RESPONSE VARIATION ENCOUNTERED WITH DIFFERENT QUESTIONNAIRE FORMS

AN EXPERIMENTAL STUDY OF SELECTED TECHNIQUES USED IN AGRICULTURAL MARKETING RESEARCH

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The basic research design for the study, and the technical supervision, analysis, and the preparation of the report were the responsibilities of

Daniel B. Levine, Agricultural Marketing Service, and
Herman P. Miller, Bureau of the Census

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SUMMARY

As a major user of consumer purchase data, the Department of Agriculture feels responsible for investigating, evaluating, and improving the methods used to obtain such data. Some of the differences in interview survey results arise through the use of reporting periods of different lengths as well as different types of question wording. To investigate these differences, the Department conducted an experiment jointly with the Bureau of the Census in May 1955.

The survey procedure utilized 4 separate national matched samples of households, and information was obtained either by personal interview or by telephone on the purchase of and expenditures for 7 selected food items. Each subsample was used to test a particular aspect of either question wording or time reference.

Perhaps the most important finding of this study is that few statistically significant differences existed among the results obtained from the 4 subsamples. On the other hand, a comparison of the results from this study with other available independent data, such as those obtained through family record keeping or estimates of domestic disappearance based on industry data, results in differences that are substantially larger than those obtained by internal comparisons of the procedures tested.

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An Experimental Study of Selected Techniques Used in Agricultural Marketing Research

By Daniel B. Levine and Herman P. Miller 1/

INTRODUCTION

This report summarizes the results of a study of consumer purchases of seven food items that was conducted jointly by the Department of Agriculture and the Bureau of the Census in May 1955. The study was primarily methodological and was designed to measure the variations in response when questions about the purchases of selected food items were asked in different ways. More specifically, the study attempted to measure the magnitude and the direction of the variation in response associated with (a) varying the period of recall of the purchase of selected food items, and (b) changing the question wording.

Most research people working on problems of collecting primary data about food or other product disappearance have long been aware of the existence of response errors. Accurate measurement of the consumers' actions has been needed for many years; with the expansion in research about the consumer market, the problem has become more pressing. Attempts to measure response errors, however, have been primarily on an ex post facto basis. The present study represents one of the first large-scale attempts to measure response errors in a survey of food purchases with the use of an experimental design for evaluation as the primary objective of the overall project.

Before the procedures or the results of this survey are discussed in detail, attention should be called to an important fact. Although four different procedures were used to collect the information shown in this report, there was no a priori basis for deciding which, if any, of these procedures would produce the most valid results. All that was decided in advance was that each procedure would be used by each interviewer in a representative sample of households and during a specified period of time. With these objective controls, one could deduce that significant differences in the results would be attributable to the variations in question wording or survey procedures. However, further deductions regarding the basic accuracy of any or all of the procedures would be unwarranted.

1/ Respectively, project leader, Market Development Branch, Marketing Research Division, Agricultural Marketing Service, and assistant chief, Economic Statistics Branch, Population Division, Bureau of the Census.

METHODOLOGY

The current study utilized the Census Bureau's national area probability sample survey, the Current Population Survey (CPS), which provides monthly information on employment and related subjects. In May 1955, when the field work for this study was completed, the CPS sample consisted of about 24,000 households in 230 sample areas, covering about 450 counties and cities scattered throughout all regions of the country. 2/ Data on purchases and expenditures for the seven food items were collected as a supplement to the regular survey, and were obtained through interviews with the family member who did most of the shopping and who was familiar with the shopping habits of other family members. The information was obtained either by personal interview or by telephone. Only one schedule was filled for each household, but this schedule provided information about purchases (including home deliveries) made by all family members during the specified period, as reported by the respondent.

For purposes of this study, the sample was divided into four equal subsamples. Each of these subsamples was designed to be representative of the civilian noninstitutional population of the United States. Households in each subsample were asked about their purchases of selected food products. The following food products were included in subsamples 1-3 described below: frozen orange juice, fresh oranges, all-purpose flour, coffee, oleomargarine, butter, and lamb. In subsample 4, only frozen orange juice and butter were included. The selection of food items to be included in the study was fairly arbitrary and, of necessity, was limited because of funds and facilities available. Consideration was given, however, to including items used by both a relatively high and a relatively low proportion of families, as well as foods bought frequently and infrequently.

Each subsample was used to test a particular aspect of either question wording or time reference. 3/ The following is a description of the procedure used in each subsample.

Subsample 1. The 6,000 households in this subsample were divided into 3 groups. Each group was asked about the quantity and cost of purchases of the 7 food products during the previous 3 or 4 days. In each case, the enumerator asked first about purchases made on the day preceding the interview, and then about purchases made on the second, third, and fourth day before the interview.

2/ For a detailed description of the Current Population Survey as it was constituted in May 1955, see U. S. Bureau of the Census, Current Population Reports, Series P-23, No. 2.

3/ Copies of the questionnaires used are presented in the appendix.

(1) The first group, consisting of some 600 households, was interviewed on Wednesday, May 11, to obtain information on purchases made on each of the preceding 4 days; that is, Saturday, May 7, through Tuesday, May 10.

(2) The second group, consisting of 1,200 households, was interviewed on Friday, May 13, about purchases made on either Tuesday, Wednesday, or Thursday of the same week.

(3) The last group, consisting of some 4,200 households, was interviewed on Monday, May 16, about purchases made on the preceding Thursday, Friday, Saturday, and Sunday.

Subsample 1 was divided in this way in order to minimize the sampling error. Instead of assigning the sample households equally among the shopping days, an attempt was made to take into account the amount of shopping done on each day. As a basis for this kind of stratification, it was assumed that about 70 percent of all purchases are made during the weekend, 20 percent are made during the middle of the week, and 10 percent are made at the beginning of the week. As in all stratification, the accuracy of these assumptions could affect only the degree of sampling error, not the validity of the results.

By properly inflating each of the groups in this subsample, aggregate purchases and aggregate expenditures were estimated for the week of May 8 to May 14. These estimates were prepared on two different bases (subsample 1a and subsample 1b) by using information obtained for different days in the Wednesday, Friday, and Monday interviews. The particular days included in subsamples 1a and 1b are shown below.

Interview date	Subsample 1a	Subsample 1b
Wednesday, May 11	Sunday, May 8 Monday, May 9	Sunday, May 8 Monday, May 9 Tuesday, May 10
Friday, May 13	Tuesday, May 10 Wednesday, May 11	Wednesday, May 11 Thursday, May 12
Monday, May 16	Thursday, May 12 Friday, May 13 Saturday, May 14	Friday, May 13 Saturday, May 14

In subsample 1a, families were required to recall their purchases of particular items for a maximum of 3 or 4 days. In subsample 1b, the maximum recall period varied between 2 and 3 days.

Since none of the families in either subsample 1a or 1b were interviewed for an entire week, the proportion of families buying a given product during the week could not be computed. Only the aggregates based on subsamples 1a and 1b can be compared with those based on subsamples 2, 3, and 4.

Subsample 2. Each of the 6,000 households in this subsample was asked about the quantity and cost of purchases of the seven food products during the preceding calendar week (May 8-14). These households were interviewed during the week of May 15-21. Therefore, households that were interviewed on the first day of the enumeration week were required to remember purchases that might have been made 7 days before; those interviewed on the last day of the enumeration week were required to recall purchases that might have been made 14 days earlier. In this subsample, then, the period of recall ranged between 7 and 13 days for individual families.

Subsample 3. Each of the 6,000 households in this subsample was asked about the quantity and cost of purchases of the seven food products during the 7 days immediately preceding the date of interview. Hence, the maximum recall period was 7 days for each family in this subsample.

Subsample 4. Each of the 6,000 households in this subsample was asked about the quantity and cost of purchases made on each day of the preceding calendar week (May 8-14) for 2 specific commodities--frozen orange juice and butter. The questions used were designed to aid recall by asking about the days on which trips to the store were made and the purchases resulting therefrom. In this subsample, as in subsample 2, the recall period ranged between 7 and 13 days for individual families.

The different approaches were designed, within the limitation of funds available, to permit specific comparisons among the various interview methods. Thus, a comparison of aggregates based on a fixed week, with a recall period of between 7 and 13 days (subsample 2), with the 2- to 4-day recall (subsample 1) would indicate variations introduced by extending the period of recall. Similarly, the use of the past 7 days, with a maximum recall period of 7 days (subsample 3), permits an examination of differences introduced by the use of this time period. Finally, comparisons between subsample 2 and subsample 4 suggest differences introduced through the use of different wording and more intensive probing.

FIELD OPERATIONS

The data in this survey were obtained by interviews with households. The interviewing was done by the same Census Bureau enumerators who are used in the Current Population Survey (CPS). In fact, the questions about the purchase of food items were asked in each household immediately after the regular monthly questions on employment and unemployment. Each interviewer handled all of the approaches; the order of use of each approach, however, was predetermined and was not left to the discretion of the interviewer.

The enumerators were given preliminary training in order to insure uniformity in the interpretation of instructions, the application of survey procedures, and the method of recording the data on the schedule. All of the CPS enumerators had been trained previously and were experienced in methods of interviewing and survey procedures. Therefore, the training for this survey centered entirely on the particular concepts and problems associated with the collection techniques that were being tested. The enumerators in urban areas received 3 hours of home-study training and 3 hours of training in the central office. The office training was given by the same supervisory personnel (generally the district office supervisors) who conduct the regular CPS training. Rural enumerators received 6 hours of home-study training. The training for each group of enumerators included the study of a detailed manual of instructions, completion of home-study exercises, and four practice interviews. In addition, urban interviewers participated in mock interviews and test narratives in the office.

Before the national study was undertaken in May, a pilot study involving 1,000 households was conducted in New York City in March. About 20 interviewers in the New York City district office were trained and observed by members of the Washington staffs of the Bureau of the Census and the Department of Agriculture. On the basis of this pretest, important changes were made in the survey procedures and the training materials. The most important change in procedure was a reduction in the number of different types of schedules tested from 8 to 4. With respect to the training materials, the pretest indicated the importance of stressing that the enumerator was to ask the questions exactly as they appeared on the schedule and to follow the procedures prescribed in the manual. In the pretest the enumerators had a tendency to develop a generalized approach to the survey and to ask, more or less, the same questions in each household. It was recognized that if this tendency could not be overcome in the national survey, the differences in the results of the various procedures would be minimized. Therefore, the major stress in the training sessions for the national survey was on the need for following the procedures called for on the particular schedule being used in a given household. The reduction in the number of the variations to be tested, of course, also assisted materially in achieving this aim.

The housewives interviewed in this survey were generally very cooperative. For example, only about 3 percent of the households interviewed in the CPS did not provide information on the quantity of frozen orange juice purchased. This proportion did not vary significantly among the 4 subsamples. Respondents had

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much more difficulty in estimating the total price paid for food products than they did in remembering the quantity purchased. In each of the subsamples, for example, about 13 percent of the respondents who purchased frozen orange juice did not report the total price paid for this item.

FINDINGS

Internal Comparison of Results

Perhaps the most important finding in this study is that there were few statistically significant differences between the results obtained by the four procedures. There appears to be some tendency for the procedure used in subsample 2 (recall for a fixed week) to produce somewhat higher estimates than those obtained by the other procedures. In most cases, however, even these results do not differ significantly from the others. [4] Table 1, for example, shows the proportion of families and individuals purchasing selected food products during 1 week, as estimated from subsamples 2, 3, and 4. (Estimates for subsample 1 are not shown in this table because none of the families in this subsample reported purchases for the entire week). For each of the food products shown in this table, the proportion for subsample 2 exceeds the one for subsample 3 or 4, although the relative difference between the proportions--8 percent or less--is, item by item, well within the limits of sampling error.

Table 1.--Proportion of families and individuals purchasing selected foods during 1 week, United States, May 1955

Food item	Subsample [1]			Difference between subsamples 2 and 3
	2 (May 8-14)	3 (Last 7 days)	4 (May 8-14)	
	Percent	Percent	Percent	Percent
Frozen orange juice	22.9	21.3	21.0	7.5
Fresh oranges -----	40.9	40.3	--	1.5
All-purpose flour -	24.9	24.2	--	2.9
Coffee ----------	54.9	52.5	--	4.6
Oleomargarine -----	39.8	39.3	--	1.3
Butter ----------	43.6	41.4	41.4	5.3
Lamb ----------	8.5	8.1	--	4.9
Number of families and individuals -	47,788,000	47,788,000	47,788,000	--

[1] For a description of the various subsamples see pp. 6 to 8. Estimates of the proportion purchasing any one food could not be obtained for subsample 1, because none of the families reported purchases for the entire week. Subsample 4 was restricted to 2 food items--frozen orange juice and butter.

[4] The criterion of twice the standard error (odds of 19 in 20 or better) has generally been used in this report to determine if differences between sample estimates are statistically significant. The standard error for the estimates derived from each subsample are shown in tables 10-13, pp. 22 to 23.

The tendency for the procedure used in subsample 2 to produce higher estimates than those obtained by the other procedures was also reflected in data on aggregate quantity purchased and aggregate amount paid, as well as in the proportion of purchasing families. According to table 2, subsample 2 yielded a higher estimate of aggregate quantity purchased than the other subsamples for every item except coffee. Table 3 shows that subsample 2 yielded the highest aggregate value of purchases for every item except butter and lamb. Here again, none of the differences, except those for all-purpose flour, are statistically significant. However, the persistent tendency for the results in subsample 2 to exceed the others indicates that this procedure may produce results that are significantly higher than the others even though this conclusion cannot be firmly established on the basis of the available data. The fact that these differences between subsample 2 and the other subsamples also exist when the data are examined by size of family and residence (see tables 14-23) provides further evidence to support this thesis.

Table 2.--Aggregate quantity of selected foods purchased during 1 week, United States, May 1955

Food item	Subsample 1/				
	1a (Composite May 8-14)	1b (Composite May 8-14)	2 (May 8-14)	3 (Last 7 days)	4 (May 8-14)
Frozen orange juice ---------1,000 oz. --	221,869	226,773	246,248	221,533	216,573
Fresh oranges --Thousands --	271,714	284,562	292,274	282,457	2/
All-purpose flour ---------1,000 lb. --	93,184	95,919	123,895	120,639	2/
Coffee ---------1,000 lb. --	36,694	36,802	35,953	34,999	2/
Oleomargarine --1,000 lb. --	28,694	27,655	29,614	28,587	2/
Butter ---------1,000 lb. --	22,902	22,869	24,001	22,418	23,607
Lamb ----------1,000 lb. --	10,513	9,743	11,597	10,923	2/

1/ For a description of the various subsamples, see pp. 6 to 8.
2/ Subsample 4 was restricted to 2 food items--frozen orange juice and butter.

Among the food items studied, all-purpose flour is the only one for which significantly different estimates were obtained by the use of alternative collection procedures. According to subsample 1a, only 93.2 million pounds of all-purpose flour were purchased by consumers during the week of May 8-14, compared with an estimated 120.6 million pounds for subsample 3 and 123.9 million pounds for subsample 2. The estimates for subsamples 2 and 3 do not differ significantly; however, the estimates for subsamples 1a and 1b are significantly lower than the others.

Currently available evidence does not permit a definitive explanation for the fact that the tested survey procedures produced a significant difference only for flour, and not for other items. The following is one possible explanation for this finding: Flour is the only food product covered in the survey which is a staple. As such, this item is used at some time by most families, but it is probably purchased infrequently even by regular users. If many families in subsample 2 reported flour purchased during an earlier period as a purchase made during the week of May 8-14, then perhaps the estimate for this subsample is too high. However, the results for subsamples 1 and 2 would tend to agree more closely for items like coffee, butter, and oleomargarine, which are purchased frequently by regular users. Consequently, the difference between what the respondent usually purchased and the quantity actually purchased during the survey week would probably be less than the difference for items purchased infrequently. This explanation would support the view that the procedure used in subsample 2 tends to provide overestimates for items which are purchased infrequently. The entire argument, however, is based on several unverified assumptions. Until these assumptions are verified, the above explanation must be regarded only as a tentative hypothesis.

Table 3.--Aggregate expenditures for selected foods during 1 week, United States, May 1955

Food item	Subsample 1/				
	1a (Composite May 8-14)	1b (Composite May 8-14)	2 (May 8-14)	3 (Last 7 days)	4 (May 8-14)
	1,000 dol.	1,000 dol.	1,000 dol.	1,000 dol.	1,000 dol.
Frozen orange juice	7,108	7,380	8,562	8,248	8,123
Fresh oranges	13,053	13,306	15,189	14,450	2/
All-purpose flour	9,266	9,706	13,277	12,906	2/
Coffee	33,409	33,705	34,004	32,844	2/
Oleomargarine	8,630	8,354	9,519	9,290	2/
Butter	17,799	17,638	18,671	17,959	19,336
Lamb	6,387	6,261	8,361	8,517	2/

1/ For a description of the subsamples, see pp. 6 to 8.
2/ Subsample 4 was restricted to 2 food items--frozen orange juice and butter.

As previously indicated, the proportion of purchasing families did not vary appreciably among the various subsamples. For all products, except frozen orange juice, the relative difference among the proportions was less than 5 percent. The variability of the results, however, was considerably greater for the aggregate quantity purchased, and it was greatest of all for

the aggregate amount paid. As table 4 shows, the relative difference between the highest and lowest estimate of aggregate quantity purchased was 33 percent for all-purpose flour, 20 percent for lamb, 14 percent for frozen orange juice, and less than 10 percent for the other items. For aggregate expenditures, the relative difference was over 20 percent for 3 items (frozen orange juice, lamb, and all-purpose flour), between 10 and 20 percent for 3 other items (fresh oranges, oleomargarine, and butter), and less than 10 percent only for coffee. As previously indicated, the large relative differences for flour may be due to the fact that purchases of this product are large and relatively infrequent. Therefore, errors of recall in either quantity or price may have a sizable effect on the data. The significance of the greater variability in the reporting of price than of quantity for most items is difficult to assess from the available data. In view of the significantly higher nonresponse rates for the price data, it is likely that the greater variability of this information reflects greater susceptibility to reporting error.

Table 4.--Range and relative differences in survey estimates of aggregates for selected foods

Aggregate and food item	Range			Difference
	Unit	High	Low	
				Percent
Total quantity purchased:				
Frozen orange juice -----	Mil. oz.	246.2	216.6	13.7
Fresh oranges ----------	Mil.	292.3	271.7	7.6
All-purpose flour -------	Mil. lb.	123.9	93.2	32.9
Coffee -----------------	Mil. lb.	36.8	35.0	5.1
Oleomargarine ----------	Mil. lb.	29.6	27.7	6.9
Butter -----------------	Mil. lb.	24.0	22.4	7.1
Lamb --------------------	Mil. lb.	11.6	9.7	19.6
Total expenditures:				
Frozen orange juice -----	Mil. dol.	8.6	7.1	21.1
Fresh oranges ----------	Mil. dol.	15.2	13.1	16.0
All-purpose flour -------	Mil. dol.	13.3	9.3	43.0
Coffee -----------------	Mil. dol.	34.0	32.8	3.7
Oleomargarine ----------	Mil. dol.	9.5	8.4	13.1
Butter -----------------	Mil. dol.	19.3	17.6	9.7
Lamb --------------------	Mil. dol.	8.5	6.3	34.9

The comparisons of the results of the various subsamples up to this point have been in terms of either the proportion of purchasing families or the aggregates purchased. Comparisons of the average quantity bought by a purchasing family during a week, the average expenditure per purchasing family and the unit price per item are shown in tables 5, 6, and 7. It is evident from these tables that there is no significant difference in the averages for the various procedures. Neither is there any evidence of a pattern of differences, which was suggested by the data on the proportions and aggregates. The difference in the average quantity purchased was less than one-tenth of a pound for 5 of the items (flour, coffee, oleomargarine, butter, and lamb). Differences in the average expenditures were less than 2 cents for 3 items (flour, coffee, oleomargarine), and only 3 cents for frozen orange juice and fresh oranges. Much the same was true for unit prices--differences were within a narrow range (3 to 4 cents) for 5 of the food items; differences larger than this were recorded only for fresh oranges and lamb (6 and 17 cents, respectively). These facts suggest that the observed differences in the aggregate quantity purchased and aggregate expenditures for the various procedures may be due primarily to differences in the proportion of purchasing families reported rather than to differences in either the quantity purchased or the price paid.

Table 5.--Average quantity of selected foods purchased during 1 week, per purchasing family, United States, May 1955

Food item	Subsample 1/		
	2 (May 8-14)	3 (Last 7 days)	4 (May 8-14)
Frozen orange juice --ounces ---	22.5	21.8	21.6
Fresh oranges --------number ---	15.0	14.7	2/
All-purpose flour ----pounds ---	10.4	10.4	2/
Coffee ----------pounds ---	1.4	1.4	2/
Oleomargarine --------pounds ---	1.6	1.5	2/
Butter ----------pounds ---	1.2	1.1	1.2
Lamb ----------pounds ---	2.9	2.8	2/

1/ For a description of the various subsamples, see pp.6 to 8.
2/ Subsample 4 was restricted to 2 food items--frozen orange juice and butter.

Table 6.--Average expenditure for selected foods purchased during 1 week, per purchasing family, United States, May 1955

Food item	Subsample 1/		
	2 (May 8-14)	3 (Last 7 days)	4 (May 8-14)
	Dols.	Dols.	Dols.
Frozen orange juice ----	0.78	0.81	0.81
Fresh oranges ----------	.78	.75	2/
All-purpose flour ------	1.12	1.11	2/
Coffee -----------------	1.30	1.31	2/
Oleomargarine ----------	.50	.49	2/
Butter -----------------	.90	.91	.98
Lamb -------------------	2.06	2.21	2/

1/ For a description of the various subsamples, see pp. 6 to 8.
2/ Subsample 4 was restricted to 2 food items--frozen orange juice and butter.

Table 7.--Unit prices for selected foods during 1 week, United States, May 1955

Food item	Subsample 1/				
	1a (Composite May 8-14)	1b (Composite May 8-14)	2 (May 8-14)	3 (Last 7 days)	4 (May 8-14)
	Cents	Cents	Cents	Cents	Cents
Frozen orange juice --------- 6 oz. --	19	20	21	22	22
Fresh oranges -- doz. --	58	56	62	61	2/
All-purpose flour --------- lb. --	10	10	11	11	2/
Coffee --------- lb. --	91	92	95	94	2/
Oleomargarine -- lb. --	30	30	32	32	2/
Butter --------- lb. --	78	77	78	80	82
Lamb ---------- lb. --	61	64	72	78	2/

1/ For a description of the various subsamples, see pp. 6 to 8.
2/ Subsample 4 was restricted to 2 food items--frozen orange juice and butter.

Comparison of Survey Results with Independent Estimates

Comparison of the results obtained in this study with available independent estimates for roughly the same time-period reveals much more striking differences than those noted among the various procedures used in this survey. Some indication of the extent of these differences is shown in table 8, which presents fixed week recall data from this study (subsample 2--week of May 8-14) with those obtained from a household record-keeping panel. 5/ A further comparison with industry disappearance estimates on an annual basis is shown in table 9.

Each of these sources, of course, utilizes highly different approaches in obtaining the data. The panel estimates are derived from a national sample of household consumers who keep records of their purchases. Respondents are instructed to enter in the "diary" all purchases made during the reporting period--a calendar week--as soon as they are made. Items recorded are the date of purchase, brand name, quantity purchased, unit weight, and unit price. The number and type of items included varies from time to time but, in any case, far exceeds that used in the present study. The "diaries" are mailed in at the conclusion of each week. Points, which are redeemable for gifts, are awarded to the households for participation, promptness, and regular reporting. Estimates are published on a 4-week basis; therefore, for purposes of comparability, the data presented in this report are adjusted to an "average week" arrived at by dividing the monthly aggregates by four.

As can be seen, the total quantity purchased during an average week in May, as shown by the panel data, is substantially below that recorded for the same food items in the current study. For example, according to the panel data, about 163.5 million ounces of frozen orange juice were purchased during an average week, compared with the 246.2 million ounces reported by families in subsample 2. The same pattern was found for both total expenditures and unit prices. In each case and for each food item, the estimates derived from household record keeping are markedly lower than those obtained by the techniques used in this survey.

5/ The published panel data presented in this report were collected by the Market Research Corporation of America (MRCA), under contract with the U. S. Department of Agriculture.

Table 8.--Comparison of data collected by two methods on consumer purchases of selected foods during 1 week, United States, May 1955

Source	Butter	Oleomargarine	Fresh oranges	Frozen orange juice
	Mil. lb.	Mil. lb.	Million	Mil. oz.
Total quantity purchased:				
Subsample 2	24.0	29.6	292.3	246.2
Panel data 1/	15.6	23.5	138.2	163.5
	1,000 dol.	1,000 dol.	1,000 dol.	1,000 dol.
Total expenditures:				
Subsample 2	18,671	9,519	15,189	8,562
Panel data 1/	10,405	5,805	4,929	4,169
	Cents per lb.	Cents per lb.	Cents per doz.	Cents per 6-oz. can
Unit price:				
Subsample 2	77.8	32.1	62.4	20.8
Panel data 1/	66.7	24.7	42.8	15.3

1/ Estimates are presented in the May 1955 issues of Household Purchases of Butter, Cheese, Nonfat Dry Milk Solids, and Margarine and Consumer Purchases of Fruits and Juices, U. S. Department of Agriculture. Estimates for an average week were derived by adjusting the published monthly data to a weekly basis by dividing by 4. The published unit price was then applied to the derived quantity to obtain aggregate expenditures for an average week.

Table 9.--Comparison of data on consumer purchases collected by two methods and industry estimates of domestic disappearance, selected foods, United States, 1955

Source	Quantity purchased			
	Butter	Oleomargarine	Fresh oranges	Frozen orange juice
	Mil. lb.	Mil. lb.	Million	Mil. oz.
Panel (Household use) 1/	829	1,246	6,627	8,416
Industry estimates of domestic disappearance				
(All uses) 2/	1,296	1,322	10,910	3/ 7,699
Subsample 2 4/	1,275	1,569	14,016	12,673

1/ Annual aggregates were derived by summing quarterly aggregates as presented in the quarterly reports for 1955 on Consumer Purchases of Fruits and Juices, by Regions and Retail Outlets and Household Purchases of Butter, Cheese, Nonfat Dry Milk Solids, and Margarine, U. S. Department of Agriculture.

2/ Industry estimates of domestic disappearance are based on adjusted production estimates by end use. A discussion of these data for the products shown is presented in the text, page 18.

3/ Retail-size packages only.

4/ The data shown for subsample 2 are projections of the weekly data to an annual base. The technique followed assumed a fixed ratio between the data obtained through the use of subsample 2 and the panel data. For example, the estimate of 1,275 million pounds of butter $= (829)\left(\frac{24.0}{15.6}\right)$

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As noted earlier, table 9 presents annual aggregate consumer purchases for 1955, as derived from published panel data, estimates of indicated domestic disappearance from commercial supplies, and an annual projection of subsample 2. The disappearance estimates based on industry data shown in this table are derived as follows:

1. Frozen orange juice concentrate.--This estimate refers to the total production for 1955 in retail-size packages (12 ounces or less), adjusted for changes in stock holdings over the year and excluding estimates of military use and exports. Since these data are for the retail-size pack, relatively little of the total is assumed to go into commercial or institutional use.

2. Fresh oranges.--Total shipment of oranges (in boxes) for the 1955 crop season, which covered the period from October 1, 1954, to September 30, 1955, were adjusted for exports and converted to units on the basis of 209 oranges to the box. The resulting data include, in addition to home use, a considerable volume of oranges used by restaurants, drug stores, refreshment stands, and other eating places either in fruit form or for preparing fresh juice; oranges used commercially in the preparation of cakes, pies, and other products; and those consumed by the Armed Forces.

3. Butter and oleomargarine.--The industry disappearance data shown for butter and oleomargarine are production estimates for 1955 adjusted for changes in stocks and excluding use by the Armed Forces and exports. Butter produced on farms is also excluded from the total. Included in the estimates are institutional or commercial consumption, and all household use of butter and oleomargarine. The estimate for butter also includes the quantity distributed by the Department of Agriculture under Secs. 32 and 416 (School lunch, Welfare, and similar programs).

As described above, the survey (May 1955) and the panel data refer to purchases for meals prepared in the home. The projection of subsample 2 assumes that the ratio of the survey estimates to the panel estimates for an average week in May holds throughout the year.

On an annual basis, the panel estimates, with the exception of frozen orange juice, are lower than indicated industry disappearance. On the other hand, the admittedly rough projection of subsample 2 to an annual level results in estimates which, for 3 out of the 4 food items, are substantially above those obtained from industry sources.

There is no objective basis for appraising the validity of each of these independent estimates at present. However, the differences are sufficiently large to be disquieting and to merit further study. The evidence suggests that an investigation into the differences resulting from the use of a diary and a recall interview procedure in a one-time survey would be extremely useful.

APPENDIX

Definitions

Coverage.--The data collected in the experiment and presented in this report relate only to the civilian noninstitutional population of the United States residing in dwelling units.

Dwelling unit.--A dwelling unit is defined, in general, as a house, apartment, or other group of rooms, or a single room, occupied or intended for occupancy as separate living quarters by a family or other group of persons living together or a person living alone. Large rooming houses, dormitories, and YMCA and similar buildings are not regarded as dwelling units.

Household.--For purposes of this study, a household includes the head of the household and all his relatives living with him. Thus, information on food purchases was obtained for the group consisting of the head of the household, his wife, or other relatives by blood, marriage, or adoption, even if some of the food purchased by these individuals was used by boarders or other persons not related to the head. Lodgers, servants, and other persons not related to the head were not included as members of the household. Only those households residing in places which met the dwelling unit definition were included in the survey.

Purchase.--The term "purchase" refers only to food bought for use in the home and carried or delivered to the home. Food purchased for storage in a freezer or elsewhere is considered as a purchase for use in the home.

Frozen orange juice.--This refers only to frozen concentrated orange juice. Single strength juices (that is, juice to which water is not added) or orange and grapefruit blends, tangerine juice, orange drinks, and ades are not included.

Fresh oranges.--Includes all oranges--seedless or with seeds--Navel, Temple, Valencia, and so forth. Tangerines are not considered to be oranges.

All-purpose flour.--Includes only white "family flour." Excluded are rye, wholewheat, or other special flour; prepared flour mixes for cakes, pancakes, waffles, etc.; flour sold as "cake" or "pastry" flour, although the all-purpose flour may be used for such purposes.

Fresh coffee.--Fresh coffee includes vacuum-packed ground coffee, as well as beans, whether custom-ground in a store or purchased to grind at home, decaffeinated, or flavored with chicory. Excluded are instant coffee, frozen coffee, or coffee substitutes.

Oleomargarine.--Includes both colored and uncolored oleomargarine.

Butter.--Includes purchased butter that is sweet, salted, or whipped, in pound packages, in quarter-pound or half-pound sticks or bought from a bulk display. Excluded are oleomargarine, butter substitutes, or other table spreads, even if they contain some butter, and butter made at home.

Lamb.--All forms of lamb--chops, steaks, roasts (shoulder, leg or rib), stew or soup meat, flank, lamb patties with bacon, etc.--are included. Weight is as purchased, with or without bone.

Urban and rural residence.--The definition of urban and rural areas used in the present study is the same as that used in the 1950 census. According to the new definition adopted for use in the 1950 census, the urban population comprises all persons living in (a) places of 2,500 inhabitants or more incorporated as cities, boroughs, and villages, (b) incorporated towns of 2,500 inhabitants or more, except in New England, New York, and Wisconsin, where "towns" are simply minor civil divisions of counties, (c) the densely settled urban fringe, including both incorporated and unincorporated areas, around cities of 50,000 or more; and (d) incorporated places of 2,500 inhabitants or more outside any urban fringe. The remaining population is classified as rural. The territory classified as urban is the same as that in the 1950 census, as it was not feasible to take into account population growth in certain communities or annexations of territory since the census date.

Farm and nonfarm residence.--The rural population is subdivided into rural-farm population, which comprises all rural residents living on farms, and the rural-nonfarm population, which comprises the remaining rural population. In the 1950 census, as in the present survey, persons on "farms" who pay cash rent for their house and yard only are classified as nonfarm.

Source of Data

The estimates presented in this report are based on data obtained in the monthly population sample survey of the Bureau of the Census. The sample design used in the May 1955 survey is spread over 230 sample areas comprising 453 counties and independent cities. A total of 24,000 to 26,000 dwelling units and other living quarters are designated for the sample at any time, and completed interviews are obtained each month from about 20,000 to 22,000 households. Of the rest, about 500 to 1,000 are households for which information should be obtained but is not (i.e., households temporarily absent, households living in areas with impassable roads, etc.); and the others are vacant dwellings or households not to be enumerated for the survey.

In order to account for the 500 to 1,000 households for which no information was recorded because no interview could be obtained during the week of the enumeration, the weights assigned to the schedules for other households of similar characteristics residing in the same sample areas were increased accordingly. Substitutes were not made for families which did not report on the purchase of a given food product. Estimates of the number of families purchasing any given commodity were obtained by distributing the cases not reporting in the same proportion as those that did report.

The average per family was then obtained for reporting families, and estimates of the aggregate quantities purchased and aggregate expenditures were obtained by multiplying the total number of families in the United States by the average per family.

The estimating procedure used in this survey involved the inflation of weighted sample results to independent estimates of the civilian noninstitutional population of the United States by age, color, and sex. These independent estimates were based on statistics from the 1950 Census of Population; statistics of births, deaths, immigration, and emigration; and statistics of the strength of the Armed Forces.

Reliability of Estimates

Since the estimates are based on a sample, they may differ somewhat from the figures that would have been obtained if a complete census had been taken using the same schedules, instructions, and enumerators. The standard error is primarily a measure of sampling variability, that is, the variations that might occur by chance because only a sample of the population is surveyed. As calculated for this report, the standard error also partially measures the effect of response and enumeration errors, but does not reflect any systematic biases in the data. The chances are about 68 out of 100 that an estimate from the sample would differ from a complete census by less than the standard error. The chances are about 95 out of 100 that the difference would be less than twice the standard error and about 99 out of 100 that it would be less than 2-1/2 times as large.

The figures presented in tables 10 to 13 are approximations of the standard errors for the total purchases of the various food items. In order to derive the standard errors at a moderate cost, a number of approximations were required. (The most serious of these approximations involved the construction of an assumed exact distribution of purchases based upon the tabulations which were made by class intervals only.) As a result, these tables should be interpreted as providing an indication of the order of magnitude of the standard errors rather than as the precise standard error for any specific item.

Tables 11 and 13 show the standard errors for the total purchases of each item. However, in order to compare purchases of an item as reported by two different subsample groups, the size of the standard error of each group and the correlation between the two must be taken into account. Table 12 reflects these factors and shows the standard errors of the differences between the aggregate quantity consumed of each item for all possible pairs of subsamples.

For example, table 2 shows that the total quantity of frozen orange juice purchased as reported by households in subsample 1a was 221,869,000 ounces. In table 11 it can be seen that the standard error of this quantity is about 18,000,000 ounces. Consequently, the chances are about 68 out of 100 that if a complete census of all households in the country had been taken

using the procedure followed in subsample 1a, the total quantity of frozen orange juice purchased would have differed by less than 18,000,000 from the 221,869,000 ounces. Similarly, the chances are about 95 out of 100 that a complete census would have differed from the sample estimate by less than 36,000,000. Similarly, the difference between the quantity of all-purpose flour reported by households in subsample 1a and subsample 2 is 30,265,000 pounds. The standard error of this difference as shown by table 12 is 8,300,000 pounds. The difference is consequently about 3.65 times the standard error. The chances are less than 1 in 1,000 that this difference could have arisen by chance because of sampling variability.

Table 10.--Standard error of percentage of families and individuals purchasing selected foods

Food item	Percentage as reported in subsample 2	Standard error of percentage reported in subsample 2, 3, or 4
	Percent	Percent
Frozen orange juice -----	22.9	0.9
Fresh oranges ----------	40.9	1.0
All-purpose flour -------	24.9	.9
Fresh coffee -----------	54.9	1.1
Oleomargarine ----------	39.8	1.0
Butter -----------------	43.6	1.1
Fresh lamb -------------	8.5	.6

Table 11.--Standard error of aggregate quantity of selected foods purchased

Food item	Quantity as reported by households in subsample 1b	Standard error of quantity reported in subsamples 1a or 1b	Quantity as reported by households in subsample 2	Standard error of quantity reported in subsamples 2, 3, or 4
	Thousands	Thousands	Thousands	Thousands
Frozen orange juice	226,773	18,000	246,248	10,000
Fresh oranges -----	284,562	20,000	292,274	11,000
All-purpose flour -	95,919	8,000	123,895	5,900
Fresh coffee ------	36,802	1,600	35,953	800
Oleomargarine -----	27,655	1,700	29,614	900
Butter -----------	22,869	1,100	24,001	700
Fresh lamb --------	9,743	1,400	11,597	1,000

Table 12.--Standard error of difference in aggregate quantity purchased between any two subsamples

Food item	Standard error of difference between households in subsamples		
	1a and 1b	2, 3, and 4	1a and 2, 3, or 4 or 1b and 2, 3, or 4
	Thousands	Thousands	Thousands
Frozen orange juice--	21,000	12,000	17,000
Fresh oranges -------	23,000	13,000	19,000
All-purpose flour ---	9,500	7,000	8,300
Fresh coffee --------	1,900	900	1,500
Oleomargarine -------	1,900	1,000	1,600
Butter --------------	1,300	800	1,100
Fresh lamb ----------	1,600	1,100	1,400

Table 13.--Standard error of aggregate expenditures for selected foods purchased

Food item	Expenditures as reported by households in subsample 1b	Standard error of expenditures as reported in subsamples 1a or 1b	Expenditures as reported by households in subsample 2	Standard error of expenditures as reported in subsamples 2, 3, or 4
	1,000 dol.	1,000 dol.	1,000 dol.	1,000 dol.
Frozen orange juice -	7,308	580	8,562	360
Fresh oranges -------	13,306	920	15,189	560
All-purpose flour ---	9,706	810	13,277	640
Fresh coffee --------	33,705	1,500	34,004	730
Oleomargarine -------	8,354	500	9,519	280
Butter --------------	17,638	860	18,671	510
Fresh lamb ----------	6,261	870	8,361	700

Tables

Table 14.--Percentage of primary families and individuals purchasing selected foods during 1 week, United States, farm, and nonfarm, May 1955

Residence and subsample	Frozen orange juice	Fresh oranges	All-purpose flour	Coffee	Oleomargarine	Butter	Lamb
UNITED STATES							
Total primary families and individuals --thousands--	47,788	47,788	47,788	47,788	47,788	47,788	47,788
Subsample 2 --percent---	22.9	40.9	24.9	54.9	39.8	43.6	8.5
Subsample 3 --percent---	21.3	40.3	24.2	52.5	39.3	41.4	8.1
Subsample 4 --percent---	21.0	1/	1/	1/	1/	41.4	1/
URBAN AND RURAL NONFARM							
Total primary families and individuals --thousands--	42,243	42,243	42,243	42,243	42,243	42,243	42,243
Subsample 2 --percent---	24.8	42.0	23.3	54.4	41.1	45.9	9.5
Subsample 3 --percent---	23.1	41.6	22.4	51.9	40.9	43.6	9.0
Subsample 4 --percent---	22.6	1/	1/	1/	1/	43.0	1/
RURAL FARM							
Total primary families and individuals --thousands--	5,545	5,545	5,545	5,545	5,545	5,545	5,545
Subsample 2 --percent---	8.8	32.4	37.1	58.5	29.6	24.6	1.4
Subsample 3 --percent---	7.8	31.2	38.3	56.6	27.5	24.6	0.7
Subsample 4 --percent---	8.4	1/	1/	1/	1/	29.1	1/

1/ Information not obtained for this subsample.

Table 15.--Aggregate quantity of selected foods purchased during 1 week by primary families and individuals, United States, farm, and nonfarm, May 1955

Residence and subsample	Frozen orange juice	Fresh oranges	All-purpose flour	Fresh coffee	Oleomargarine	Butter	Lamb
	1,000 oz.	Thousands	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.	1,000 lb.
UNITED STATES							
Subsample 1a ------	221,869	271,714	93,184	36,694	28,694	22,902	10,513
Subsample 1b ------	226,773	284,562	95,919	38,802	27,655	22,869	9,743
Subsample 2 -------	246,248	292,274	123,895	35,953	29,614	24,001	11,597
Subsample 3 -------	221,533	282,457	120,639	34,999	28,587	22,418	10,923
Subsample 4 -------	216,573	1/	1/	1/	1/	23,607	1/
NONFARM							
Subsample 1a ------	211,175	254,080	61,964	32,853	26,124	19,963	10,172
Subsample 1b ------	214,538	263,779	66,826	32,601	25,360	20,360	9,334
Subsample 2 -------	236,479	263,520	82,559	31,189	26,864	21,589	11,220
Subsample 3 -------	212,221	254,569	77,349	30,687	26,115	19,919	10,800
Subsample 4 -------	206,784	1/	1/	1/	1/	20,492	1/
FARM							
Subsample 1a ------	10,694	17,634	31,220	3,841	2,570	2,939	341
Subsample 1b ------	12,235	20,783	29,093	4,201	2,295	2,509	409
Subsample 2 -------	2/	28,754	41,336	4,764	2,750	2,412	2/
Subsample 3 -------	2/	27,918	43,290	4,312	2,472	2,499	2/
Subsample 4 -------	2/	1/	1/	1/	1/	3,115	1/

1/ Information not obtained for this subsample.
2/ Fewer than 100 purchasers in the sample reported the quantity purchased.

Table 16.--Aggregate expenditure for selected foods during 1 week by primary families and individuals, United States, farm, and nonfarm, May 1955

Residence and subsample	Frozen orange juice	Fresh oranges	All-purpose flour	Fresh coffee	Oleomargarine	Butter	Lamb
	1,000 dol.	1,000 dol.	1,000 dol.	1,000 dol.	1,000 dol.	1,000 dol.	1,000 dol.
UNITED STATES							
Subsample 1a ------	7,108	13,053	9,266	33,409	8,630	17,799	6,387
Subsample 1b ------	7,380	13,306	9,706	33,705	8,354	17,638	6,261
Subsample 2 -------	8,562	15,189	13,277	34,004	9,519	18,671	8,361
Subsample 3 -------	8,248	14,450	12,906	32,844	9,290	17,959	8,517
Subsample 4 -------	8,123	1/	1/	1/	1/	19,336	1/
NONFARM							
Subsample 1a ------	6,805	12,200	6,369	29,891	7,908	15,916	6,260
Subsample 1b ------	7,020	12,589	6,976	29,865	7,694	16,024	6,078
Subsample 2 -------	8,204	13,923	9,454	29,543	8,688	17,002	8,091
Subsample 3 -------	7,929	13,193	8,765	28,729	8,489	16,273	8,411
Subsample 4 -------	7,801	1/	1/	1/	1/	17,265	1/
FARM							
Subsample 1a ------	303	852	2,896	3,518	722	1,883	128
Subsample 1b ------	360	717	2,730	3,840	660	1,614	183
Subsample 2 -------	2/	1,266	3,823	4,461	831	1,670	2/
Subsample 3 -------	2/	1,257	4,141	4,115	802	1,685	2/
Subsample 4 -------	2/	1/	1/	1/	1/	2,071	1/

1/ Information not obtained for this subsample.
2/ Fewer than 100 purchasers in the sample reported the amount paid.

Table 17.--Average quantity, per purchasing family, of selected foods purchased during 1 week by primary families and individuals, United States, farm, and nonfarm, May 1955

Residence and subsample	Frozen orange juice	Fresh oranges	All-purpose flour	Fresh coffee	Oleomargarine	Butter	Lamb
	Oz.	No.	Lb.	Lb.	Lb.	Lb.	Lb.
UNITED STATES							
Subsample 2 -------	22.5	15.0	10.4	1.4	1.6	1.2	2.9
Subsample 3 -------	21.8	14.7	10.4	1.4	1.5	1.1	2.8
Subsample 4 -------	21.6	1/	1/	1/	1/	1.2	1/
NONFARM							
Subsample 2 -------	22.6	14.9	8.4	1.4	1.6	1.1	2.8
Subsample 3 -------	21.8	14.5	8.2	1.4	1.5	1.1	2.8
Subsample 4 -------	21.7	1/	1/	1/	1/	1.1	1/
FARM							
Subsample 2 -------	2/	16.0	20.1	1.5	1.7	1.7	2/
Subsample 3 -------	2/	16.2	20.4	1.4	1.6	1.8	2/
Subsample 4 -------	2/	1/	1/	1/	1/	1.9	1/

1/ Information not obtained for this subsample.
2/ Fewer than 100 purchasers in the sample reported the quantity purchased.

Table 18.--Average expenditure, per purchasing family, for selected foods purchased during 1 week by primary families and individuals, United States, farm, and nonfarm, May 1955

Residence and subsample	Frozen orange juice	Fresh oranges	All-purpose flour	Fresh coffee	Oleomargarine	Butter	Lamb
	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.
UNITED STATES							
Subsample 2 ------	0.78	0.78	1.12	1.30	0.50	0.90	2.06
Subsample 3 ------	.81	.75	1.11	1.31	.49	.91	2.21
Subsample 4 ------	.81	1/	1/	1/	1/	.98	1/
NONFARM							
Subsample 2 ------	.78	.78	.96	1.29	.50	.88	2.03
Subsample 3 ------	.81	.75	.93	1.31	.49	.88	2.20
Subsample 4 ------	.82	1/	1/	1/	1/	.95	1/
FARM							
Subsample 2 ------	2/	.71	1.86	1.38	.51	1.17	2/
Subsample 3 ------	2/	.73	1.95	1.31	.53	1.24	2/
Subsample 4 ------	2/	1/	1/	1/	1/	1.28	1/

1/ Information not obtained for this subsample.
2/ Fewer than 100 purchasers in the sample reported the amount paid.

Table 19.--Percentage of primary families and individuals purchasing selected foods during 1 week, by size of family, United States, farm, and nonfarm, May 1955

Residence, food item, and subsample	Primary families and individuals	Families by size				Individuals
		Total	2 persons	3 persons	4 or more persons	
UNITED STATES	Thousand	Thousand	Thousand	Thousand	Thousand	Thousand
Number	47,788	41,713	13,487	9,468	18,758	6,075
Frozen orange juice:	Percent	Percent	Percent	Percent	Percent	Percent
Subsample 2	22.9	24.6	18.2	24.4	29.4	11.1
Subsample 3	21.3	22.6	16.1	24.3	26.4	12.3
Subsample 4	21.0	22.4	15.4	21.7	27.8	11.0
Fresh oranges:						
Subsample 2	40.9	43.5	34.4	42.0	50.8	23.1
Subsample 3	40.3	42.7	35.8	43.4	47.3	24.0
All-purpose flour:						
Subsample 2	24.9	27.1	21.0	23.0	33.5	9.5
Subsample 3	24.2	26.4	20.9	22.9	32.0	9.7
Coffee:						
Subsample 2	54.9	58.1	51.3	57.6	63.2	32.9
Subsample 3	52.5	55.4	49.5	55.5	59.7	32.2
Oleomargarine:						
Subsample 2	39.8	42.3	35.8	39.0	48.7	22.3
Subsample 3	39.3	41.4	32.1	40.7	48.6	24.9
Butter:						
Subsample 2	43.6	45.4	44.3	47.9	44.8	31.4
Subsample 3	41.4	43.3	43.5	46.6	41.4	28.8
Subsample 4	41.4	43.0	42.5	42.4	43.6	33.8
Lamb:						
Subsample 2	8.5	8.8	9.0	8.5	8.9	6.4
Subsample 3	8.1	8.2	9.2	9.6	6.8	7.0

Table 19.--Percentage of primary families and individuals purchasing selected foods during 1 week, by size of family, United States, farm, and nonfarm, May 1955--continued

Residence, food item and subsample	Primary families and individuals	Families by size				Individuals
		Total	2 persons	3 persons	4 or more persons	
NONFARM	Thousand	Thousand	Thousand	Thousand	Thousand	Thousand
Number	42,243	36,495	11,912	8,474	16,109	5,748
Frozen orange juice:	Percent	Percent	Percent	Percent	Percent	Percent
Subsample 2	24.8	26.8	19.4	26.1	32.7	11.6
Subsample 3	23.1	24.7	17.3	26.2	29.3	13.0
Subsample 4	22.6	24.4	16.7	23.1	30.7	11.4
Fresh oranges:						
Subsample 2	42.0	44.9	35.8	42.9	52.7	23.4
Subsample 3	41.6	44.2	37.0	45.4	48.9	24.7
All-purpose flour:						
Subsample 2	23.3	25.4	20.4	21.6	31.1	9.6
Subsample 3	22.4	24.5	19.8	21.4	29.6	8.9
Coffee:						
Subsample 2	54.4	57.8	50.7	58.1	63.0	32.6
Subsample 3	51.9	55.1	49.1	55.1	59.5	31.9
Oleomargarine:						
Subsample 2	41.1	43.9	36.5	40.5	51.2	23.1
Subsample 3	40.9	43.4	32.8	42.6	51.6	25.3
Butter:						
Subsample 2	45.9	48.1	46.4	50.3	48.2	32.1
Subsample 3	43.6	45.9	46.4	49.1	43.8	29.4
Subsample 4	43.0	44.9	44.0	43.9	46.1	31.2
Lamb:						
Subsample 2	9.5	9.9	10.0	9.4	10.0	6.7
Subsample 3	7.1	9.3	10.3	10.8	7.8	7.4

Table 19.--Percentage of primary families and individuals purchasing selected foods during 1 week, by size of family, United States, farm, and nonfarm, May 1955--continued

Residence, food item, and subsample	Primary families and individuals	Families by size				Individuals
		Total	2 persons	3 persons	4 or more persons	
FARM	Thousand	Thousand	Thousand	Thousand	Thousand	Thousand
Number	5,545	5,218	1,575	994	2,649	327
Frozen orange juice:	Percent	Percent	Percent	Percent	Percent	Percent
Subsample 2	8.8	9.2	9.4	9.4	9.0	1/
Subsample 3	7.8	8.2	6.8	8.6	8.9	1/
Subsample 4	8.4	8.8	5.9	10.0	10.1	1/
Fresh oranges:						
Subsample 2	32.4	33.4	23.5	34.0	39.0	1/
Subsample 3	31.2	32.4	26.8	26.6	37.9	1/
All-purpose flour:						
Subsample 2	37.1	38.9	25.3	35.2	48.4	1/
Subsample 3	38.3	39.2	28.8	36.3	46.5	1/
Coffee:						
Subsample 2	58.5	59.8	56.3	53.4	64.4	1/
Subsample 3	56.6	57.9	52.8	58.6	60.6	1/
Oleomargarine:						
Subsample 2	29.6	31.0	30.2	25.8	33.3	1/
Subsample 3	27.5	27.9	26.4	24.6	30.0	1/
Butter:						
Subsample 2	25.6	26.1	28.2	28.0	24.2	1/
Subsample 3	24.6	25.0	20.8	25.6	27.2	1/
Subsample 4	29.1	29.5	31.2	30.0	28.3	1/
Lamb:						
Subsample 2	1.4	1.5	1.8	0.8	1.6	1/
Subsample 3	0.7	0.6	0.6	1/	0.9	1/

1/ Fewer than 100 cases in the sample reported on whether or not they purchased this item.

Table 20.--Aggregate quantity of selected foods purchased during 1 week by primary families and individuals, by size of family, United States, farm, and nonfarm, May 1955

Residence, food item, and subsample	Primary families and individuals	Families by size				Individuals
		Total	2 persons	3 persons	4 or more persons	
UNITED STATES						
Frozen orange juice:						
Subsample 1a --1,000 oz. ---	221,869	206,429	45,524	41,498	119,407	15,440
Subsample 1b --1,000 oz. ---	226,773	210,830	47,657	46,619	116,554	15,943
Subsample 2 ---1,000 oz. ---	246,248	231,935	47,923	43,269	140,743	1/
Subsample 3 ---1,000 oz. ---	221,533	212,012	43,140	44,373	124,499	1/
Subsample 4 ---1,000 oz. ---	216,573	205,428	37,504	41,314	126,610	1/
Fresh oranges:						
Subsample 1a --Thousands ---	271,714	251,761	62,175	56,715	132,871	19,953
Subsample 1b --Thousands ---	284,562	266,835	67,515	64,031	135,289	17,727
Subsample 2 ---Thousands ---	292,274	276,861	59,052	55,805	162,004	15,413
Subsample 3 ---Thousands ---	282,457	267,840	64,467	55,893	147,480	14,647
All-purpose flour:						
Subsample 1a --1,000 lb. ---	93,184	90,880	16,270	16,024	58,586	2,304
Subsample 1b --1,000 lb. ---	95,919	93,328	17,070	18,757	57,501	2,591
Subsample 2 ---1,000 lb. ---	123,895	120,114	24,667	18,368	77,079	1/
Subsample 3 ---1,000 lb. ---	120,639	116,874	23,929	17,755	75,190	1/
Coffee:						
Subsample 1a --1,000 lb. ---	36,694	34,363	9,820	8,052	16,491	2,331
Subsample 1b --1,000 lb. ---	36,802	34,439	10,383	8,587	15,469	2,363
Subsample 2 ---1,000 lb. ---	35,953	33,657	9,238	7,198	17,221	2,296
Subsample 3 ---1,000 lb. ---	34,999	32,663	9,009	7,078	16,576	2,336
Oleomargarine:						
Subsample 1a --1,000 lb. ---	28,694	26,816	5,920	5,035	15,861	1,878
Subsample 1b --1,000 lb. ---	27,655	26,137	5,488	5,117	15,532	1,518
Subsample 2 ---1,000 lb. ---	29,614	28,046	6,798	5,308	15,940	1,568
Subsample 3 ---1,000 lb. ---	28,587	26,942	5,679	5,388	15,875	1,645
Butter:						
Subsample 1a --1,000 lb. ---	22,902	21,814	6,409	4,748	10,657	1,088
Subsample 1b --1,000 lb. ---	22,869	21,648	6,452	5,296	9,900	1,221
Subsample 2 ---1,000 lb. ---	24,001	22,390	6,219	4,916	11,255	1,611
Subsample 3 ---1,000 lb. ---	22,418	20,971	5,694	4,867	10,410	1,447
Subsample 4 ---1,000 lb. ---	23,607	22,010	5,961	4,822	11,227	1,597
Lamb:						
Subsample 1a --1,000 lb. ---	10,513	10,085	2,520	3,037	4,528	428
Subsample 1b --1,000 lb. ---	9,743	9,016	2,619	2,274	4,123	727
Subsample 2 ---1,000 lb. ---	11,597	10,718	3,256	1/	5,574	1/
Subsample 3 ---1,000 lb. ---	10,923	9,970	2,914	2,397	4,659	953

Table 20.--Aggregate quantity of selected foods purchased during 1 week by primary families and individuals, by size of family, United States, farm, and nonfarm, May 1955--continued

Residence, food item, and subsample	Primary families and individuals	Families by size				Individuals
		Total	2 persons	3 persons	4 or more persons	
NONFARM						
Frozen orange juice:						
Subsample 1a --1,000 oz. ---	211,175	195,735	43,107	39,451	113,177	15,440
Subsample 1b --1,000 oz. ---	214,538	198,595	44,310	44,710	109,575	15,943
Subsample 2 ---1,000 oz. ---	236,479	222,457	44,897	41,847	135,713	1/
Subsample 3 ---1,000 oz. ---	212,221	202,700	41,289	42,071	119,340	1/
Subsample 4 ---1,000 oz. ---	206,784	195,749	35,608	40,094	120,047	1/
Fresh oranges:						
Subsample 1a --Thousands ---	254,080	234,190	60,199	53,575	120,416	19,890
Subsample 1b --Thousands ---	263,779	246,124	64,841	60,879	120,404	17,655
Subsample 2 ---Thousands ---	263,520	248,944	54,271	50,613	144,060	14,576
Subsample 3 ---Thousands ---	254,569	240,519	58,186	52,038	130,295	14,050
All-purpose flour:						
Subsample 1a --1,000 lb. ---	61,964	59,950	10,345	11,371	38,234	2,014
Subsample 1b --1,000 lb. ---	66,826	64,567	11,531	13,744	39,292	2,259
Subsample 2 ---1,000 lb. ---	82,559	79,224	18,057	12,856	48,311	1/
Subsample 3 ---1,000 lb. ---	77,349	74,349	17,649	10,887	45,813	1/
Coffee:						
Subsample 1a --1,000 lb. ---	32,853	30,590	8,896	7,153	14,541	2,263
Subsample 1b --1,000 lb. ---	32,601	30,311	9,218	7,696	13,397	2,290
Subsample 2 ---1,000 lb. ---	31,189	29,042	8,075	6,493	14,474	2,147
Subsample 3 ---1,000 lb. ---	30,687	28,540	7,959	6,311	14,270	2,147
Oleomargarine:						
Subsample 1a --1,000 lb. ---	26,124	24,256	5,610	4,712	13,934	1,868
Subsample 1b --1,000 lb. ---	25,360	23,854	5,227	4,818	13,809	1,506
Subsample 2 ---1,000 lb. ---	26,864	25,333	6,090	4,884	14,359	1,531
Subsample 3 ---1,000 lb. ---	26,115	24,541	5,110	4,958	14,473	1,574
Butter:						
Subsample 1a --1,000 lb. ---	19,963	18,961	5,934	4,327	8,700	1,002
Subsample 1b --1,000 lb. ---	20,360	19,238	5,903	5,012	8,323	1,122
Subsample 2 ---1,000 lb. ---	21,589	20,040	5,635	4,525	9,880	1,549
Subsample 3 ---1,000 lb. ---	19,919	18,539	5,248	4,460	8,831	1,380
Subsample 4 ---1,000 lb. ---	20,492	18,964	5,212	4,230	9,522	1,528
Lamb:						
Subsample 1a --1,000 lb. ---	10,172	9,744	2,437	2,993	4,312	428
Subsample 1b --1,000 lb. ---	9,334	8,607	2,539	2,234	3,834	727
Subsample 2 ---1,000 lb. ---	11,220	10,341	3,123	1/	5,347	1/
Subsample 3 ---1,000 lb. ---	10,800	9,882	2,903	1/	4,582	1/

Table 20.--Aggregate quantity of selected foods purchased during 1 week by primary families and individuals, by size of family, United States, farm, and nonfarm, May 1955--continued

Residence, food item, and subsample	Primary families and individuals	Families by size				Individuals
		Total	2 persons	3 persons	4 or more persons	
FARM						
Frozen orange juice:						
Subsample 1a --1,000 oz. ---	10,694	10,694	2,417	2/	6,230	2/
Subsample 1b --1,000 oz. ---	12,235	12,235	3,347	2/	6,979	2/
Subsample 2 ---1,000 oz. ---	1/	1/	1/	1/	1/	2/
Subsample 3 ---1,000 oz. ---	1/	1/	1/	1/	1/	2/
Subsample 4 ---1,000 oz. ---	1/	1/	1/	1/	1/	2/
Fresh oranges:						
Subsample 1a --Thousands ---	17,634	17,571	1,976	2/	12,455	2/
Subsample 1b --Thousands ---	20,783	20,711	2,674	2/	14,885	2/
Subsample 2 ---Thousands ---	28,754	27,917	1/	1/	17,944	2/
Subsample 3 ---Thousands ---	27,918	27,321	1/	1/	17,185	2/
All-purpose flour:						
Subsample 1a --1,000 lb. ---	31,220	30,930	5,925	2/	20,352	2/
Subsample 1b --1,000 lb. ---	29,093	28,761	5,539	2/	18,209	2/
Subsample 2 ---1,000 lb. ---	41,336	40,890	1/	1/	28,768	2/
Subsample 3 ---1,000 lb. ---	43,290	42,525	1/	1/	29,377	2/
Coffee:						
Subsample 1a --1,000 lb. ---	3,841	3,773	924	2/	1,950	2/
Subsample 1b --1,000 lb. ---	4,201	4,128	1,165	2/	2,072	2/
Subsample 2 ---1,000 lb. ---	4,764	4,615	1/	1/	2,747	2/
Subsample 3 ---1,000 lb. ---	4,312	4,123	1/	1/	2,306	2/
Oleomargarine:						
Subsample 1a --1,000 lb. ---	2,570	2,560	310	2/	1,927	2/
Subsample 1b --1,000 lb. ---	2,295	2,283	261	2/	1,723	2/
Subsample 2 ---1,000 lb. ---	2,750	2,713	1/	1/	1/	2/
Subsample 3 ---1,000 lb. ---	2,472	2,401	1/	1/	1/	2/
Butter:						
Subsample 1a --1,000 lb. ---	2,939	2,853	475	2/	1,957	2/
Subsample 1b --1,000 lb. ---	2,509	2,410	549	2/	1,577	2/
Subsample 2 ---1,000 lb. ---	2,412	2,350	1/	1/	1/	2/
Subsample 3 ---1,000 lb. ---	2,499	2,432	1/	1/	1/	2/
Subsample 4 ---1,000 lb. ---	3,117	3,046	1/	1/	1/	2/
Lamb:						
Subsample 1a --1,000 lb. ---	341	341	81	2/	216	2/
Subsample 1b --1,000 lb. ---	409	409	80	2/	289	2/
Subsample 2 ---1,000 lb. ---	1/	1/	1/	1/	1/	2/
Subsample 3 ---1,000 lb. ---	1/	1/	1/	1/	1/	2/

1/ Fewer than 100 purchasers in the sample reported the quantity purchased.
2/ Fewer than 100 cases in the sample reported on whether or not they purchased this item.

Table 21.--Aggregate expenditure for selected foods during 1 week by primary families and individuals, by size of family, United States, farm, and nonfarm, May 1955

Residence, food items and subsample	Primary families and individuals	Families by size				Individuals
		Total	2 persons	3 persons	4 or more persons	
UNITED STATES	1,000 dol.	1,000 dol.	1,000 dol.	1,000 dol.	1,000 dol.	1,000 dol.
Frozen orange juice:						
Subsample 1a	7,108	6,602	1,603	1,416	3,583	506
Subsample 1b	7,380	6,833	1,654	1,685	3,494	547
Subsample 2	8,562	8,097	1,750	1,598	4,749	1/
Subsample 3	8,248	7,805	1,800	1,747	4,258	1/
Subsample 4	8,123	7,677	1,596	1,469	4,612	1/
Fresh oranges:						
Subsample 1a	13,053	12,123	3,304	2,583	6,235	930
Subsample 1b	13,306	12,501	3,626	3,089	5,786	805
Subsample 2	15,189	14,093	3,353	3,017	7,722	1/
Subsample 3	14,450	13,589	3,269	3,090	7,230	1/
All-purpose flour:						
Subsample 1a	9,266	9,032	1,742	1,536	5,754	234
Subsample 1b	9,706	9,443	1,820	1,772	5,851	263
Subsample 2	13,277	12,836	2,886	2,102	7,848	1/
Subsample 3	12,906	12,449	2,869	1,958	7,622	1/
Coffee:						
Subsample 1a	33,409	31,180	9,100	7,210	14,871	2,229
Subsample 1b	33,705	31,441	9,645	7,823	13,973	2,264
Subsample 2	34,004	31,870	8,807	6,941	16,122	2,134
Subsample 3	32,844	30,640	8,594	6,741	15,304	2,205
Oleomargarine:						
Subsample 1a	8,630	8,018	1,982	1,420	4,615	612
Subsample 1b	8,354	7,795	1,776	1,621	4,398	559
Subsample 2	9,519	8,947	2,392	1,663	4,891	572
Subsample 3	9,290	8,747	1,949	1,760	5,039	543
Butter:						
Subsample 1a	17,799	16,804	5,164	3,848	7,792	995
Subsample 1b	17,638	16,583	5,027	4,331	7,225	1,055
Subsample 2	18,671	17,296	5,061	3,925	8,310	1,376
Subsample 3	17,959	16,609	4,626	3,960	8,023	1,349
Subsample 4	19,336	17,987	5,155	4,057	8,775	1,349
Lamb:						
Subsample 1a	6,387	6,028	1,506	1,903	2,619	359
Subsample 1b	6,261	5,716	1,771	1,456	2,489	545
Subsample 2	8,361	7,774	2,285	1/	3,986	1/
Subsample 3	8,517	7,717	2,215	1/	3,517	1/

Table 21.--Aggregate expenditure for selected foods during 1 week by primary families and individuals, by size of family, United States, farm, and nonfarm, May 1955--continued

Residence, food items, and subsample	Primary families and individuals	Families by size				Individuals
		Total	2 persons	3 persons	4 or more persons	
NONFARM	1,000 dol.	1,000 dol.	1,000 dol.	1,000 dol.	1,000 dol.	1,000 dol.
Frozen orange juice:						
Subsample 1a	6,805	6,299	1,532	1,354	3,413	506
Subsample 1b	7,020	6,473	1,550	1,627	3,296	547
Subsample 2	8,204	7,738	1,655	1,553	4,530	1/
Subsample 3	7,929	7,486	1,731	1,687	4,068	1/
Subsample 4	7,801	7,357	1,530	1,409	4,418	1/
Fresh oranges:						
Subsample 1a	12,200	11,273	3,158	2,447	5,667	927
Subsample 1b	12,589	11,787	3,457	2,954	5,376	802
Subsample 2	13,923	12,864	3,097	2,809	6,958	1/
Subsample 3	13,193	12,408	2,985	2,900	6,524	1/
All-purpose flour:						
Subsample 1a	6,369	6,161	1,157	1,133	3,871	208
Subsample 1b	6,976	6,742	1,262	1,351	4,129	234
Subsample 2	9,454	9,052	2,226	1,594	5,232	1/
Subsample 3	8,765	8,420	2,111	1,336	4,973	1/
Coffee:						
Subsample 1a	29,891	27,723	8,266	6,398	13,059	2,168
Subsample 1b	29,865	27,671	8,581	7,016	12,074	2,194
Subsample 2	29,543	27,542	7,710	6,285	13,546	2,001
Subsample 3	28,729	26,694	7,558	6,018	13,118	2,035
Oleomargarine:						
Subsample 1a	7,908	7,299	1,876	1,300	4,123	609
Subsample 1b	7,694	7,139	1,685	1,510	3,944	555
Subsample 2	8,688	8,137	2,174	1,518	4,445	551
Subsample 3	8,489	7,967	1,723	1,644	4,600	522
Butter:						
Subsample 1a	15,916	14,977	4,840	3,586	6,551	939
Subsample 1b	16,024	15,032	4,664	4,154	6,214	992
Subsample 2	17,002	15,669	4,647	3,662	7,360	1,333
Subsample 3	16,273	14,971	4,304	3,688	6,979	1,303
Subsample 4	17,265	15,968	4,696	3,640	7,632	1,297
Lamb:						
Subsample 1a	6,260	5,900	1,463	1,888	2,549	359
Subsample 1b	6,078	5,533	1,728	1,442	2,363	545
Subsample 2	8,091	7,504	2,214	1/	3,793	1/
Subsample 3	8,411	7,632	2,285	1/	3,442	1/

Table 21.--Aggregate expenditure for selected foods during 1 week by primary families and individuals, by size of family, United States, farm, and nonfarm, May 1955--continued

Residence, food items, and subsample	Primary families and individuals	Families by size				Individuals
		Total	2 persons	3 persons	4 or more persons	
FARM	1,000 dol.	1,000 dol.	1,000 dol.	1,000 dol.	1,000 dol.	1,000 dol.
Frozen orange juice:						
Subsample 1a	303	303	71	2/	170	2/
Subsample 1b	360	360	104	2/	198	2/
Subsample 2	1/	1/	1/	1/	1/	2/
Subsample 3	1/	1/	1/	1/	1/	2/
Subsample 4	1/	1/	1/	1/	1/	2/
Fresh oranges:						
Subsample 1a	852	850	145	2/	568	2/
Subsample 1b	717	714	169	2/	410	2/
Subsample 2	1,266	1,229	1/	1/	1/	2/
Subsample 3	1,257	1,181	1/	1/	1/	2/
All-purpose flour:						
Subsample 1a	2,896	2,871	585	2/	1,883	2/
Subsample 1b	2,730	2,701	558	2/	1,722	2/
Subsample 2	3,823	3,784	1/	1/	2,616	2/
Subsample 3	4,141	4,029	1/	1/	2,649	2/
Coffee:						
Subsample 1a	3,518	3,457	834	2/	1,812	2/
Subsample 1b	3,840	3,770	1,064	2/	1,899	2/
Subsample 2	4,461	4,328	1/	1/	2,576	2/
Subsample 3	4,115	3,946	1/	1/	2,186	2/
Oleomargarine:						
Subsample 1a	722	719	107	2/	492	2/
Subsample 1b	660	656	91	2/	454	2/
Subsample 2	831	809	1/	1/	1/	2/
Subsample 3	802	781	1/	1/	1/	2/
Butter:						
Subsample 1a	1,883	1,827	324	2/	1,241	2/
Subsample 1b	1,614	1,551	363	2/	1,011	2/
Subsample 2	1,670	1,627	1/	1/	1/	2/
Subsample 3	1,685	1,639	1/	1/	1/	2/
Subsample 4	2,071	2,019	1/	1/	1/	2/
Lamb:						
Subsample 1a	128	128	43	2/	69	2/
Subsample 1b	183	183	43	2/	126	2/
Subsample 2	1/	1/	1/	1/	1/	2/
Subsample 3	1/	1/	1/	1/	1/	2/

1/ Fewer than 100 purchasers in the sample reported the amount paid.
2/ Fewer than 100 cases in the sample reported on whether or not they purchased this item.

Table 22.--Average quantity, per purchasing family, of selected foods purchased during 1 week by primary families and individuals, by size of family, United States, farm, and nonfarm, May 1955

Residence, food item, and subsample	Primary families and individuals	Families by size				Individuals
		Total	2 persons	3 persons	4 or more persons	
UNITED STATES						
Frozen orange juice:						
Subsample 2 --ounces --	22.5	22.6	19.5	18.8	25.5	1/
Subsample 3 --ounces --	21.8	22.5	19.9	19.3	25.1	1/
Subsample 4 --ounces --	21.6	22.0	18.0	20.1	24.3	1/
Fresh oranges:						
Subsample 2 --number --	15.0	15.3	12.7	14.1	17.0	11.0
Subsample 3 --number --	14.7	15.0	13.3	13.6	16.6	9.6
All-purpose flour:						
Subsample 2 --pounds --	10.4	10.6	8.7	8.4	12.3	1/
Subsample 3 --pounds --	10.4	10.6	8.5	8.2	12.5	1/
Coffee:						
Subsample 2 --pounds --	1.4	1.4	1.3	1.3	1.5	1.2
Subsample 3 --pounds --	1.4	1.4	1.4	1.4	1.5	1.2
Oleomargarine:						
Subsample 2 --pounds --	1.6	1.6	1.4	1.4	1.8	1.2
Subsample 3 --pounds --	1.5	1.6	1.3	1.4	1.7	1.1
Butter:						
Subsample 2 --pounds --	1.2	1.2	1.0	1.1	1.3	0.8
Subsample 3 --pounds --	1.1	1.2	1.0	1.1	1.3	.8
Subsample 4 --pounds --	1.2	1.2	1.0	1.2	1.4	.9
Lamb:						
Subsample 2 --pounds --	2.9	2.9	2.7	1/	3.4	1/
Subsample 3 --pounds --	2.8	2.9	2.4	2.6	3.7	2.2

Table 22.--Average quantity, per purchasing family, of selected foods purchased during 1 week by primary families and individuals, by size of family, United States, farm, and nonfarm, May 1955--continued

Residence, food item, and subsample	Primary families and individuals	Families by size				Individuals
		Total	2 persons	3 persons	4 or more persons	
NONFARM						
Frozen orange juice:						
Subsample 2 --ounces --	22.6	22.7	19.5	18.9	25.7	1/
Subsample 3 --ounces --	21.8	22.5	20.0	19.0	25.3	1/
Subsample 4 --ounces --	21.7	22.0	17.9	20.5	24.2	1/
Fresh oranges:						
Subsample 2 --number --	14.9	15.2	12.7	13.9	17.0	10.8
Subsample 3 --number --	14.5	14.9	13.2	13.5	16.6	9.9
All-purpose flour:						
Subsample 2 --pounds --	8.4	8.6	7.4	7.0	9.7	1/
Subsample 3 --pounds --	8.2	8.3	7.5	6.0	9.6	1/
Coffee:						
Subsample 2 --pounds --	1.4	1.4	1.3	1.3	1.4	1.1
Subsample 3 --pounds --	1.4	1.4	1.4	1.4	1.5	1.2
Oleomargarine:						
Subsample 2 --pounds --	1.6	1.6	1.4	1.4	1.7	1.2
Subsample 3 --pounds --	1.5	1.6	1.3	1.4	1.7	1.1
Butter:						
Subsample 2 --pounds --	1.1	1.1	1.0	1.1	1.3	0.8
Subsample 3 --pounds --	1.1	1.1	1.0	1.1	1.3	.8
Subsample 4 --pounds --	1.1	1.2	1.0	1.1	1.3	.9
Lamb:						
Subsample 2 --pounds --	2.8	2.9	2.6	1/	3.3	1/
Subsample 3 --pounds --	2.8	2.9	2.4	1/	3.7	1/

Table 22.--Average quantity, per purchasing family, of selected foods purchased during 1 week by primary families and individuals, by size of family, United States, farm, and nonfarm, May 1955--continued

Residence, food item, and subsample	Primary families and individuals	Families by size				Individuals
		Total	2 persons	3 persons	4 or more persons	
FARM						
Frozen orange juice:						
Subsample 2 --ounces --	1/	1/	1/	1/	1/	2/
Subsample 3 --ounces --	1/	1/	1/	1/	1/	2/
Subsample 4 --ounces --	1/	1/	1/	1/	1/	2/
Fresh oranges:						
Subsample 2 --number --	16.0	16.0	1/	1/	17.4	2/
Subsample 3 --number --	16.2	16.2	1/	1/	17.1	2/
All-purpose flour:						
Subsample 2 --pounds --	20.1	20.1	1/	1/	22.4	2/
Subsample 3 --pounds --	20.4	20.8	1/	1/	23.9	2/
Coffee:						
Subsample 2 --pounds --	1.5	1.5	1/	1/	1.6	2/
Subsample 3 --pounds --	1.4	1.4	1/	1/	1.4	2/
Oleomargarine:						
Subsample 2 --pounds --	1.7	1.7	1/	1/	1/	2/
Subsample 3 --pounds --	1.6	1.7	1/	1/	1/	2/
Butter:						
Subsample 2 --pounds --	1.7	1.7	1/	1/	1/	2/
Subsample 3 --pounds --	1.8	1.9	1/	1/	1/	2/
Subsample 4 --pounds --	1.9	2.0	1/	1/	1/	2/
Lamb:						
Subsample 2 --pounds --	1/	1/	1/	1/	1/	2/
Subsample 3 --pounds --	1/	1/	1/	1/	1/	2/

1/ Fewer than 100 purchasers in the sample reported the quantity purchased.
2/ Fewer than 100 cases in the sample reported on whether or not they purchased this item.

Table 23.--Average expenditure, per purchasing family, for selected foods purchased during 1 week by primary families and individuals, by size of family, United States, farm, and nonfarm, May 1955

Residence, food item, and subsample	Primary families and individuals	Families by size				Individuals
		Total	2 persons	3 persons	4 or more persons	
UNITED STATES	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.
Frozen orange juice:						
Subsample 2	0.78	0.79	0.71	0.69	0.86	1/
Subsample 3	.81	.83	.83	.76	.86	1/
Subsample 4	.81	.82	.77	.72	.88	1/
Fresh oranges:						
Subsample 2	.78	.78	.72	.76	.81	1/
Subsample 3	.75	.76	.68	.75	.81	1/
All-purpose flour:						
Subsample 2	1.12	1.14	1.02	.96	1.25	1/
Subsample 3	1.11	1.13	1.02	.90	1.27	1/
Coffee:						
Subsample 2	1.30	1.32	1.27	1.27	1.36	1.07
Subsample 3	1.31	1.32	1.29	1.28	1.37	1.13
Oleomargarine:						
Subsample 2	.50	.51	.50	.45	.54	0.42
Subsample 3	.49	.51	.45	.46	.55	.36
Butter:						
Subsample 2	.90	.91	.85	.86	.99	.72
Subsample 3	.91	.92	.79	.90	1.03	.77
Subsample 4	.98	1.00	.90	1.01	1.07	.72
Lamb:						
Subsample 2	2.06	2.11	1.88	1/	2.40	1/
Subsample 3	2.21	2.25	1.85	2.09	2.76	1/

Table 23.--Average expenditure, per purchasing family, for selected foods purchased during 1 week by primary families and individuals, by size of family, United States, farm, and nonfarm, May 1955--continued

Residence, food item, and subsample	Primary families and individuals	Families by size				Individuals
		Total	2 persons	3 persons	4 or more persons	
NONFARM	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.
Frozen orange juice:						
Subsample 2	0.78	0.79	0.72	0.70	0.86	1/
Subsample 3	.81	.83	.84	.76	.86	1/
Subsample 4	.82	.83	.77	.72	.89	1/
Fresh oranges:						
Subsample 2	.78	.78	.73	.77	.82	1/
Subsample 3	.75	.77	.68	.75	.83	1/
All-purpose flour:						
Subsample 2	.96	.98	.91	.87	1.04	1/
Subsample 3	.93	.94	.89	.74	1.04	1/
Coffee:						
Subsample 2	1.29	1.31	1.28	1.28	1.34	1.07
Subsample 3	1.31	1.33	1.29	1.29	1.37	1.11
Oleomargarine:						
Subsample 2	.50	.51	.50	.44	.54	0.42
Subsample 3	.49	.50	.44	.46	.55	.36
Butter:						
Subsample 2	.88	.89	.84	.86	.95	.72
Subsample 3	.88	.89	.78	.89	.99	.77
Subsample 4	.95	.97	.90	.98	1.03	.72
Lamb:						
Subsample 2	2.03	2.08	1.86	1/	2.35	1/
Subsample 3	2.20	2.25	1.86	1/	2.75	1/

Table 23.--Average expenditure, per purchasing family, for selected foods purchased during 1 week by primary families and individuals, by size of family, United States, farm, and nonfarm, May 1955--continued

Residence, food item, and subsample	Primary families and individuals	Families by size				Individuals
		Total	2 persons	3 persons	4 or more persons	
FARM	Dol.	Dol.	Dol.	Dol.	Dol.	Dol.
Frozen orange juice:						
Subsample 2	1/	1/	1/	1/	1/	2/
Subsample 3	1/	1/	1/	1/	1/	2/
Subsample 4	1/	1/	1/	1/	1/	2/
Fresh oranges:						
Subsample 2	0.71	0.71	1/	1/	1/	2/
Subsample 3	.73	.70	1/	1/	1/	2/
All-purpose flour:						
Subsample 2	1.86	1.86	1/	1/	2.04	2/
Subsample 3	1.95	1.97	1/	1/	2.15	2/
Coffee:						
Subsample 2	1.38	1.39	1/	1/	1.51	2/
Subsample 3	1.31	1.31	1/	1/	1.36	2/
Oleomargarine:						
Subsample 2	.51	.50	1/	1/	1/	2/
Subsample 3	.53	.54	1/	1/	1/	2/
Butter:						
Subsample 2	1.17	1.20	1/	1/	1/	2/
Subsample 3	1.24	1.26	1/	1/	1/	2/
Subsample 4	1.28	1.31	1/	1/	1/	2/
Lamb:						
Subsample 2	1/	1/	1/	1/	1/	2/
Subsample 3	1/	1/	1/	1/	1/	2/

1/ Fewer than 100 purchasers in the sample reported the amount paid.
2/ Fewer than 100 cases in the sample reported on whether or not they purchased this item.

CONFIDENTIAL - Your report on the census schedule is accorded **confidential** treatment, in accordance with the provisions of the law. This inquiry is authorized by law.

BUDGET BUREAU NO. 41-5504.1
APPROVAL EXPIRES JULY 15, 1955

1

Form FE-1
(4-7-55)
Comm-DC 47523

FOOD EXPENDITURES SURVEY

U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

DID YOU OR ANY MEMBER OF YOUR FAMILY BUY ANY .... ON .... ?

[NOTE: If item was not purchased on a given day, check "None." Include home deliveries as purchases.]

Interview date	Purchase date	(1) Frozen orange juice		(2) Fresh oranges		(3) All-purpose flour		(4) Fresh coffee (Not powdered or frozen)		(5) Oleo-margarine		(6) Butter		(7) Lamb (Roast, chops, leg, etc.)	
		How much did you buy? (Oz.)	How much did you pay? (Total cost)	How much did you buy? (Lbs. or No.)	How much did you pay? (Total cost)	How much did you buy? (Lbs.)	How much did you pay? (Total cost)	How much did you buy? (Lbs.)	How much did you pay? (Total cost)	How much did you buy? (Lbs.)	How much did you pay? (Total cost)	How much did you buy? (Lbs.)	How much did you pay? (Total cost)	How much did you buy? (Lbs.)	How much did you pay? (Total cost)
☐ Wednesday (May 11)	Tues. (10th)	☐ None		☐ None ___ Lbs. ___ No.		☐ None		☐ None		☐ None		☐ None		☐ None	
	Mon. (9th)	☐ None		☐ None ___ Lbs. ___ No.		☐ None		☐ None		☐ None		☐ None		☐ None	
	Sun. (8th)	☐ None		☐ None ___ Lbs. ___ No.		☐ None		☐ None		☐ None		☐ None		☐ None	
	Sat. (7th)	☐ None		☐ None ___ Lbs. ___ No.		☐ None		☐ None		☐ None		☐ None		☐ None	
☐ Friday (May 13)	Thur. (12th)	☐ None		☐ None ___ Lbs. ___ No.		☐ None		☐ None		☐ None		☐ None		☐ None	
	Wed. (11th)	☐ None		☐ None ___ Lbs. ___ No.		☐ None		☐ None		☐ None		☐ None		☐ None	
	Tues. (10th)	☐ None		☐ None ___ Lbs. ___ No.		☐ None		☐ None		☐ None		☐ None		☐ None	
☐ Monday (May 16)	Sun. (15th)	☐ None		☐ None ___ Lbs. ___ No.		☐ None		☐ None		☐ None		☐ None		☐ None	
	Sat. (14th)	☐ None		☐ None ___ Lbs. ___ No.		☐ None		☐ None		☐ None		☐ None		☐ None	
	Fri. (13th)	☐ None		☐ None ___ Lbs. ___ No.		☐ None		☐ None		☐ None		☐ None		☐ None	
	Thur. (12th)	☐ None		☐ None ___ Lbs. ___ No.		☐ None		☐ None		☐ None		☐ None		☐ None	

Office transcription

Size of family

Age of wife of head

Footnotes:

Control No.

Date completed

CONFIDENTIAL - Your report on the census schedule is accorded **confidential** treatment, in accordance with the provisions of the law. This inquiry is authorized by law.

BUDGET BUREAU NO. 41-5504.1
APPROVAL EXPIRES JULY 15, 1955

2

Form FE-2
(4-7-55)
Comm-DC 47528

FOOD EXPENDITURES SURVEY

U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

LAST WEEK, THAT IS, FROM SUNDAY, MAY 8, THROUGH SATURDAY, MAY 14, DID YOU OR ANY MEMBER OF YOUR FAMILY BUY ANY.....?
WE ARE NOT ASKING ABOUT WHAT YOU USUALLY BUY - ONLY ABOUT WHAT YOU BOUGHT LAST WEEK.

[NOTE: If item was not purchased, check "None." Include home deliveries as purchases.]

Item No.	Item	How much did you buy?	How much did you pay? *(Total cost)*
1	Frozen orange juice	☐ None _____ Oz.	
2	Fresh oranges	☐ None _____ Lbs. _____ No.	
3	All-purpose flour	☐ None _____ Lbs.	
4	Fresh coffee (not powdered or frozen)	☐ None _____ Lbs.	
5	Oleomargarine	☐ None _____ Lbs.	
6	Butter	☐ None _____ Lbs.	
7	Lamb (roast, chops, leg, etc.)	☐ None _____ Lbs.	

MAY 1955

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

Office transcription

Size of family	Age of wife of head

Footnotes:

Control No.

Date completed

CONFIDENTIAL - Your report on the census schedule is accorded **confidential** treatment in accordance with the provisions of the law. This inquiry is authorized by law.

BUDGET BUREAU NO. 41-5504.1
APPROVAL EXPIRES JULY 15, 1955

3

Form FE-3
(4-7-55)
Comm-DC 47528

FOOD EXPENDITURES SURVEY

U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

DURING THE PAST 7 DAYS, THAT IS, FROM LAST.....THROUGH YESTERDAY, DID YOU OR ANY MEMBER OF YOUR FAMILY BUY ANY.....?
WE ARE NOT ASKING ABOUT WHAT YOU USUALLY BUY - ONLY ABOUT WHAT YOU BOUGHT DURING THE PAST 7 DAYS.

[NOTE: If item was not purchased, check "None." Include home deliveries as purchases.]

Item No.	Item	How much did you buy?	How much did you pay? *(Total cost)*
1	Frozen orange juice	☐ None _____ Oz.	
2	Fresh oranges	☐ None _____ Lbs. _____ No.	
3	All-purpose flour	☐ None _____ Lbs.	
4	Fresh coffee (not powdered or frozen)	☐ None _____ Lbs.	
5	Oleomargarine	☐ None _____ Lbs.	
6	Butter	☐ None _____ Lbs.	
7	Lamb (roast, chops, leg, etc.)	☐ None _____ Lbs.	

MAY 1955

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

Office transcription

Size of family	Age of wife of head

Footnotes:

Control No.

Date completed

CONFIDENTIAL - Your report on the census schedule is accorded confidential treatment in accordance with the provisions of the law. This inquiry is authorized by law.

BUDGET BUREAU NO. 41-5504.1
APPROVAL EXPIRES JULY 15, 1955

4

Form FE-4
(4-7-55)
Comm-DC 47528

U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

FOOD EXPENDITURES SURVEY

1. Did you or any member of your family go to the store or have any food delivered to your home last .....?		2. (If "Yes" in 1). On that day, did you or any member of your family buy any frozen orange juice - or have any delivered to your home?		3. (If "Yes" in 1). On that day, did you or any member of your family buy any butter -- not oleomargarine, just butter -- or have any delivered to your home?	
		How much did you buy?	How much did you pay? *(Total cost)*	How much did you buy?	How much did you pay? *(Total cost)*
Saturday (May 14)	☐ No ☐ Yes (Ask 2 and 3)	☐ None _____ oz.		☐ None _____ oz.	
Friday (May 13)	☐ No ☐ Yes (Ask 2 and 3)	☐ None _____ oz.		☐ None _____ oz.	
Thursday (May 12)	☐ No ☐ Yes (Ask 2 and 3)	☐ None _____ oz.		☐ None _____ oz.	
Wednesday (May 11)	☐ No ☐ Yes (Ask 2 and 3)	☐ None _____ oz.		☐ None _____ oz.	
Tuesday (May 10)	☐ No ☐ Yes (Ask 2 and 3)	☐ None _____ oz.		☐ None _____ oz.	
Monday (May 9)	☐ No ☐ Yes (Ask 2 and 3)	☐ None _____ oz.		☐ None _____ oz.	
Sunday (May 8)	☐ No ☐ Yes (Ask 2 and 3)	☐ None _____ oz.		☐ None _____ oz.	

Office transcription		Footnotes	Control No.
Size of family	Age of wife of head		Date completed

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