



MINISTRY OF FOOD

**The Urban
Working-Class Household
Diet
1940 to 1949**

FIRST REPORT OF
THE NATIONAL FOOD SURVEY
COMMITTEE

LONDON

HIS MAJESTY'S STATIONERY OFFICE

1951

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THE NATIONAL FOOD SURVEY COMMITTEE

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PREFACE

THE NATIONAL FOOD SURVEY was initiated by the Ministry of Food in 1940. Its purpose was to provide an independent check on the food consumption and expenditure of the population during the war and thus to assess the effectiveness of the Government's war-time food policy. Owing to the continuing food supply difficulties in the post-war period, and because the information provided by the Survey was found to be of special value in relation to derationing and other aspects of post-war food policy, the Survey was continued in its war-time form until the end of 1949.

It was assumed that the effectiveness of the war-time food policy would be most clearly reflected in the food consumption and expenditure of urban working-class households. The Survey was therefore mainly directed towards such households, though special studies were made from time to time of other groups of the population. As a result there is available an almost unbroken record since 1940 of the food purchases and, since 1942, of the food consumption of a widely distributed sample of urban working-class households.

During the war it was not possible to analyse in detail the great mass of information which had been collected, nor to set the results of such an analysis against the constantly changing background. However, the potential importance of the information, and the desirability of making it more generally available, led to the appointment in 1948 of a National Food Survey Committee which was invited to consider the available material and make recommendations regarding its publication.

After reviewing the data, the Committee decided to recommend the issue of a series of reports, each of which would be concerned with one or more special aspects of the material. The present report, the first of the series, presents material for the years 1940-1949 in the form of annual averages, and so furnishes a broad picture of the yearly changes in food consumption of urban working-class households. Further reports at present in preparation will cover changes in food expenditure, and such special aspects as food consumption by different social classes and in different geographical areas. While the resulting series of reports will be largely technical in character, it is hoped to publish at a later date a more popular account of the main conclusions.

The treatment of the material in the present report is set out in the List of Contents. In the opening section, a short account is given of the pre-war diet as recorded in a number of contemporary budgetary surveys. In subsequent sections, the changes in the war-time diet are set against the background of changes in the total food supplies moving into civilian consumption (based largely on the estimates already published in *Food Consumption Levels in the United Kingdom*, Cmd. 7842) and of the development of food policy during the war years. Thereafter, similar comparisons are made in relation to the post-war food supplies. Both for the war and post-war years, full discussions are included of the trends in consumption of individual foods, and of the contribution of each food to the energy value and nutrient composition of the diet. Finally, in Appendix A the methods and reliability of the Survey are dealt with while in Appendix B the annual average figures for food consumption and food purchases are set out in a single series from 1940

to 1949. Considerations of space prohibit the publication of quarterly averages, but if reference to these is desired they can be consulted in the Ministry's Library.

Discussion of the adequacy of the war and post-war diets has inevitably involved comparisons with the pre-war levels of food consumption. As noted in the text of the report, the data available for the pre-war years are sparse and the coverage is by no means identical with that of the present Survey. Moreover, although the pre-war levels of food consumption of most sections of the population were satisfactory, there were some whose diet was not fully adequate. For this reason it would clearly be a mistake to lay too much stress on such comparisons.

The preparation of the present report has been undertaken jointly by Mr. W. L. Kendall, who has been responsible for the general design and for the sections on food consumption data, and Miss D. F. Hollingsworth, who has prepared the sections on energy value and nutrient composition. The Committee desire to express their indebtedness to these two officers of the Ministry for the most competent manner in which they have implemented the Committee's recommendations. Throughout the preparation of the report, and particularly in those sections covering the war years, the Committee has received valuable suggestions and assistance from Professor E. F. Nash, who was largely responsible, when an officer of the Ministry, for developing the Survey in its early years. In the course of the drafting of the report, the Committee has also been fortunate in securing much valued guidance from Dr. Isabella Leitch. As will be clear from the text of the report itself, the National Food Survey owes much to the London Press Exchange. Their skill in building up a staff of investigators at a time when enemy attacks and social dislocation involved grave hazards and difficulties in the prosecution of the field work represented a remarkable achievement in survey organisation. The excellent work of the Ministry of Food's Surveys and Hollerith Sections has also contributed largely to the success of the Survey.

Finally, the Ministry and the Committee are alike indebted to the many housewives who, at whatever cost of time and trouble, co-operated in providing the wealth of information on which the Survey is based. This information has already been extensively used in the daily work of the government. It is hoped that the publication of the present series of reports will now demonstrate in tangible form the valuable results which can accrue from such willing co-operation on the part of the public.

NORMAN C. WRIGHT

Chairman

National Food Survey Committee

22nd May, 1951

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APPENDIX A.

Methods and Reliability of the National Food Survey

APPENDIX B.

Table 1. Domestic Food Consumption by Urban Working-Class 1942 to 1949

Table 2. Domestic Food Purchases by Urban Working-Class 1940 to 1949

I. INTRODUCTION

1. The National Food Survey, or Wartime Food Survey as it was called during the greater part of the war, is an inquiry into household food expenditure, purchases and consumption made by the Ministry of Food using records supplied voluntarily by selected samples of housewives. When it was started in July 1940 records were collected at roughly quarterly intervals, but in February 1942 the technique was revised and the survey made continuous. Since that date and up to 1950 the methods used have remained substantially unchanged.

2. The Survey was at first confined to working-class households selected at random within chosen districts of a number of towns in different parts of Great Britain but, in later years, other households were included and studies also made from time to time of households, such as those of heavy workers, or those dependent on pensions, or households in "slum" areas, whose food consumption required particular attention. The present report is concerned with the average results obtained from the general samples of urban working-class households. It is a narrative of the general changes in working-class food consumption, from 1940 to 1949, set against the background of the food situation and food policy during the war and post-war years.

3. In considering these results, it is necessary to bear in mind that the primary purpose of the Survey was to assist the Government when considering the measures necessary to mitigate the effects of wartime food shortages; it was not devised at the time to provide a continuous record of food consumption. The limitations of the methods used in the Survey must also be noted. These are fully explained in Appendix A, but their principal features may be summarised here. The information was obtained from housewives who, with the co-operation of the investigator, completed a log-book covering seven full days.

The records obtained by these means included:—

- (a) The quantities and value of all foods purchased during the week of the Survey, and the quantities and estimated value of food obtained from gardens and allotments, and as gifts or perquisites;
- (b) a list of the meals eaten away from home (other than packed meals prepared at home) by members of the household and of the meals served to visitors, of the dishes served at each meal taken in the household and of the persons taking it;
- (c) particulars of the sex, age and occupations of the members of the household.

After February 1942, the investigator, in addition, recorded the quantities of household stocks of food at the beginning and end of the Survey week. Questions about income were not included. The attempt to obtain information on income from a proportion of the 1943 sample met with a disappointing response and involved difficulties which led to its abandonment after the close of that year.

4. In general, the Survey is believed to have reached a high degree of accuracy as a record of the quantities it sought to measure and in relation to the households included in the samples. It was not a record of *total* food consumption, for a survey of this kind cannot attempt to measure the food consumed in meals

and snacks purchased away from home,¹ and purchases of sweets and chocolates, ice-cream, and alcoholic and most soft drinks, whose amount may not be accurately known to the housewife, were not recorded. After February 1942, it was possible when estimating consumption to allow for larger stocks changes during the weeks of the Survey, but no measurement was attempted of the wastage of food in the household, although the conversion factors used to estimate consumption in terms of nutrients make allowance for the inedible portions normally contained in the foods as purchased.

5. Difficulties of a different character arise from the nature of the samples. It is almost impossible, in a survey relying on personal visits by investigators, to avoid a bias in favour of households with young children or elderly persons, with which contact is relatively easy to establish, and a corresponding under-representation of those consisting solely of adults of working age, especially those whose members are all employed outside the home. Further, even if a truly representative sample could be obtained in the areas chosen for the survey, considerations of cost have made it necessary to limit the number of these areas. The estimates of food consumption obtained from the sample may as a result include errors due to the bias in household composition and to regional differences in consumption habits or family composition.

6. For the purposes of a continuous record the comparability of the Survey samples for different periods is important. During the ten year period covered by this report the development of survey technique, the extension of its scope, and wartime difficulties such as the incidence of air raids and the shortage of investigators, made modifications in the methods of the survey inevitable. These changes may have impaired the validity of the results as a record of year to year changes in average consumption, and these are noted in the report. One of the principal limitations of the Survey is the absence of continuous information about the incomes of the families surveyed, so that fluctuations which may have occurred in the social class from which the families were drawn at different times are difficult to detect.²

7. The regional distribution and average composition of the families taking part in the Survey year by year are shown in Tables 1 and 2. Except in a few instances, to which attention is drawn in the Report, the changes in the geographical composition of the sample are unlikely to have affected the comparability of the figures to any great extent. The fall in the average number of adults per household from 1941 to 1945 and the increase in the later years are the results of calling-up and of subsequent demobilisation. Over the whole period of the war, but more particularly in the earlier years, the number of children per household in the Survey samples was probably below the average for the urban working-class as a whole, since evacuation moved children from the larger towns to those smaller towns and country districts where there was less chance of their being included. The average number of children under 14 in industrial working-class families surveyed by the Ministry of Labour in 1937 and 1938 was 0.99, but in the National Food Survey sample for 1941, the average was only 0.80. Since the war ended the evacuation movement has been reversed and there has been a continuous rise in the number of children in the surveyed households. These considerations probably explain most of the fluctuations in the number of children in the survey samples,³ except that since 1946 the rising birth-rate has to be taken into account.

¹ It is estimated that meals away from home may have accounted for about 10 per cent of the energy value of the diet. (See Appendix A, paragraphs 27 to 29).

² An instance of possible change in class structure of the sample is noted in paragraph 53 below.

³ The decline between 1943 and 1944 is considered in paragraph 53 below.

APPENDIX A

Methods and Reliability of the National Food Survey

Origin of the Survey

1. The Ministry of Food began the collection of records of food purchases and expenditure from samples of households in different parts of the country in July 1940. During that month about 1,500 records were obtained from working-class households in seven towns¹ and one rural area. In October, a further survey was made with the intention of collecting budgets from the same households as were surveyed in July, but this was possible for two-thirds only of the original informants.

2. As food supplies became more difficult and rationing increased in extent it was felt that the survey method should be developed to provide a continuous check on the nutrition of critical sections of the population. It was decided that, beginning in 1941, the Ministry of Food should carry out a regular quarterly survey, designed as far as possible to represent working-class households in the main urban areas. Work in rural areas was abandoned because of the difficulties of obtaining trained investigators to work in these areas during wartime.

3. During the first quarter of 1941, the Survey was conducted in seven towns, to which a further four¹ were added for the second and subsequent quarters. The number of households surveyed was approximately 1,000 in the first quarter, and between 1,400 and 1,500 in the remaining quarters. Within each town a random selection of addresses was taken from the electoral register of wards known to be predominantly working-class in character. It was still hoped to obtain budgets from the same household in successive surveys but about 35 per cent only of the original households completed records throughout the year and the idea of a constant panel to be visited at regular intervals was finally abandoned in 1943.²

4. The choice of towns included initially in the Survey was limited by the scarcity of trained investigators and, on a number of occasions, severe air-raids forced the postponement or the abandonment of the work. The effect on the Survey results of these and other disturbing factors, such as evacuation and mobilisation, are noted in the text of the Report³ but by the beginning of 1942 many of the initial fieldwork difficulties had been overcome and many improvements were made in the methods of investigation: the measurement of household food stocks was introduced to make possible an assessment of the quantities of foods consumed as well as those purchased; the size of the sample was enlarged; provision was made for the study of special groups of the population, such as households dependent on pensions and service allowances and heavy workers' households, and the fieldwork was made continuous.

5. During 1942, the results of the Survey were tabulated in five periods of ten weeks corresponding with the cycles of fieldwork. With an improvement in tabulating facilities, introduced at the beginning of 1943, regular monthly tabulations were possible and were continued to the end of 1949 with the exception of five months during the winter of 1947 to 1948, when certain special investigations were carried out in the place of the survey of working-class households.

Selection of the Sample

6. The following section describes the methods of selecting the sample during the time, from the beginning of 1942 up to the end of 1949, when the continuous survey was in operation. During 1950, when the Survey was further extended to cover all classes of the population, in both urban and rural areas, the third month in each quarter was omitted.

¹ See paragraph 32 above.

² See paragraph 52 above.

³ See paragraph 7 above.

7. The unit of the sample was the household since this is the catering unit for food. Food consumed at hotels, restaurants and similar catering establishments, and in institutions, was thus excluded but food prepared in the home to be eaten outside was treated as domestic food consumption.¹ Up to and including 1942, the members of the household were defined as those present during at least four days of the survey week. From 1943 onwards the definition was more precisely related to food consumption, a member of the household being defined as one who had consumed at least 16 meals provided by the housewife during the survey week, or proportionately less if the meal pattern was less than four a day. The effect of this definition is discussed in paragraphs 24 and 25 below.

8. The list of households was obtained first by selecting a number of towns, including all the great conurbations, attention being paid both to the size of the town and the character of the region in which it was located. The main limiting factor still continued to be the number of fieldworkers available and their mobility, so that, for example, adequate weight could not be given to the smaller towns.² Within the chosen towns a further selection was made of the wards or areas to be sampled. The choice of wards was, until the beginning of 1944, confined to those consisting predominantly of working-class residential areas, but from 1944 until 1948 areas of mixed middle and working-class character were also included and the households taking part in the Survey were assigned to the middle or working-class sample according to the occupation of the head of the household and the type of amenities enjoyed by the household. During 1949, a working-class sample only was drawn.

9. Within the selected wards, a random selection of addresses was made by choosing every 35th address from the Register of Electors (in England and Wales) or from the Valuation Rolls or survey books kept by each city or burgh (in Scotland). Until the new Electoral Registers became available in 1945, the 1939 lists had to be used. These were often out of date in the war years but they had the advantage that the head of the household and his wife were indicated by special symbols. In the new lists the identity of the head of household was not indicated.

10. The selected addresses were afterwards plotted on large scale maps and divided into groups of ten, each group being chosen to fall within as compact an area as possible. These sets of ten names and addresses were sent out to the fieldworkers and, at the same time, an introductory letter from the Ministry posted to the housewives explaining the method and purpose of the Survey and requesting their co-operation. At each address visited by the fieldworkers, only one household (catering unit) was asked to co-operate. For this reason, households which shared a single address (for example a house converted into 2 or 3 flats but not shown as such in the Electoral Register) were slightly under-represented. The process of selection was continued until the whole Register for the particular ward was exhausted, and the procedure repeated with other wards of similar type in the same town. When all the suitable wards had been sampled, a new town of similar character was selected in which to draw further samples.

11. During 1949 the National Food Survey was conducted in the following towns :

| <i>Region</i> | <i>Town</i> | <i>Region</i> | <i>Town</i> |
|--------------------------|--------------|--------------------------|---------------|
| <i>Scotland ...</i> | Glasgow | | Darlington |
| | Barrhead | | Sheffield |
| | Edinburgh | | Newcastle |
| | Kilmarnock | | North Shields |
| | Airdrie | <i>North-Western ...</i> | Manchester |
| | Dumbarton | | Liverpool |
| <i>North-Eastern ...</i> | Leeds | | Bolton |
| | Huddersfield | | Wigan |
| | Bradford | | Accrington |
| | Hebburn | | Crewe |
| | Jarrow | | Oswaldtwistle |
| | Hartlepool | | Church |
| | Ashington | | |

¹ Certain items of food which may have been eaten in the home were also omitted. See above, paragraph 4, page 1.

² See paragraph 31 below.

| <i>Region</i> | <i>Town</i> | <i>Town</i> | |
|-------------------------------------|--------------------------|----------------|--------------------|
| <i>Midlands...</i> | ... | Birmingham | Battersea |
| | | Stoke | Hampstead |
| | | Derby | Kingsbury |
| | | Chesterfield | Leyton |
| | | Kettering | Croydon |
| | | Leamington Spa | Uxbridge |
| | | Shrewsbury | West Drayton and |
| | | Worksop | Yiewsley |
| | | Nottingham | Willesden |
| | | Worcester | Southampton |
| | <i>South-Western ...</i> | ... | Bristol |
| | | Torquay | Ipswich |
| | | Saltash | Lowestoft |
| | | Bridgend | High Wycombe |
| | | Liskeard | Welwyn Garden City |
| | | Tavistock | Chatham |
| | | Plymouth | Tring |
| | | Gloucester | Harpenden |
| | | Taffswell | Portsmouth |
| | | Pontypridd | St. Albans |
| | | Cardiff | Huntingdon |
| <i>London and South-Eastern ...</i> | ... | Chelsea | Godmanchester |
| | | Deptford | Bedford |
| | | Islington | Brighton |
| | | Fulham | Slough |
| | | Greenwich | Newbury |
| | | Wandsworth | Gillingham |
| | | Paddington | Harwich |

Fieldwork : A. Placing the Log-book

12. The fieldwork was carried out by about 40 women investigators employed by the agency undertaking the fieldwork and editing the returns on behalf of the Ministry. The investigators worked in cycles of ten days, attempting to obtain from ten households completed log-books covering a period of a week. In practice, the average number of households which each investigator succeeded in covering during a cycle was about eight. Half the investigators worked a 10-day cycle beginning on a Monday, half a similar cycle beginning on a Thursday. The programme for a cycle beginning on a Monday was as follows :—

- Monday ... First call ; stock-weighing for addresses 1-5 on the list.
- Tuesday ... First call ; stock-weighing for addresses 6-10 on the list.
- Wednesday ... Recall on 1-5 ; replacement where necessary.
- Thursday ... Recall on 6-10.
- Friday ... Further recall on 1-5.
- Saturday ... Further recall on 6-10.
- Monday ... Final call ; stock-weighing 1-5.
- Tuesday ... Final call ; stock-weighing 6-10.
- Wednesday ... Final calls on late replacements and settling of queries.

Similarly, the cycle which began on a Thursday ended on the Saturday ten days later, so that each investigator worked a Monday and Thursday cycle alternately. At least four calls were made on each housewife and more if the investigator considered special assistance necessary to enable the housewife to keep a reliable record.

13. If, at the end of two days, the investigator had not succeeded in placing all her log-books with the informants originally selected, she attempted to complete her quota on the third day by choosing substitute informants in accordance with a prescribed procedure. Substitution was necessary if the investigator met with a refusal, whatever the reason ; if the housewife was away from home ; if no answer could be obtained ; or if the original address proved unsuitable. Care was taken in compiling the lists to exclude premises such as boarding-houses, hotels and public houses but it was not always possible, for example, to recognise them by the address. The investigator was instructed to ignore such addresses but to include shopkeepers provided they were able to give full details of any food taken from the shop. A further source of wastage

was households who agreed to keep a log-book, but failed to complete it. If this failure was apparent by the third day, the investigator was instructed to provide a substitute.

14. Substitutes were chosen by visiting in turn each house to the right of the original address until the investigator had succeeded in placing the log-book. This was admittedly a second best and the investigator was expected to make every effort to interview each housewife on her original list before selecting a substitute.

B. Completing the Log-book

15. The log-book used in the survey contained the following sections :¹

(1) A front page on which were entered the name and address of the housewife and the sex, age and occupation of all members of the household. These particulars were entered by the investigator during her first visit.

(2) A double-page for each day of the week divided into sections for recording :

(a) quantity and cost of all food purchased ;

(b) quantity and estimated value of all food obtained from other sources (for example gifts, gardens and allotments) ;

(c) dishes served at each meal provided in the household and the number of persons, including any visitors, present ;

(d) the number of meals eaten away from home by each member of the household and an indication of the place where each meal was taken.

(3) A final page with space for notes by the investigator and comments by the housewife.

(4) A detachable sheet, retained by the investigator, on which she entered the stocks of each food found in the household on her first and last visits, a summary of the quantities entering the household daily and of the daily consumption.

16. At the first call, the investigator explained the nature of the record to be kept by the housewife and under her direction all purchases of food made that day were recorded. Both the cost and exact weight were entered and where necessary the housewife was lent a spring balance by the investigator. At the same time, the investigator obtained the weight of each foodstuff in the larder for the stock record.

17. Where a bulk store of some foods was kept by the housewife (for example, stored vegetables or potatoes bought by the sack) the housewife was asked to weigh all items taken from the store, and record them as such. Alternatively, she might agree to put aside a smaller quantity weighed by the investigator for use during the week, without drawing further on her bulk store. Thus, from a large store of bottled fruits the housewife might put aside two or three bottles to use during the week. Home-made dishes already in the larder were recorded from the housewife's estimate of the ingredients, and home-made dishes made during the week were checked against purchases and withdrawals from store. Home-made foods such as jam, put into the larder during the survey week for storage, were specially treated.²

18. At subsequent calls, the times of which were arranged at the first call, the investigator ascertained whether an accurate daily record had been kept ; the weight and description of each purchase ; that all meals of each member had been accounted for ; and that food items comprising these meals had been drawn either from the stock list or from purchases. The actual quantities of foods eaten at the meals were not recorded, nor was any attempt made to determine the consumption by individual members of the households, but the housewife's description of the dishes she had served at each meal was found to provide a satisfactory check that all items purchased, or withdrawn from the larder during the survey week, were recorded.

19. The investigator's final call was made as far as possible exactly one week after the first call and between the same meals. At this call, the investigator carried out the second weighing of food stocks. In some instances, further calls were necessary after the completion of the log-book in order to settle queries arising during the editing of the data.

Editing and Tabulation

20. After checking the logs, the editing section of the agency concerned with the fieldwork transferred the information from each log-book to a single sheet in a form suitable for further transfer to punched cards. For each food, the total quantity consumed and purchased and the money expended on the purchase were recorded. Home-made foods found in the larder were converted back into their original

¹ Specimen front, double-page and stock-sheet are reproduced at the end of this Appendix.

² See paragraph 26 below.

ingredients, only those cakes, for example, purchased as such appearing on the transfer sheets against that item. The transfer sheets also contained details of household composition, the age, sex and occupation of each member of the household in coded form, and certain totals such as that of expenditure on food by the family during the survey week.

21. The work of the agency finished when the transfer sheets were completed and all further punching, tabulating and analysis was carried out by the Ministry of Food staff. As soon as the last queries were settled in the field, the log-books were retained by the Ministry as a permanent record of the Survey, after the agency had removed the name and address of the informant from the log-book to ensure that information relating to any individual family was kept confidential.

22. At monthly intervals the cards punched from the transfer sheets were assembled and tabulated. The counting of the number of households and persons in the sample, and the computation of the average consumption quantities and money expended on different foods, required a simple use of punched card procedure. The bulk of the machine work lay in the conversion of consumption quantities into their equivalents in terms of calories and nutrient equivalents and the computation of average nutrient intake figures. During the war years of the Survey, the conversion into calories and nutrient equivalents was done by an electric multiplying punch, when the average consumption quantities per person had been calculated. After the war the method was changed so that separate nutrient intake figures were computed for each individual household in the sample. This was possible by the use of a standing master ready-reckoner file of punched cards, about 70,000 in number, on which the calorie and nutrient equivalents for quantities, increasing by 1 oz. at a time up to the largest quantity likely to be recorded in a log-book, were filed for each type of food. The punched cards were retained for use in further analyses and monthly figures were later combined to give quarterly and annual averages.

Definition of a " Person "

23. Two important definitions had to be decided. The first related to the definition of " persons " in the surveyed households, and the second to the food " consumed " during the survey week.

24. As noted in paragraph 7 above, from 1943 onwards the members of the household were defined as those consuming at least 16 meals supplied by the housewife during the survey week, or proportionately less if the normal meal pattern was less than four a day. On this definition, the household extended further than the family in the biological sense and included lodgers, if their meals were provided by the housewife, and a member of the household could take at least every midday meal out without losing his status as a person in that household. The number of persons in a household thus defined corresponded with the number of ration books held by the housewife.

25. If " person " had been defined as a number taking rather more or rather less than 16 meals at home during the week, it would have made little difference either to the total number of persons included in a large sample of households or to the average figures of consumption per person. In a test analysis of 544 households surveyed in July 1948, for example, the numbers of individuals eating a given number of meals provided by the housewife were found to be as follows :—

TABLE 1
Number of Individuals eating 28 or less meals at home during the Survey week

| Number of meals | Number of individuals | Cumulative Totals |
|-----------------|-----------------------|-------------------|
| 25-28 | 1,530 | 1,530 |
| 20-24 | 247 | 1,777 |
| 19 | 9 | 1,786 |
| 18 | 13 | 1,799 |
| 17 | 6 | 1,805 |
| 16 | 7 | 1,812 (a) |
| 15 | 4 | 1,816 |
| 14 | 2 | 1,818 |
| 3-13 | 115 | 1,933 |
| 2 | 77 | 2,010 |
| 1 | 178 | 2,188 |

(a) Number of persons under present definitions.

Recording of Home-made Food

26. The second difficulty related to home-made foods. When stock measurements are introduced, home-made foods are logically best treated in terms of their ingredients, so that "consumption" would always mean the usage of foods in the form in which they enter the household, either as purchases or "free". But this is not practicable without great labour and the simpler alternative was adopted of recording stocks of home-made jam, for example, simply as so much jam. The difficulty in this method is that households which are adding to their stocks of home-made foods during the survey week may record a *negative* consumption of these foods when changes in stock levels are taken into account. On the other hand, the sugar and fruit turned into jam for storage will all be recorded as consumption of these particular foods. Apart from other reasons, the technical difficulty of dealing on the Hollerith machines with quantities some of which may be positive and some negative resulted in the adoption of a hybrid system whereby all home-made foods were recorded as the products and not the ingredients, except for those stocks made during the survey week. These were translated back into their ingredients so that the current value of jam could not appear in the closing stock of jam and the consumption of jam could not be negative. As a result, since the replenishing of stores during the survey week was disregarded in this way, the consumption of home-made foods was correspondingly overestimated when the stock level adjustments were made, and that of their ingredients underestimated. The effect of this distortion on the consumption estimate of a particular food depended upon the extent to which the home-made products normally contributed to larder stocks. For suet and dripping, it may have been appreciable.¹

Food Purchased and Consumed outside the home

27. The National Food Survey data relate to food purchased or obtained free for consumption in the home and for packed meals eaten outside the home, but prepared by the housewife. Although no similar records exist of food eaten in meals consumed outside the home, an attempt has been made to estimate their approximate energy value in order to provide a rough measure of the share in total consumption provided by the domestic diet.

28. An estimate of this kind can be made on the basis of the numbers and types of different meals eaten outside the home recorded in the log-books. Conversion into energy value can be made on the assumption that a meal taken outside the home has the same value as a similar meal eaten at home, and an average value calculated on the basis of the following weights: Breakfast 3, Dinner 4, Tea 1, Supper 2. The result suggests that approximately 6 per cent of total energy value is supplied by meals prepared and eaten outside the home. This is certainly an underestimate since no record is made in the log-books of snacks and items of food eaten between meals. Moreover, housewives whose families normally eat a large number of meals away from home are likely to be out when the investigator calls and these families are as a result under-represented in the sample.

29. An alternative estimate can be made on the basis of the Ministry's complete records of numbers and types of meals (breakfasts, main meals, subsidiary meals and tea meals) taken in catering establishments of all kinds. These records provide an enumeration of meals more exhaustive than the log-books and, by applying to them the calorie conversion factors deduced from the survey data, a figure of 250-300 calories a day, or 10 to 12 per cent of total intake, is obtained. For urban working-class households, it is probable that these figures are too high for it is known from the samples of middle-class households that outside meals play a more important part in the diet of these households than of the urban working-class. Considering the evidence from the log-books and from the Ministry's catering records together, it seems likely that the proportion of total energy value derived from outside meals by urban working-class households is nearer 8 to 10 per cent.

The Accuracy and Reliability of the Survey Figures

30. The accuracy of the information provided by the Survey depends on

- (a) the extent to which the households which supplied records formed a representative cross-section of the population studied;
- (b) the accuracy of the details given in each log-book;
- (c) the variability of food habits and consumption.

¹ See paragraph 86 above.

Of these, the last is probably the least important and the effect on the results is amenable to the usual statistical treatment applicable to sampling variations. The second factor and, to some extent, the first would have been operative even if the Survey had attempted to cover the whole population instead of a sample. Their effect is much more difficult to assess.

A. The Composition of the Sample compared with the Population

31. The procedure by which the households in the inquiry were selected should in principle have resulted in a sample representative of the urban working-class population of Great Britain. There are two qualifications to this. First, due to the restricted number of mobile investigators, the towns selected did not always give a sufficient weighting to the smaller towns, in particular those containing fewer than 50,000 inhabitants. This is unlikely to have affected the estimates of total consumption, but some bias may have been introduced into the composition of the diet, and statistics of purchases and consumption of fish and of some vegetables and other home-produced food may differ slightly from the population averages.

32. Secondly, certain types of housewives were less ready to co-operate or were more difficult to find at home. Of those pre-selected, about 20 per cent were out or away and could not be found after the third attempt by the investigator, while a further 30 per cent did not wish to co-operate because of sickness or, for example, the pressure of housework. Substitute households thus formed about half of the final sample, but the effect of the resulting bias, so far as the age and sex distribution of the sample is concerned, was not very marked. This is seen from the Table below, which compares the composition of the urban samples in 1946 with that of the civil population in the same period. The Survey figures are a weighted average of the working and middle-class samples, using a weight of 20 per cent for the latter.

TABLE 2
Age Composition of the civil population of Great Britain, 1946, actual and as represented by the Survey Sample

| | Actual (a) | Survey (b) |
|--|------------|------------|
| | % | % |
| <i>Children</i> : under 5 years | 8.0 | 11.3 |
| 5-13 years | 12.7 | 13.9 |
| <i>Adolescents</i> : (14 to 20 years) | 9.0 | 8.6 |
| <i>Adults</i> : (21 to 59 years) | | |
| males | 24.4 | 23.7 |
| females | 29.8 | 29.4 |
| <i>Adults</i> : (60 and over) | | |
| males | 6.9 | 5.3 |
| females | 9.2 | 7.8 |
| | 100.0 | 100.0 |

(a) Registrar General.

(b) Combined working-class and middle-class data (the latter weighted 20%); no allowance made for people living in hotels, institutions and similar establishments.

33. The principal difference is that children are over-represented and the reason for this is simply that women with young children were more frequently at home when the investigator called. There was little difference in this respect or in other details, such as the average expenditure per head, between households occurring on the pre-selected lists and the households replacing those where it was not possible to place a log-book, but the general result was that the Survey records showed a lower consumption than if the population had been exactly represented. Rough calculations suggest a difference of 50 to 100 calories per person per day.

34. The bias towards the larger towns and towards the households with children persisted throughout the period. There were also changes in the sample from one year to another that affected the comparability of the results. These included

(a) a more marked under-representation of the smaller towns in the war years when it was most difficult to recruit an adequate number of mobile investigators ;

- (b) the exclusion of repeat households after 1943 (paragraph 52 above) ;
- (c) the effect of evacuation which resulted in an under-representation of children in the earlier war years compared with subsequent years (see Introduction paragraph 7 above) ;
- (d) the effect of introducing a middle-class sample during the period 1944 to 1947 (paragraph 53 above).

Their importance, noted in the Report, was small.

C. The Accuracy of the Information given by the Housewife

35. The information supplied by the housewife was carefully checked at each stage to avoid the omission of any item and to ensure that the record covered all food items consumed in the house and all meals such as snacks or packed meals, made up from food purchased by the housewife, but there was still the possibility that the Survey itself would affect the food habits of the household. No direct comparison can be made but some light is indirectly thrown on the question by comparing purchases with consumption. During a short period these two items will differ because some food will be purchased and either not consumed that week, or consumed in part only, and the remainder added to store, while consumption of other items may be entirely from quantities in store. For individual families, stock variations in a week may be quite large, especially as many foods are bought less frequently than once a week. But, over a long period, stock changes should balance out so that average intake, as calculated from the total of food purchased and obtained free from gardens and allotments, should be the same as consumption. The Table below shows that this was not the case.

TABLE 3
Energy value of food recorded as purchased and as consumed 1943 to 1945

| | <i>Calories</i> | | |
|---|-----------------|-------|-------|
| | 1943 | 1944 | 1945 |
| Purchased and free food ... | 2,213 | 2,276 | 2,265 |
| Consumption | 2,272 | 2,387 | 2,375 |
| Consumption as percentage of purchases | 103% | 105% | 105% |

36. There was a tendency for purchases during the survey week to be about 5 per cent below normal and for stocks to be used to make good the difference. As the following results show, this did not affect all foods.

TABLE 4
Foodstuffs showing percentage excess of consumption above purchases plus free food 1943-1945

| | | |
|---|--------|----------------|
| Flour, bread, fish, milk and rationed meat | | less than 1% |
| Other meat (including canned meat), green vegetables and cheese | | 2-5% |
| Root vegetables and potatoes, sugar and jam, shell eggs, fats | | 6-9% |
| Biscuits, cakes and other cereal products, fruit (including canned fruit), other vegetables (including onions and canned vegetables), dried eggs, canned fish, condensed and dried milk, beverages | | 10% and above. |

37. Foods which deteriorate quickly on storage showed little discrepancy whereas those which can be stored for long periods, in particular canned goods, were drawn upon to a much greater extent during the survey week. This is to be expected. Each investigation takes about an hour of a housewife's time for several days during the course of the survey week and she may find herself unable to find the time to do all the shopping she would otherwise have done. When this happens, it is likely to be the foods with the longer storage life which are drawn on in the emergency since larger stores of these will normally be found in the larder. For these reasons, it is considered that the consumption records give a better estimate of the usual weekly household food supplies than records of actual purchases.

C. Sampling Variations

38. There remains finally the question of sampling variations. The unit of the sample was the household and an individual household may contain any number of persons from one even to sixteen or even eighteen on the Survey definitions. The extent of the variations is illustrated by the following Table:—

TABLE 5
Size of individual households in the Survey Sample 1946

| No. of Persons in Household | Percentage of Households in sample |
|-----------------------------|------------------------------------|
| 1 | 7.7 |
| 2 | 20.6 |
| 3 | 26.1 |
| 4 | 21.5 |
| 5 | 12.8 |
| 6 | 5.5 |
| 7 to 9 | 5.0 |
| 10 and above | 0.8 |

39. Further, when account is taken of the composition of the household in terms of the age, sex and occupation of each member and of the number of meals eaten at home, it will be realised that differences in the domestic food consumption of individual households, as measured, say, in calories, may be even greater. For example, out of 1,959 households surveyed during the first quarter of 1949, the household with the lowest total units of energy value during the week was a single person household (6,760 calories) while the household with the highest total intake was one containing ten persons (238,400 calories), giving a range of one to thirty-five in terms of calories as compared with a range of one to ten in terms of persons.

40. It is to be expected, therefore, that samples of the same number of households, obtained by the same methods, and with the same regional distribution, will show some variations in the results computed from them. Since average figures per person per week form the main basis of this report, this variation in the results has been estimated and is shown in Table 6, measured in terms of the percentage standard errors of the averages given in the report. These standard errors have been estimated in each case for samples of 2,000 urban working-class households, or approximately the number of households surveyed each quarter of the year. The relatively high figure shown for vitamin C reflects the fact that this vitamin is derived mainly from fresh fruit and vegetables, the consumption of which is highly variable in individual households.

TABLE 6
Percentage Standard Errors (samples of 2,000 households)

| | |
|---|------|
| Expenditure per head per week | 0.58 |
| Energy value (Calories) per head per day | 0.34 |
| Protein intake per head per day | 0.51 |
| Vitamin C intake per head per day | 1.10 |

41. Thus, in the first quarter of 1947, when the average energy value per head per day was 2,321 calories, based on 2,085 urban working-class households, a percentage standard error of 0.34 gave a standard error of 7.9 calories. From this it follows that 95 out of every 100 repeat samples taken under exactly the same conditions would have yielded estimates of average energy value lying between 2,305 and 2,337 calories. The percentage standard error of the annual averages given in the tables would be one-half of the errors shown above, since the annual figures are computed from approximately four times as many households.

42. Similar figures can be given (Table 7) for individual foodstuffs, but to some extent the results are influenced by the fineness of the grouping used. For example, rationed meat has been divided into five main groups and the percentage standard errors (again for samples of 2,000 households) range between 2.2 per cent and 2.7

per cent, except for pork, but taking all rationed meat together, the average consumption per person had a standard error of only 0.8 per cent. Although meat was a rationed commodity, an appreciable, if small, variation is shown. There are two reasons for this. Firstly, meat was rationed by value so that the actual quantity obtained varies with the cut and kind of meat purchased. Secondly, the consumption even of rationed commodities did not proceed at the same rate week after week. Part of one week's purchases could be carried over into the following week, or could be used for cooking, and not immediately consumed. The fact also that more than one week's ration could be obtained at a time, occasionally influenced consumption and caused it to be less regular. In the same way, while the percentage standard error for the consumption per head of all rationed fats was 0.5 per cent, the separate figures for the three constituents were between 0.8 per cent and 1.2 per cent. The variation in consumption of foods other than the rationed foods or the more important items is seen to be much larger, for the proportion of households consuming them in one week is usually smaller.

TABLE 7
Percentage Standard Errors in weekly per capita food consumption of samples of 2,000 Families

| | % | | % |
|------------------------------------|-----|--|-----|
| Corned beef | 2.6 | Other vegetables | 1.8 |
| Stewing beef | 2.7 | Self-raising flour | 1.6 |
| Other beef | 2.3 | Bread | 0.7 |
| Mutton and lamb | 2.2 | Cakes (including buns and scones) | 1.6 |
| Pork | 8.3 | Biscuits | 2.8 |
| Butter | 1.1 | Suet | 3.7 |
| Margarine | 0.8 | Syrup and treacle | 3.4 |
| Lard and cooking fat | 1.2 | Cocoa | 2.9 |
| Sugar | 0.8 | Coffee | 7.5 |
| Jam and rationed preserves (a) ... | 1.6 | Condensed milk | 3.7 |
| Tea | 0.7 | Dried milk | 6.8 |
| Liquid milk | 1.0 | Offal | 4.8 |
| Cheese | 1.2 | Rabbits, poultry, game | 8.8 |
| Shell eggs | 1.5 | Tomatoes | 2.6 |
| Dried egg (a) | 1.1 | Fresh fruit | 2.4 |
| Sausage | 2.3 | Dried fruit | 3.7 |
| Fish (fresh) | 2.4 | Plain flour | 7.2 |
| Potatoes | 1.2 | Oat products | 4.0 |
| | | Breakfast cereals | 3.3 |

(a) 1946

All the figures relate to consumption. Purchases are in most cases more variable than consumption and the corresponding percentage standard errors are higher since some of the irregularity of purchases is cushioned by larger stocks.

DAY

Section III. MEALS AT HOME

| | | | |
|--|--|--|-------------------------------------|
| Please give a brief description of what you served at each meal and the persons present. If you had visitors, enter each one in the visitors columns. | | Persons eating each meal | |
| | | HOUSEHOLD Persons on front of log | VISITORS TO BREAKFAST SEX AGE |
| Breakfast | | NO. | |
| | | | |
| | | | |
| | | | |
| Taken from home to eat out | | Person taking | |
| Dinner | | NO. | |
| | | | |
| | | | |
| | | | |
| Taken from home to eat out | | Person taking | |
| Tea | | NO. | |
| | | | |
| | | | |
| | | | |
| Taken from home to eat out | | Person taking | |
| Supper | | NO. | |
| | | | |
| | | | |
| | | | |
| Taken from home to eat out | | Person taking | |

Section IV. MEALS AWAY FROM HOME

| PERSON EATING OUT | | TYPE OF MEAL | PLACE | PERSON EATING OUT | | TYPE OF MEAL | PLACE |
|----------------------|-----|--------------|-------|----------------------|-----|--------------|-------|
| SEX | AGE | | | SEX | AGE | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
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| | | | | | | | |
| | | | | | | | |

APPENDIX B

The National Food Survey

Estimated Food Consumption in Urban Working-Class Households 1942 (a) to 1949

per head per week

| Foods | 1942 | 1943 | 1944 | 1945 | 1946 | 1947 (c) | 1948 (d) | 1949 |
|---|------|-------|-------|-------|-------|-------------|-------------|------|
| Liquid milk pints | 3.5 | 3.9 | 4.0 | 4.1 | 4.0 | 4.0 | 4.1 | 4.4 |
| Condensed and dried milk ... equivalent pints | 0.3 | 0.4 | 0.4 | 0.3 | 0.4 | 0.4 | 0.3 | 0.4 |
| All milk pints or equivalent pints | 3.8 | 4.3 | 4.4 | 4.4 | 4.4 | 4.4 | 4.4 | 4.8 |
| Cheese oz. | 3.6 | 3.1 | 2.6 | 2.5 | 2.5 | 2.3 | 1.9 | 2.2 |
| Rationed meat oz. | 13.8 | 14.2 | 14.2 | 13.8 | 13.7 | 12.9 | 11.6 | 11.4 |
| Corned beef oz. | — | — | — | 0.7 | 1.3 | 2.2 | 1.1 | 0.6 |
| Canned meats oz. | 1.4 | 1.3 | 1.7 | 1.6 | 1.7 | 1.9 | 1.1 | 0.7 |
| Sausages oz. | 4.0 | 3.8 | 4.1 | 3.9 | 4.2 | 4.1 | 4.7 | 4.2 |
| Miscellaneous meats (b) oz. | 3.1 | 2.9 | 3.8 | 2.8 | 2.6 | 2.2 | 2.4 | 3.1 |
| Bacon oz. | 4.0 | 4.0 | 4.6 | 3.5 | 3.2 | 2.2 | 2.1 | 2.7 |
| All meats oz. | 26.3 | 26.2 | 28.4 | 26.3 | 26.7 | 25.5 | 23.0 | 22.7 |
| Fish (other than canned) oz. | 6.0 | 5.7 | 6.5 | 8.2 | 9.6 | 8.8 | 9.4 | 8.0 |
| Canned fish oz. | 0.6 | 0.9 | 1.2 | 1.0 | 0.9 | 0.8 | 0.4 | 0.4 |
| All fish oz. | 6.6 | 6.6 | 7.7 | 9.2 | 10.5 | 9.6 | 9.8 | 8.4 |
| Eggs, shell no. | 0.9 | 0.8 | 0.9 | 1.3 | 1.4 | 1.6 | 1.9 | 2.8 |
| Eggs, dried equivalent no. | 0.5 | 1.4 | 2.0 | 1.7 | 1.1 | 0.7 | 0.4 | 0.1 |
| All eggs no. or equivalent no. | 1.4 | 2.2 | 2.9 | 3.0 | 2.5 | 2.3 | 2.3 | 2.9 |
| Butter oz. | 2.0 | 2.0 | 2.1 | 2.2 | 2.8 | 2.9 | 3.2 | 3.5 |
| Margarine oz. | 4.2 | 4.2 | 4.3 | 4.2 | 3.5 | 3.3 | 3.9 | 4.2 |
| Cooking fats, rationed oz. | 1.8 | 2.0 | 2.0 | 1.5 | 1.2 | 1.0 | 1.1 | 2.1 |
| Suet and dripping oz. | 0.7 | 0.6 | 0.9 | 0.8 | 0.8 | 0.6 | 0.7 | 0.9 |
| All fats oz. | 8.7 | 8.8 | 9.3 | 8.7 | 8.3 | 7.8 | 8.9 | 10.7 |
| Tomatoes oz. | 2.5 | 2.8 | 2.4 | 2.6 | 2.9 | 4.9 | 5.3 | 5.8 |
| Other fresh fruit oz. | 6.9 | 7.9 | 9.2 | 11.2 | 10.7 | 14.1 | 14.8 | 13.6 |
| Canned and bottled fruit oz. | 1.3 | 0.8 | 0.7 | 0.6 | 0.9 | 1.5 | 1.7 | 1.8 |
| Dried fruit and nuts oz. | 1.5 | 1.2 | 1.6 | 1.5 | 1.2 | 1.2 | 1.0 | 1.2 |
| All fruit oz. | 12.2 | 12.7 | 13.9 | 15.9 | 15.7 | 21.7 | 22.8 | 22.4 |
| Potatoes oz. | 66.2 | 68.6 | 69.0 | 65.7 | 70.5 | 67.2 | 61.6 | 65.4 |
| Chips oz. | 2.3 | 2.6 | 2.4 | 2.8 | 3.3 | 3.7 | 4.4 | 3.5 |
| Fresh green vegetables oz. | 11.9 | 15.1 | 16.1 | 14.7 | 14.9 | 9.3 | 13.1 | 12.1 |
| Fresh peas and beans oz. | 3.5 | 4.0 | 3.9 | 3.9 | 2.8 | 3.3 | 4.3 | 2.8 |
| Carrots oz. | 3.9 | 3.8 | 3.8 | 3.9 | 3.6 | 3.1 | 3.5 | 2.8 |
| Other root vegetables and miscellaneous fresh vegetables oz. | 9.5 | 8.9 | 10.6 | 10.0 | 9.2 | 10.2 | 8.5 | 8.7 |
| Canned and dried vegetables oz. | 2.6 | 2.8 | 2.9 | 3.9 | 4.1 | 4.9 | 3.3 | 4.6 |
| All vegetables oz. | 99.9 | 105.8 | 108.7 | 104.9 | 108.4 | 101.7 | 98.7 | 99.9 |
| Bread oz. | 60.6 | 59.7 | 59.9 | 61.8 | 59.9 | 62.5 | 65.3 | 61.1 |
| Flour oz. | 6.4 | 6.9 | 7.1 | 6.2 | 6.1 | 5.4 | 6.2 | 6.9 |
| Biscuits oz. | 2.6 | 1.8 | 2.0 | 2.9 | 2.6 | 2.2 | 2.6 | 2.9 |
| Cakes, buns and scones oz. | 7.0 | 8.4 | 9.6 | 10.4 | 9.5 | 9.4 | 10.4 | 9.2 |
| Oatmeal and oat products oz. | 1.7 | 1.3 | 1.4 | 1.3 | 1.3 | 1.2 | 1.3 | 1.2 |
| Breakfast cereals oz. | 0.8 | 0.8 | 0.9 | 0.9 | 1.0 | 1.1 | 1.5 | 1.5 |
| Other cereal foods oz. | 2.4 | 2.4 | 2.4 | 2.0 | 2.1 | 2.1 | 2.5 | 2.6 |
| All cereal foods oz. | 81.5 | 81.3 | 83.3 | 85.5 | 82.5 | 83.9 | 89.8 | 85.4 |
| Sugar oz. | 8.4 | 8.7 | 9.1 | 9.1 | 9.6 | 10.2 | 10.5 | 10.9 |
| Preserves oz. | 4.9 | 5.2 | 6.1 | 5.5 | 5.4 | 5.5 | 5.0 | 6.2 |

(a) No consumption figures available for 1940 and 1941.

(b) Offals, rabbits, poultry, game and cooked meats.

(c) Nine months' average.

(d) Ten months' average.

The National Food Survey
Food Purchases in Urban Working-Class Households 1940 to 1949

per head per week

| FOODS | 1940 | | 1941 | 1942 | 1943 | 1944 | 1945 | 1946 | 1947 (b) | 1948 (c) | 1949 | | | | | | | | | | | |
|---|------------|------------|------|------|------|------|------|------|-------------|-------------|------|------|------|------|------|------|------|------|------|-----|------|------|
| | July 28 | Oct. 03 | | | | | | | | | | | | | | | | | | | | |
| Liquid milk pints | 2.8 | 3.1 | 3.3 | 3.4 | 3.8 | 3.9 | 4.1 | 3.9 | 3.8 | 3.9 | 4.1 | | | | | | | | | | | |
| Condensed and dried milk equivalent pints | 0.5 | 0.3 | 0.2 | 0.3 | 0.3 | 0.4 | 0.3 | 0.4 | 0.4 | 0.4 | 0.3 | | | | | | | | | | | |
| All milk pints or equivalent pints | 3.3 | 3.4 | 3.5 | 3.7 | 4.1 | 4.3 | 4.4 | 4.3 | 4.2 | 4.3 | 4.4 | | | | | | | | | | | |
| Cheese oz. | 3.0 | 2.7 | 1.9 | 3.5 | 3.0 | 2.5 | 2.4 | 2.4 | 2.2 | 1.9 | 2.1 | | | | | | | | | | | |
| Rationed meat oz. | 18.1 | 19.0 | 13.4 | 13.8 | 14.0 | 14.0 | 13.7 | 13.6 | 12.8 | 11.6 | 11.4 | | | | | | | | | | | |
| Corned beef oz. | — | — | — | — | — | — | 0.7 | 1.3 | 2.0 | 1.0 | 0.5 | | | | | | | | | | | |
| Canned meats oz. | 0.6 | 0.5 | 0.5 | 1.4 | 1.3 | 1.6 | 1.6 | 1.6 | 1.8 | 0.6 | 0.7 | | | | | | | | | | | |
| Sausages oz. | 3.3 | 4.3 | 4.2 | 4.0 | 3.7 | 4.0 | 3.8 | 4.2 | 4.1 | 4.7 | 4.2 | | | | | | | | | | | |
| Miscellaneous meats (a) oz. | 4.0 | 5.5 | 5.5 | 3.0 | 2.8 | 3.5 | 2.6 | 2.4 | 2.0 | 2.8 | 2.9 | | | | | | | | | | | |
| Bacon oz. | 3.1 | 2.8 | 3.9 | 3.9 | 3.9 | 4.5 | 3.4 | 3.1 | 2.1 | 2.0 | 2.6 | | | | | | | | | | | |
| All meats oz. | 29.1 | 32.1 | 27.5 | 26.1 | 25.7 | 27.6 | 25.8 | 26.2 | 24.8 | 22.7 | 22.3 | | | | | | | | | | | |
| Fish (other than canned) oz. | 4.9 | 3.4 | 4.7 | 5.8 | 5.6 | 6.3 | 8.1 | 9.5 | 8.7 | 8.6 | 7.8 | | | | | | | | | | | |
| Canned fish oz. | 1.5 | 1.4 | 1.0 | 0.6 | 0.8 | 1.0 | 0.9 | 0.9 | 0.7 | 0.4 | 0.4 | | | | | | | | | | | |
| All fish oz. | 6.4 | 4.8 | 5.7 | 6.4 | 6.4 | 7.3 | 9.0 | 10.4 | 9.4 | 9.0 | 8.2 | | | | | | | | | | | |
| Eggs, shell no. | 2.7 | 2.0 | 1.4 | 0.9 | 0.6 | 0.6 | 1.0 | 1.1 | 1.3 | 1.6 | 2.3 | | | | | | | | | | | |
| Eggs, dried equivalent no. | — | — | — | 0.5 | 1.2 | 1.8 | 1.5 | 0.9 | 0.6 | 0.3 | 0.1 | | | | | | | | | | | |
| All eggs no. or equivalent no. | 2.7 | 2.0 | 1.4 | 1.4 | 1.8 | 2.4 | 2.5 | 2.0 | 1.9 | 1.9 | 2.4 | | | | | | | | | | | |
| Butter oz. | 3.4 | 1.8 | 2.3 | 1.9 | 2.0 | 2.0 | 2.1 | 2.7 | 2.8 | 3.0 | 3.4 | | | | | | | | | | | |
| Margarine oz. | 3.6 | 3.9 | 4.1 | 4.0 | 4.0 | 4.1 | 3.9 | 3.3 | 3.1 | 3.7 | 4.0 | | | | | | | | | | | |
| Cooking fats, rationed oz. | 1.5 | 0.9 | 1.5 | 1.8 | 1.9 | 1.9 | 1.5 | 1.2 | 1.0 | 1.0 | 2.1 | | | | | | | | | | | |
| Suet and dripping oz. | 0.8 | 1.1 | 0.6 | 0.4 | 0.5 | 0.5 | 0.3 | 0.4 | 0.3 | 0.4 | 0.4 | | | | | | | | | | | |
| All fats oz. | 9.3 | 7.7 | 8.5 | 8.1 | 8.4 | 8.5 | 7.8 | 7.6 | 7.2 | 8.1 | 9.9 | | | | | | | | | | | |
| Tomatoes oz. | 3.8 | 2.1 | 1.2 | 2.3 | 2.3 | 1.9 | 2.0 | 2.6 | 4.5 | 4.9 | 5.3 | | | | | | | | | | | |
| Other fresh fruit oz. | 9.4 | 11.6 | 4.7 | 7.0 | 6.3 | 7.5 | 9.6 | 9.3 | 12.2 | 12.8 | 11.8 | | | | | | | | | | | |
| Canned and bottled fruit oz. | 3.5 | 2.7 | 0.8 | 1.0 | 0.5 | 0.2 | ... | 0.3 | 0.7 | 1.2 | 1.2 | | | | | | | | | | | |
| Dried fruit and nuts oz. | 1.3 | 1.5 | 1.0 | 1.3 | 1.2 | 1.6 | 1.5 | 1.3 | 1.2 | 1.2 | 1.3 | | | | | | | | | | | |
| All fruit oz. | 18.0 | 17.9 | 7.7 | 11.6 | 10.3 | 11.2 | 13.1 | 13.5 | 18.6 | 20.1 | 19.6 | | | | | | | | | | | |
| Potatoes oz. | 48.7 | 62.4 | 69.4 | 62.4 | 61.1 | 62.4 | 59.7 | 65.7 | 62.1 | 54.8 | 61.0 | | | | | | | | | | | |
| Chips oz. | | | | | | | | | | | | | | | | | | | | | | |
| Fresh green vegetables oz. | | | | | | | | | | | | 8.0 | 13.2 | 10.9 | 11.8 | 11.7 | 12.6 | 12.6 | 12.9 | 8.0 | 11.0 | 10.2 |
| Fresh peas and beans oz. | | | | | | | | | | | | 16.4 | 1.1 | 3.2 | 3.5 | 2.6 | 2.8 | 2.9 | 2.0 | 2.6 | 3.0 | 2.1 |
| Carrots oz. | | | | | | | | | | | | 9.7 | 15.5 | 4.9 | 3.4 | 3.5 | 3.4 | 3.6 | 3.4 | 2.8 | 3.1 | 2.7 |
| Other root vegetables and miscellaneous fresh vegetables oz. | | | | | | | | | | | | | | | | | | | | | | |
| Canned and dried vegetables oz. | | | | | | | | | | | | | | | | | | | | | | |
| All vegetables oz. | 84.3 | 94.4 | 99.3 | 94.6 | 90.8 | 94.3 | 93.2 | 98.7 | 92.2 | 86.6 | 91.2 | | | | | | | | | | | |
| Bread oz. | 58.1 | 57.6 | 60.5 | 59.5 | 59.1 | 59.3 | 61.0 | 59.1 | 61.9 | 64.7 | 60.0 | | | | | | | | | | | |
| Flour oz. | 11.5 | 10.5 | 12.9 | 6.4 | 6.7 | 7.4 | 6.4 | 6.1 | 5.5 | 6.5 | 7.2 | | | | | | | | | | | |
| Biscuits oz. | 2.9 | 2.8 | 2.6 | 2.5 | 1.7 | 1.8 | 2.7 | 2.5 | 2.1 | 2.4 | 2.8 | | | | | | | | | | | |
| Cakes, buns and scones oz. | 5.1 | 5.7 | 6.3 | 6.3 | 7.9 | 8.3 | 9.1 | 8.3 | 8.3 | 9.4 | 8.5 | | | | | | | | | | | |
| Oatmeal and oat products oz. | 1.1 | 1.5 | 1.4 | 1.5 | 1.1 | 1.3 | 1.2 | 1.2 | 1.1 | 1.3 | 1.1 | | | | | | | | | | | |
| Breakfast cereals oz. | 3.2 | 1.0 | 0.7 | 0.7 | 0.7 | 0.8 | 0.9 | 0.9 | 1.0 | 1.4 | 1.4 | | | | | | | | | | | |
| Other cereal foods oz. | | | | | | | | | | | | 2.2 | 2.2 | 2.1 | 2.0 | 2.2 | 1.7 | 1.9 | 2.0 | 2.4 | 2.4 | |
| All cereal foods oz. | 81.9 | 81.3 | 86.6 | 79.0 | 79.2 | 81.1 | 83.0 | 80.0 | 81.9 | 88.1 | 83.4 | | | | | | | | | | | |
| Sugar oz. | 10.6 | 7.9 | 8.6 | 8.4 | 8.8 | 9.1 | 9.1 | 9.8 | 10.4 | 10.7 | 10.8 | | | | | | | | | | | |
| Preserves oz. | 4.3 | 3.3 | 4.0 | 3.6 | 4.5 | 4.8 | 4.3 | 4.5 | 4.5 | 5.0 | 5.2 | | | | | | | | | | | |

(a) Offals, rabbits, poultry game and cooked meats. For 1941 pies included.

(b) Nine months' average.

(c) Ten months' average.

... less than 0.05.

Note.—For 1940 and 1941 certain items are grouped since no separate figures are available.

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