |

Question 11. What kind of nuts do you like best for use in various specified dishes?

Walnuts are favored for most cooking purposes by 54 percent of the housewives (table 30 and figure 4). The highest preference, 71 percent, was for use in cakes and cookies, with salads a good second. Although walnuts were most favored, pecans showed an appreciable degree of preference for recipe purposes by 23 percent of the housewives.

As had been supposed, almonds and other nuts are not used extensively for cooking purposes, and other salted nuts are preferred to salted walnuts.

Question 12. In buying nuts have you had a tendency to switch to any particular kind during recent years?

In this question an effort was made to determine whether an appreciable number of housewives were conscious of changing the kind of nuts they used. Thus an indication of trends in nut usage might be had, together with reasons therefor. Seventeen percent of the housewives interviewed believed they had tended to change. The data did not show any clear evidence of trend to or from particular nuts. Walnuts were shown to be holding their own.

Question 13. In which way do you use more walnuts: For use in recipes; to eat from the shell; or both equally?

As shown in table 31, a much larger percentage of walnuts is used for recipes than for eating from the shell.

Table 30. Tabulation of replies to question: What kind of nuts do you like best for use in - ?

| Kind of nuts | Salads | | Cakes and cookies | | Candies | | Desserts | |
|---------------|-------------------|-----------------------|-------------------|-----------------------|-------------------|-----------------------|-------------------|-----------------------|
| | Number of replies | Percent- age of total | Number of replies | Percent- age of total | Number of replies | Percent- age of total | Number of replies | Percent- age of total |
| Walnuts | 1,801 | 66.1 | 2,269 | 71.1 | 1,592 | 63.5 | 1,520 | 62.9 |
| Almonds | 173 | 6.4 | 175 | 5.5 | 133 | 5.3 | 163 | 6.8 |
| Pecans | 636 | 23.4 | 579 | 18.1 | 569 | 22.7 | 602 | 24.9 |
| All others | 44 | 1.6 | 100 | 3.1 | 126 | 5.0 | 43 | 1.8 |
| No preference | 65 | 2.4 | 64 | 2.0 | 86 | 3.4 | 78 | 3.2 |
| Mixed | 3 | .1 | 5 | .2 | 2 | .1 | 9 | .4 |
| Total | 2,722 | 100.0 | 3,192 | 100.0 | 2,508 | 100.0 | 2,415 | 100.0 |



Nuts Preferred by Housewives for Various Uses

April, 1935

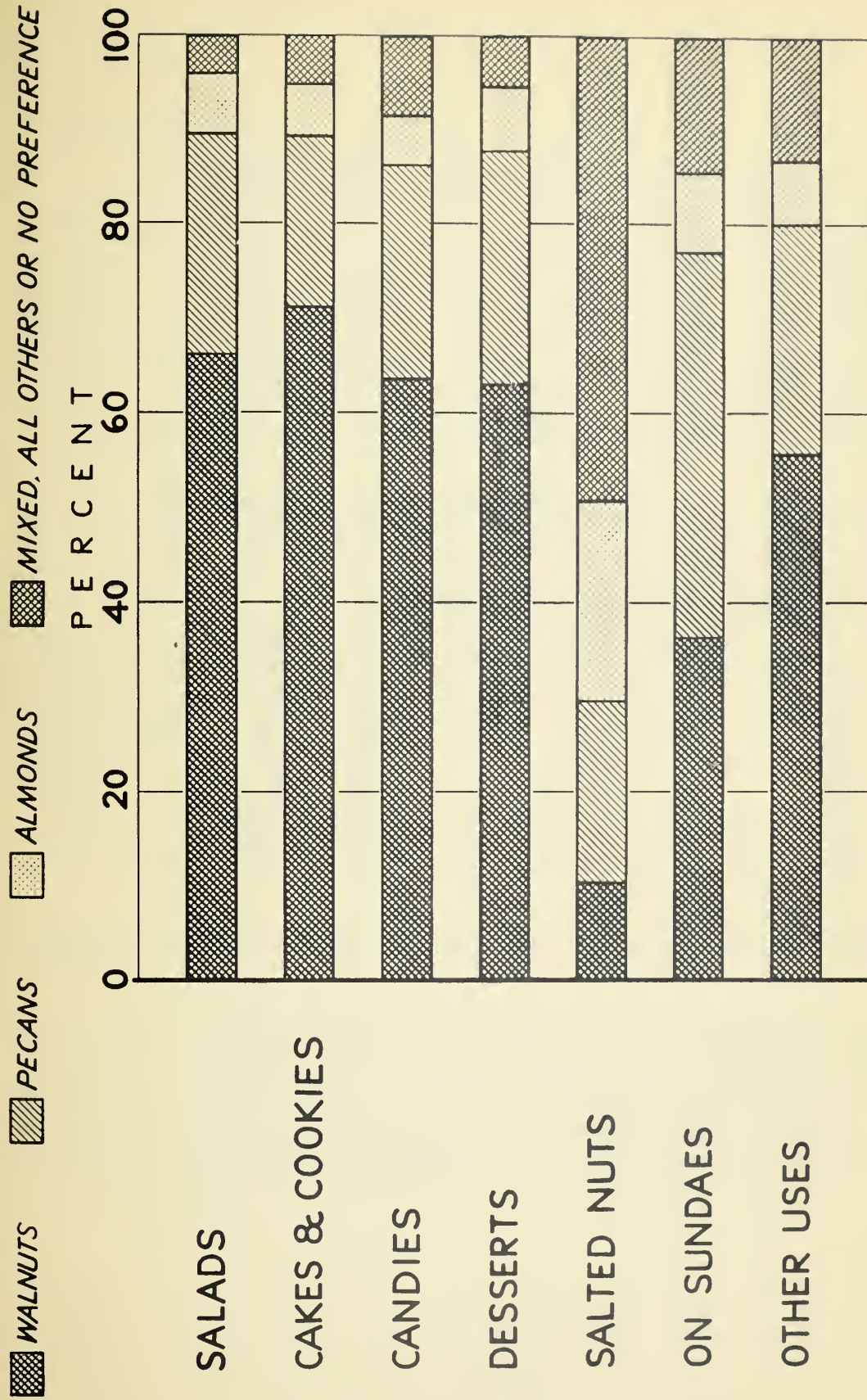


Figure 4. Walnuts were preferred for various uses by 54 percent of the housewives interviewed in April, 1935, the highest preference being for use in cakes and cookies, with salads a close second. Pecans were preferred for recipe purposes by 23 percent of the housewives, and easily lead for use on sundaes. Almonds were preferred for recipe purposes by about 9 percent of the housewives and lead for use as salted nuts.

Table 30. (Continued)

| Kind of nuts | Salted Nuts | | On sundaes | | Other uses | | Total | |
|---------------|-------------------|-----------------------|-------------------|-----------------------|-------------------|-----------------------|-------------------|-----------------------|
| | Number of replies | Percent- age of total | Number of replies | Percent- age of total | Number of replies | Percent- age of total | Number of replies | Percent- age of total |
| Walnuts | 258 | 10.3 | 471 | 36.3 | 449 | 55.7 | 8,360 | 54.2 |
| Almonds | 530 | 21.2 | 109 | 8.4 | 55 | 6.8 | 1,338 | 8.7 |
| Pecans | 478 | 19.2 | 529 | 40.8 | 196 | 24.3 | 3,589 | 23.2 |
| All others | 493 | 19.8 | 41 | 3.2 | 30 | 3.7 | 877 | 5.7 |
| No preference | 162 | 6.5 | 116 | 9.0 | 65 | 8.1 | 636 | 4.1 |
| Mixed | 573 | 23.0 | 30 | 2.3 | 11 | 1.4 | 633 | 4.1 |
| Total | 2,424 | 100.0 | 1,296 | 100.0 | 806 | 100.0 | 15,433 | 100.0 |

Table 31. Classification by geographic sections of replies to the question: In which way do you use more walnuts?

| Section | Replies reporting indicated use - | | | | | | Total replies |
|-----------------|-----------------------------------|-----------------------|-------------------------|-----------------------|------------------------|-----------------------|---------------|
| | In recipes | Percent- age of total | For eat- ing from shell | Percent- age of total | Equally and other ways | Percent- age of total | |
| New England | 239 | 60.7 | 79 | 20.0 | 76 | 19.3 | 394 |
| Middle Atlantic | 291 | 46.2 | 222 | 35.2 | 117 | 18.6 | 630 |
| Middle West | 792 | 66.1 | 140 | 11.7 | 266 | 22.2 | 1,198 |
| South | 166 | 50.5 | 53 | 16.1 | 110 | 33.4 | 329 |
| Mountain | 86 | 81.1 | 12 | 11.3 | 8 | 7.6 | 106 |
| Pacific | 237 | 59.6 | 59 | 14.8 | 102 | 25.6 | 398 |
| Total | 1,811 | 59.3 | 565 | 18.5 | 679 | 22.2 | 3,055 |

Question 14. Are you using more walnuts or fewer walnuts in cooking and in salads than in past years?

It is doubtful to what extent answers to this question can be relied upon. The tabulation of data showed that approximately one-half did not believe they had changed the quantity of walnuts used in cooking, while the remaining half were evenly divided among those who believed they used more and those who thought they used less. The records of decreased consumption in the past few years indicate a lack of accuracy in this estimate made by the housewives.

Question 15. When buying walnuts for cooking use, do you buy them in the shell or unshelled?

While it has been known that a very substantial percentage of shelled walnuts go to the household trade, it has not been known to what extent housewives bought walnuts in the shell for cooking purposes, and to what extent they bought shelled walnuts. Over 57 percent of those interviewed stated that they bought walnuts in the shell for cooking purposes, while some 8 percent more stated that they bought part of their requirements in this way. On the other hand, it will be noted that the purchase of shelled walnuts has gained a considerable hold among housewives, some 34 percent apparently having bought all their cooking walnuts in this form, and 8 percent having bought part of them in this form.

When asked why, the following reasons appeared with high frequency: 34 percent thought it was cheaper to buy walnuts in the shell, and 42 percent preferred walnuts in the shell because they remained fresh longer. Again the importance of freshness to the consumer came to the fore. The outstanding reason given for buying shelled walnuts was their convenience, 78 percent indicating this reason.

Question 16. What brand of walnuts do you know?

This question was designed to get some idea of the effectiveness of past advertising and promotional work. The Diamond brand has been the only brand, until recently, which has been stamped on walnuts. The bases for building a brand familiarity have been, first, the advertising in various media; and second, the brand name stamped on the nuts, to be seen when they are consumed.

Diamond is practically the only walnut brand familiar to housewives (table 32). Approximately 40 percent of those interviewed were not familiar with any brand.

Table 32. Tabulation of replies to the question: What brand of nuts do you know?

| Brand | Replies indicating brand ^{1/} | |
|--------------------|--|---------------------|
| | Number | Percentage of total |
| Diamond | 1,754 | 57.7 |
| Oregon Franquettes | 13 | .4 |
| California | 12 | .4 |
| All others | 71 | 2.3 |
| None | 1,193 | 39.2 |
| Total | 3,043 | 100.0 |

^{1/} 150 did not answer this question.

Table 32. (Continued)

| Brand | Replies indicating brand <u>1/</u> | |
|-------------------------------------|------------------------------------|---------------------|
| | Number | Percentage of total |
| <u>Total brands mentioned:</u> | | |
| Diamond | 1,754 | 94.8 |
| All others, including California | 96 | 5.2 |
| Total | 1,850 | 100.0 |

1/ 150 did not answer this question.

Question 17. Do you ever have trouble getting walnuts when you want them?

In view of the fact that the great bulk of walnuts move into the trade in the fall and early winter months, there has been some question as to whether housewives have been able to get walnuts when they want them because of failure of retailers to keep them in stock. In most instances women are able to get walnuts when they want them (table 33). Only 10 percent stated that they had difficulty getting walnuts, a lower percentage than might have been expected. Whether this percentage would have been greater had the study been made in summer months can be only a matter of speculation.

Question 18. Do you remember ever having seen walnut advertised?

The advertising schedule of the association is a very limited one. Generally advertising has been limited to the fall and early winter months in the leading women's magazines. Outdoor advertising has been restricted to the larger cities. The response to this question indicated that the Diamond advertisements had attracted attention and left an impression (table 34).

Question 21. Do your children eat walnuts?

This question was devised indirectly to determine whether there was a prejudice on the part of mothers against walnuts as a food for children. The responses showed that, except for very young children, mothers apparently considered walnuts a good food for their children because, for children over 5 years, 93 percent of the mothers stated that their children ate walnuts.

Table 33. Classification by geographic sections of replies to the question: Do you ever have trouble getting walnuts when you want them?

| Section | Affirmative replies | | Negative replies | | Total replies |
|-----------------|---------------------|---------------------|------------------|---------------------|---------------|
| | Number | Percentage of total | Number | Percentage of total | |
| New England | 38 | 9.9 | 346 | 90.1 | 384 |
| Middle Atlantic | 56 | 9.1 | 578 | 90.9 | 636 |
| Middle West | 105 | 9.1 | 1,052 | 90.9 | 1,157 |
| South | 33 | 10.3 | 288 | 89.7 | 321 |
| Mountain | 11 | 10.3 | 96 | 89.7 | 107 |
| Pacific | 9 | 2.4 | 372 | 97.6 | 331 |
| Total | 254 | 8.5 | 2,732 | 91.5 | 2,986 |

Table 34. Classification by geographic sections of replies to the question: Do you remember ever having seen walnuts advertised?

| Section | Affirmative replies | | Negative replies | | Don't know | | Total replies |
|-----------------|---------------------|---------------------|------------------|---------------------|------------|---------------------|---------------|
| | Number | Percentage of total | Number | Percentage of total | Number | Percentage of total | |
| New England | 205 | 52.6 | 169 | 43.3 | 16 | 4.1 | 390 |
| Middle Atlantic | 454 | 70.4 | 186 | 23.8 | 5 | .8 | 645 |
| Middle West | 936 | 77.3 | 255 | 21.1 | 20 | 1.6 | 1,211 |
| South | 229 | 67.0 | 113 | 33.0 | | | 342 |
| Mountain | 87 | 80.6 | 21 | 19.4 | | | 108 |
| Pacific | 312 | 78.8 | 79 | 19.9 | 5 | 1.3 | 396 |
| Total | 2,223 | 71.9 | 823 | 26.6 | 46 | 1.5 | 3,092 |

APPENDIX. - INSTRUCTIONS TO INVESTIGATORS AND
QUESTIONNAIRE USED

Please read instructions carefully with a questionnaire before starting to interview.

The object of this survey is to study consumer attitudes toward the use of nuts in general and walnuts in particular. We are trying to determine how they are used, when they are used, why they are not used more, and to what extent advertising has been effective.

Recording Information

Question 1: You can lead into this question very easily with a simple statement such as, "I am doing some research work on nuts and I should like to know your opinion of the food value of nuts." It may take the person interviewed a little more time to collect her thoughts, but just be patient and repeat the question for her. Write down in the space allotted just what she says. We are trying to find out from this question, not whether nuts are liked or disliked, but whether they are considered wholesome, high in food value, indigestible, bad for children, etc. If the person interviewed very seldom or never uses nuts, do not attempt to interview her.

Question 2: This question includes all kinds of nuts, mixed or plain, shelled or in the shell, except peanuts. Peanuts should not be included in any of the questions. If none has been bought in past month, write "none".

- 2a: Record all the different kinds bought in the past month.
- Question 3: Record simply "yes" or "no", as the case may be, in the space after "season". If "yes" is answered, ask "when", and record whatever the answer may be, such as, winter, holiday season, Thanksgiving, Christmas, etc.
- 3a: An answer "around the holidays" etc. in question 3 is to be considered as "winter only", and 3a should be asked in that case. We are very anxious to find out from this question why people do not buy nuts the whole year 'round. If "no" is the answer in 3, do not ask 3a.
- Question 4: Record either "yes" or "no" in the space allotted.
- Question 5: If "no" is the answer in No. 4, ask No. 5. This should be answered either "yes" or "no". If "yes", write in after the "yes", on what special occasions a nut bowl is put out.
- Question 6: Simply write in the answer as given.
- Question 7: You will notice that this question and most of the following ones refer only to walnuts. It will be difficult to get any exact yearly quantity, but try to get the person interviewed to give a general estimate of the number of pounds bought yearly in the shell and the number of pounds bought already shelled. Record answer in the proper place.
- Question 8: Check frequency in the proper place. Anything less often than once a month should be considered as "rarely". Check "never" if walnuts are not used in recipes.

- Question 9: Write down reasons just as they are given to you. You may get such reasons as "flavor", "nutritious", "recipe calls for them", etc. If "never" has been checked in No. 8, do not ask No. 9.
- Question 10: This question may include salads, appetizers, sauces, as well as all cooked dishes. Of course, if walnuts are not used in any prepared dishes, do not ask the question.
- Question 11: Read off all the different uses and record the preferred kind of nut after each use. If the person interviewed does not use nuts in salads or any of the listed uses, leave that particular space blank. If peanuts are mentioned under any of these uses, try to get the next choice. Write in any "other uses" mentioned and record the kind of nut preferred.
- Question 12: In this question, we are trying to find out whether preference or consumption has been shifting to any particular kind of nut, as compared to the kind formerly bought, and the reasons therefor. The "why" should be asked only in case of a "yes" answer.
- Questions 13 and 14: Simply check answers given in the space allotted.
- Question 15: Check answer given and write down reasons for buying that way. If walnuts are bought both ways for cooking use, write in "both" and explain reason why.
- Question 16: Write in brands known in the space after "know". The "how identified" refers to the brands mentioned.

Question 17: This requires a simple "yes" or "no" answer.

Question 18: This requires a simple "yes" or "no" answer. If the answer is "yes", ask "what brand".

Questions 19, Record the number in family. If there are no children 20 and 21:

under 14 years, omit questions No. 20 and No. 21.

Question 21 requires a "yes" or "no" answer. Write in any comments on lines below.

Please write down at the bottom of the page any interesting comments on nuts which you have received during the interview.

Important. Please be sure to ask all the questions. There should be no blank questions for a completed questionnaire, except those specified in the instructions. If the person interviewed cannot answer or does not know the answer to any question, write in the answer as "don't know".

Classification Section. Except for "occupation of head of family", which should be a direct question, this section should be filled out after leaving the house. Estimate the age of the person interviewed. Fill in the "nationality".

Income Class. Under this, report from general appearance of house, neighborhood, occupation, etc. whether A, over approximately \$5,000; B, \$2,500 to \$5,000; C, under \$2,500.

We would like interviews distributed approximately 25 percent in A families, 50 percent in B families, and 25 percent in C families.

Fill in street address and city of person interviewed.

Please go over the questionnaire to make sure that all information is checked properly and that the answers are complete. Put your own initials or name, at the end of each questionnaire.

PLEASE WRITE WITH PENCIL

QUESTIONNAIRE

1. What is your opinion of the food value of nuts? _____

2. About how many pounds of nuts have you bought during the past month?

- 2a. What kinds have you bought? _____
3. Is your use of nuts confined to any particular season? _____
If so, when? _____
- 3a. If in winter only, why not in spring and summer? _____

4. Do you ordinarily keep a bowl of nuts on hand for cracking and eating right from the shell? _____
5. If not, are there special occasions when you put out a nut bowl in this way? _____
6. What kind of nuts do you like best to eat from the shell? _____
7. About how many pounds of walnuts do you buy a year?
In the shell? _____ Shelled? _____
8. About how often do you use walnuts in recipes?
More than once a week _____
Once a week _____
About twice a month _____
About once a month _____
Rarely _____ Never _____
9. If you use walnuts in prepared dishes, what are your chief reasons for doing so? _____

10. What are your favorite dishes in which you use walnuts?

QUESTIONNAIRE - (Continued)

11. What kind of nuts do you like best for use in:

Salads _____
Cakes and cookies _____
In candies _____
Desserts _____
Salted nuts _____
On sundaes _____
Other uses _____

12. In buying nuts, have you had a tendency to switch to any particular kind during recent years? Yes _____ No _____ If "yes", to what kind? _____ Why? _____

13. In which way do you use more walnuts: For use in recipes _____ or to eat from the shell _____ Equally _____

14. Are you using more walnuts or fewer walnuts in cooking and in salads now than in past years?
More _____ Fewer _____ No change _____

15. When buying walnuts for cooking use, do you buy them:

In the shell? _____ Shelled? _____
Why? _____

16. What brands of walnuts do you know? _____ If more than one is named, which do you consider best? _____ How identified? _____

17. Do you ever have trouble getting walnuts when you want them? _____

18. Do you remember ever having seen walnuts advertised? _____
What brand? _____

19. Number in family _____

20. Ages of children (if any) _____

21. Do your children eat walnuts? _____

Comments _____

Date of interview _____ Nationality _____
Age of interviewee _____ Income class _____
Occupation of head of family _____ Street address _____
City _____
Name not necessary



