

## Domestic Food Consumption

 and Expenditure, 1952ANNUAL REPORT
OF THE
NATIONAL FOOD SURVEY COMMITTEE

## LONDON <br> HER MAJESTV'S STATIONERY OFFICE

## 1954



## MINISTRY OF FOOD

# DOMESTIC FOOD CONSUMPTION AND EXPENDITURE, 1952 

ANNUAL<br>REPORT OF THE<br>NATIONAL FOOD SURVEY<br>COMMITTEE

## LONDON

# THE NATIONAL FOOD SURVEY COMMITTEE 

Norman C. Wright, M.A., D.Sc., Ph.D., F.R.I.C., Ministry of Food, Chairman
M. Compton, Ministry of Food, Vice-Chairman
M. A. Abrams, Ph.D.(Econ.), Director of Research, London Press Exchange Ltd.
H. S. Booker, M.Sc.(Econ.), London School of Economics.
C. J. Brown, Ministry of Food

Miss I. Leitch, O.B.E., M.A., D.Sc., Director of the Commonwealth Bureau of Animal Nutrition
E. M. H. Lloyd, C.B., C.M.G., Ministry of Food
H. E. Magee, D.Sc., M.R.C.P., Ministry of Health

Professor E. F. Nash, M.A., Department of Agricultural Economics, University College of Wales
R. E. Stedman, Ministry of Food

Miss D. F. Hollingsworth
A. H. J. Baines
$\}$ Secretaries

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## PREFACE

The year 1952 was the first in which the National Food Survey not only covered all sections of the population but operated throughout every individual month. Such continuity and national coverage bad not previously been achieved together, but the simplified field work introduced in June 1951 (1) has now made this possible.

The present volume broadly follows the lines adopted in 1950 and 1951, and it is proposed to adhere to the same general arrangement in future, while directing attention from time to time to certain special aspects of the diet. Thus the present Report includes inter alia very full data on the seasonal variations in the consumption of fruit and vegetables, and on the relation of the number of children in the family to food expenditure, while the place in the diet of school meals and of school milk, and more generally of meals eaten outside the home, are discussed in appendices. Detailed tables showing the contributions of different foods to the energy value and nutrient content of the diet are also contained in an appendix.

Mr. W. L. Kendall, who had been Joint Secretary of the National Food Survey Committee since 1949, was transferred to another Department at an early stage in the preparation of the Report. The sections on food consumption, expenditure and prices were in consequence prepared by Mrs. E. H. Gibson, while Mr. A. H. J. Baines undertook the later stages of revision. As in previous years Miss D. F. Hollingsworth has been responsible for the sections on energy value and nutrient composition. The Committee desire to express their thanks to these officers of the Ministry, as well as to their other colleagues in the Ministry's Statistics and Intelligence Division and Scientific Adviser's Division, for the way in which they have implemented the Committee's recommendations.

Finally, the Ministry and the Committee desire once again to express their indebtedness to the many housewives who, with the assistance of the field staff of the London Press Exchange, have provided the information on which the Survey is based.

Norman C. Wright, Chairman, National Food Survey Committee

July, 1954.

[^0]
## I. INTRODUCTION

1. In 1950 the National Food Survey, which had previously been confined to urban working class households and special samples, was extended to provide for the first time a national sample of household food budgets. This enabled a comparison of the diets of different social classes and different types of family to be made, and such analyses have been continued in subsequent years. During 1951 the survey technique was further improved; the changes were fully described in the Annual Report for that year ( ${ }^{1}$ ) and are summarized in Appendix A of the present Report, which also contains details of the composition of the sample in 1952. The new methods were continued in 1952 without further change, and made it possible to obtain a more representative sample of about 3,000 households per quarter. This was therefore the first complete year in which the Survey sample was continuous and on a national basis. In 1950 and the first half of 1951 the sample had represented all classes, but the Survey had been conducted only in the first two months of each quarter; in earlier years the Survey had been continuous but did not cover all classes.
2. The results for the second half of the year are strictly comparable with those for July-September, 1951, and comparisons of expenditure should be confined to those quarters. For total value of consumption, comparisons are possible on an annual basis, in spite of the changes in technique, but for a few individual foods the continuity of the consumption series is more doubtful. For this reason the Annual Report for 1951 did not deal with seasonal movements. In the present Report a section has been devoted to seasonal changes, with particular reference to fruit and vegetables.
3. Now that the Survey has continued on a national basis for three years, it is possible to take a broader view of the results and to describe general features with less comment on the detailed figures. In this Report, therefore, some compression is justified. The findings for 1952 are summarized in the text and more detailed results will be found in the tables. The basic tabulations of Survey data, which will be preserved for reference, give full particulars of consumption and expenditure for each social class and family type in respect of 106 foods, but in the sections of the Report dealing with social class and household composition a simplified, though nonetheless comprehensive list of 27 food groups has been used. The Report again includes tables showing the energy value and nutrient content of the diet of different groups, compared with standards based on the British Medical Association's recommendations.

## II. FOOD SUPPLIES AND PRICES, 1952

4. During the early part of 1952 food supplies were adversely affected by the import restrictions which had to be imposed at the end of 1951, and the national diet, though much the same in quantity, was somewhat less varied and attractive than in the two previous years. After this initial setback the supply position improved, the extent of recovery being well illustrated in the subsequent provisional figures for 1953.

1 Domestic Food Consumption and Expenditure, 1951: H.M.S.O., 1953.
5. Table 1 summarizes the changes in supply of the principal foods between 1950 and 1953 and also includes, for comparison, the position in 1934-38.

TABLE 1
Changes in Supplies of Principal Foods(a), 1950-53 and Pre-War

(a) Ministry of Food Bulletir No. 755, 29th May 1954, and Economic Survey, 1954 (Cmd 9108). Some of these figures have been revised to conform with revision of supply data Tomatoes and tomato products have been included with fruit (in terms of fresh equivalent) to conform with National Food Survey practice.
(b) Excludes usage for brewing and distilling.
6. Supplies of meat (including bacon and unrationed meats) which had fallen to a low level in 1951, increased by 11 per cent. in 1952 and a further 11 per cent. in 1953. As a corollary to this, there were corresponding decreases in supplies of fish, poultry and game and of cereal products and potatoes. Other food groups to show a significant improvement between 1951 and 1953 were tea and sugar; supplies of tea increased by 16 per cent., and although supplies of sugar and syrups decreased temporarily in 1952, this reduction was more than made good in 1953, when supplies were 5 per cent. higher than in 1951. The reductions in the supplies of certain other foods in 1952 were associated with the critical state of the balance of payments; this affected butter and cheese particularly. However, by 1953 supplies of both these foods had markedly improved.
7. Compared with the position before the war, the most important differences to note are the greatly increased supplies of milk and also of potatoes (though consumption was declining), the continued shortfall in meat supplies and the replacement of butter by margarine. Four main food groups were still 10 per cent. or more below the pre-war level in 1952, but by 1953 these were reduced to only two, namely meat, and fish, poultry and game. All the estimates are on a per head basis, and therefore make allowance for the population increase.
8. The average ration levels (normal adult entitlement per week) are shown in Table 2, and reflect the supply position.

TABLE 2
Average weekly rations, 1950-53

|  |  |  | 1950 | 1951 | 1952 | 1953 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Fresh carcase meat (a) | $\ldots$ | d. | 24.5 | $17 \cdot 5$ | $20 \cdot 2$ | $24 \cdot 7$ |
| Bacon | ... | oz. | $4 \cdot 4$ | $3 \cdot 9$ | $4 \cdot 7$ | $4 \cdot 9$ |
| Butter ... | $\ldots$ | oz. | $4 \cdot 4$ | $3 \cdot 7$ | $2 \cdot 7$ | $3 \cdot 4$ |
| Margarine ... | ... | Oz | $4 \cdot 0$ | $4 \cdot 0$ | $4 \cdot 3$ | $4 \cdot 2$ |
| Cooking Fat | ... | oz. | $2 \cdot 1$ | $2 \cdot 0$ | $2 \cdot 0$ | $2 \cdot 0$ |
| Cheese | ... | Oz. | 2.0 | $2 \cdot 0$ | $1 \cdot 2$ | 1.8 |
| Sugar (b) | $\ldots$ | oz. | $10 \cdot 6$ | 11.8 | 10.9 | $13 \cdot 3$ |
| Tea (c) |  | oz. | $2 \cdot 3$ | $2 \cdot 0$ | $2 \cdot 2$ | - |

(a) For the sake of comparability, the rations have been converted to their value at 1953 prices. In the second half of 1953 extra quantities were issued for sale off the ration: an additional 2 d . worth for 8 weeks and an additional $6 d$. worth for 13 weeks.
(b) Sugar was derationed from 27th September 1953.
(c) Tea was derationed from 5th October 1952.
9. The most marked changes between 1951 and 1952 were increases of 15 per cent. in the bacon ration, and decreases of 27 per cent. and 40 per cent. for butter and cheese respectively. These reductions were very nearly restored, however, in 1953, when the meat and bacon rations were also raised by a further 22 per cent. and 4 per cent. to levels above those obtaining in 1950.
10. Two inter-related features of the diet in 1952 call for particular comment: the resumption of the trend towards decontrol, which had been interrupted by the Korean war, and the steady increase in food expenditure, attributable both to the inflationary movement within the national economy and to the policy of reducing or removing subsidies as a step towards the restoration of a free market. The Ministry of Labour's official statistics of earnings and retail prices show that average weekly earnings kept in step with the general price level, as follows:-

|  |  | 1950 | 1951 | 1952 |  |
| :--- | :--- | :--- | ---: | ---: | ---: |
| Index of average weekly earnings $(a)$ | $\ldots$ | 100 | 110 | 119 |  |
| Index of retail prices | ... | ... | ... | 100 | 110 |
| 119 |  |  |  |  |  |

(a) Based on figures for April and October in each year.
11. Food prices advanced more rapidly than the general index, since the increase in the price of food was offset during 1952 by reductions in the prices of clothing and household durable goods. Household food expenditure kept pace with food prices, as follows:-

|  |  | 1950 | 1951 | 1952 |
| :--- | ---: | ---: | ---: | ---: |
| Index of retail food prices ${ }^{1}$ | $\ldots$ | 100 | 112 | 129 |
| Household food expenditure ${ }^{1}$ | $\ldots$ | 100 | 113 | 129 |

12. As judged by the survey data there was, in line with the supply figures in Table 1, a slight fall in the energy value of the average diet between 1950 and 1952, both in absolute terms and in relation to estimated requirements. The
[^1]1953 survey figures, however, furnish independent evidence that this trend has since been reversed.

| Per head per day | 1950 | 1951 | 1952 | 1953 |
| :---: | ---: | ---: | ---: | ---: |
| Energy value of the household diet <br> (calories) $\ldots . \ldots$.... <br> Energy value as percentage <br> cof <br> lecommended allowance | 2,474 | 2,466 | 2,447 | 2,520 |

In comparing the energy value of the diet with the standard adopted, an adjustment (fixed at 10 per cent. as in previous years) has been applied to allow for plate and other wastage within the home. The basis of the calculation is such that a one or two per cent. fall below the standard is not significant. Although from Table 1 it appears that a slightly more marked decrease in energy value took place between 1950 and 1952, it should be pointed out that these "consumption level" estimates include meals obtained outside the home, sweets, ice-cream and soft drinks. Such items of personal consumption, together with small food losses and weighing-up allowances at the retail level, are responsible for the difference (about 500 calories per head) between the two sets of estimates, which are thus neither interchangeable nor directly comparable.
13. In order to meet the increased cost of the diet, consumers devoted an increasing proportion of their expenditure to food. It is estimated that food accounted for $31 \cdot 1$ per cent. of total personal expenditure on consumer's goods and services in 1952, compared with 29.7 per cent. in 1951 and 29.8 per cent. in 1938.
14. In Table 3 changes in domestic expenditure on food during 1952 are related to changes in prices, wage rates, estimated weekly earnings and the energy content of the household diet. Data for earlier years are not strictly comparable because of changes in Survey technique in June 1951, and in the construction of the Interim Index of Retail Prices in January 1952. Comparisons with 1950 and 1951 have therefore not been included.

TABLE 3
Household Food Expenditure, Wages and Prices, 1952

|  | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter |
| :---: | :---: | :---: | :---: | :---: |
| Weekly wage rates (a) | 100 | 102 | 102 | 105 |
| Estimated weekly earnings (a) (c)... | 101 | 102 | 102 | 105 |
| Interim Index of Retail Prices: <br> All items (a) | 100 | 103 | 103 | 104 |
| Food (a) ${ }_{\text {all }} \ldots$ | 100 | 106 | 107 | 108 |
| Household food expenditure (b) ... | 100 | 108 | 107 | 112 |
| Energy value as percentage of recommended allowance | 98 | 98 | 98 | 101 |

(a) January $1952=100$.
(b) January-March $1952=100$.
(c) Official estimates for April and October, interpolated by monthly index of weekly wage rates.
15. The gap between wages and food prices widened rapidly during the earlier part of the year, and the energy value of the diet fell slightly below the recommended allowance. Food prices reflected the first instalment of the Budget increases in June, but then showed a seasonal downward trend until September, followed by a rise in October on completion of the Budget operation. Wage
rates rose sharply in November, and the last quarter of the year may be characterised as a period of almost stationary prices and increasing food consumption and expenditure.
16. The indices shown in Table 3 are of general import only. The pattern of the diet changed during the year in a number of ways, and the diets of different social classes and of different family types showed varying trends.

## III. THE HOUSEHOLD DIET IN 1952

## FOOD EXPENDITURE AND PRICES

17. Changes in total food expenditure and the value of consumption during the year are shown in Table 4. The fourth quarter of 1951 is included as a link for comparison. "Free" food consists of supplies obtained free of cost from a garden, allotment or farm, or from an employer. These free supplies are valued at current prices and are added to the food expenditure to give the total value of food obtained for consumption. The value of consumption increased by 1 s . 10 d . per head per week between the first and second quarters and continued to rise slightly.

TABLE 4
Household Food Expenditure and Value of Food obtained for Consumption, 1952

|  |  | per head per week |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1951 | 1952 |  |  |  |  |
|  | $\begin{gathered} \text { 4th } \\ \text { Quarter } \end{gathered}$ | 1st <br> Quarter | $\begin{aligned} & \text { 2nd } \\ & \text { Quarter } \end{aligned}$ | 3rd Quarter | $\stackrel{\text { 4th }}{\text { Quarter }}$ | Annual average |
| Expenditure on food Value of free food (a) | $\begin{array}{cr}\text { s. } & \text { d. } \\ 18 & 10 \\ & 7\end{array}$ | s. $\begin{array}{r}\text { d. } \\ 19 \\ \\ \\ \hline\end{array}$ | $\begin{array}{cc}\text { s. } & \text { d. } \\ 20 & 11 \\ & 10\end{array}$ | $\begin{array}{rr}\text { s. } & \text { d. } \\ 20 & 8 \\ 1 & 4\end{array}$ | $\begin{array}{cr}\text { s. } & \text { d. } \\ 21 & 7 \\ & 6\end{array}$ | s. 20 20 8 10 |
| Total value of consumption | 195 | 1911 | 219 | 220 | 221 | 216 |

(a) Includes withdrawals from stocks of certain home-produced foods.
18. The approach to a pre-war pattern of expenditure is illustrated in the accompanying Chart, which shows the proportion of expenditure devoted to different food groups. The pre-war percentages are based on the Survey conducted by Crawford and Broadley in 1936-37. The difference for fruit and vegetables, 18.5 per cent. in 1952 compared with 14 per cent. pre-war, is partly due to the highly seasonal character of this group, for the earlier survey was confined to the autumn and winter months. During the corresponding period

- from October 1952 to March 1953 the average expenditure on fruit and vegetables was 16.4 per cent. of the total.

19. Table 5 shows household expenditure on the main foods during the four quarters of 1952, the last quarter of 1951 being included for comparison.

## CHART 1

Percentage Expenditure on Different Foods


TABLE 5
Domestic Food Expenditure by all Households4th Quarter 1951 to 4th Quarter 1952

(a) Includes chipe and crisps.

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TABLE 5-condinued

|  | $\begin{gathered} 1951 \\ \text { 4th } \\ \text { Quarter } \end{gathered}$ | 1952 |  |  |  |  | Pencentagechange4thQuarter1952on 4 thQuarter1951 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1st Quarter | 2nd Quarter | $\begin{array}{\|c\|} \hline \text { 3rd } \\ \text { Quarter } \end{array}$ | 4th | Annual average |  |
| $\begin{array}{ll} \hline \text { Fruit }(b)- & \\ \text { Fresh } \ldots . & \ldots \\ \text { Other }(c) \ldots & \ldots \end{array}$ | 12.61 7.31 | $11 \cdot 90$ 4.10 | $18 \cdot 19$ 4.41 | 18.18 4.45 | 11.82 7.09 | 15.02 5.01 | $-\quad 6$ $-\quad 3$ |
| Total Frutt | 19.92 | 16.00 | $22 \cdot 60$ | $22 \cdot 63$ | 18.91 | 20.03 | - 5 |
| $\begin{array}{lll}\text { Cereals-- } & \\ \text { Bread }(\boldsymbol{d}) \ldots & \ldots \\ \text { Flour } & \ldots & \ldots \\ \text { Other } & \ldots & \ldots\end{array}$ | $14 \cdot 16$ $2 \cdot 47$ $26 \cdot 57$ | $15 \cdot 22$ 2.58 25.86 | $18 \cdot 31$ $3 \cdot 14$ $26 \cdot 11$ | 17.96 3.16 25.85 | $17 \cdot 58$ $3 \cdot 29$ 26.78 | $17 \cdot 26$ 3.04 26.14 | $\begin{aligned} & +\quad 24 \\ & +\quad 33 \\ & +\quad 1 \end{aligned}$ |
| Total Cereals... | $43 \cdot 20$ | $43 \cdot 66$ | $47 \cdot 56$ | $46 \cdot 97$ | $47 \cdot 65$ | $46 \cdot 44$ | $+10$ |
| BeveragesTea ... Coffee and cocoa drinks ... | $6 \cdot 00$ 3.20 | 6.04 3.63 | 6.44 2.93 | $8 \cdot 40$ 2.74 | $\begin{aligned} & 8 \cdot 28 \\ & 2.83 \end{aligned}$ | 7.29 3.03 | $\begin{array}{r} +\quad 38 \\ -\quad 12 \end{array}$ |
| Total Beverages | $9 \cdot 20$ | $9 \cdot 67$ | 9.37 | $11 \cdot 14$ | $11 \cdot 11$ | 10.32 | + 21 |
| Other Foods . | $7 \cdot 26$ | 7.09 | $7 \cdot 37$ | 7.08 | $7 \cdot 40$ | 7.24 | + 2 |
| Total All Foods | $\begin{array}{r} 225.54 \\ (18 \mathrm{~s} .10 \mathrm{~d}) \end{array}$ | $\begin{array}{r} 231 \cdot 82 \\ \text { (19s. 4d.) } \end{array}$ | $\left.\begin{array}{c} 251 \cdot 43 \\ (203.11 \mathrm{~d} . \end{array}\right)$ | $\begin{gathered} 247.95 \\ (20 \mathrm{~s} .8 \mathrm{~d} .) \end{gathered}$ | $\begin{gathered} 259.30 \\ (213.7 \mathrm{~d} .) \end{gathered}$ | $\begin{array}{r} 247 \cdot 59 \\ (20 \mathrm{~s} .8 \mathrm{~d} .) \end{array}$ | $+15$ |

(b) Includes tomatoes.
(c) Includes canned and bottied.
(d) Includes rolls, muffins and crumpets. Sandwiches and fruit bread are included in " other cereals".
20. Expenditure on most foods increased during 1952, mainly because of rising prices. Expenditure on cheese and bread increased by nearly a quarter, on rationed carcase meat by rather more, on eggs, flour and tea by about a third, while expenditure on bacon doubled, higher prices being accompanied by increased supplies. Expenditure on fish tended to fall, no doubt because of improved meat supplies; expenditure on butter declined because the ration was lower while the price remained controlled and subsidised; and the increased expenditure on tea during the second half of the year was partly at the expense of other beverages. The reason for the fall of 6 per cent. in expenditure on fresh fruit is not clear; prices in the last quarter were only slightly higher than a year before.
21. Table 6 shows for each quarter of 1952, and for the main food groups, the percentage increase or decrease in the average price paid by housewives compared with the corresponding quarter of 1951. The comparison has been made in this way so as to eliminate seasonal variations and to display the underlying trend of prices. The price index used is of the Fisher Ideal type (the geometric mean of a Laspeyres index and a Paasche index) and therefore reflects any change in the pattern of consumption within a food group: for example, a shift from butter to margarine.

TABLE 6
Price Changes: Quarters of 1952 compared with corresponding quarters of 1951
percentage change

|  |  |  | 1st <br> Quarter |  |  |  | 2nd <br> Quarter |
| :--- | :--- | :--- | :--- | :---: | :---: | :---: | :---: |
|  |  |  | 3rd <br> Quarter | (4th |  |  |  |
| Quarter |  |  |  |  |  |  |  |

(a) Excludes a few miscellaneous items for which expenditure only is recorded.
22. The most important change in the pattern of expenditure during the year was the increasing concentration of expenditure on the basic foods. This is best illustrated by comparing indices of expenditure, price and quantity for subsidised foods and all other foods. The quantity index is obtained by dividing the expenditure index by the price index; it therefore measures changes in the standard of purchases, as measured by consumer preference, rather than in their physical volume. The comparison is confined to the second half of the year.

TABLE 7
Changes in expenditure, price and quantity: third and fourth quarters of 1952 compared with corresponding quarters of 1951

| percentage change |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 3rd Quarter, 1951-52 |  |  | 4th Quarter, 1951-52 |  |  |
|  | Expendi- ture | Price | Quantity | Expendi- ture | Price | Quantity |
| Subsidised foods (a) Other foods (b) | +19 +3 | +17 +8 | +2 +5 | +26 +3 | +19 +6 | +6 +3 |
| All foods (b) ... | +11 | +13 | -2 | +14 | +13 | $+1$ |

(a) Liquid milk, rationed cheese, rationed carcase meat and bacon, shell eggs (hens'), rationed fats, sugar, tea, bread and flour, and potatoes.
(b) Excludes a few miscellaneous items for which expenditure only is recorded.
23. It will be seen from Table 7 that expenditure more than kept pace with the increase in prices for subsidised foods, but lagged behind prices for other foods. The diversion of expenditure to the basic foods was greater than could be explained by price changes alone; it represented a real change in the pattern of the diet. It had of course been envisaged when the original import programme for 1952 was reduced that the cuts would fall mainly on non-rationed
foods; the increase in the proportion of expenditure devoted to the main subsidised foods was therefore expected, and was attributed to the import restrictions and the reduction in food subsidies. By the end of the year, however, it had become evident that the shift had a more positive significance and might be expected to continue. Consumers were increasing their consumption of meat in spite of much higher prices, and purchases of eggs had also increased. An opinion survey carried out in the autumn showed that the demand for meat had not been fully met even during the peak period of home killings. On the other hand, the demand for fish and fruit had fallen off although their prices were only slightly higher than a year before. As a result, 53 per cent. of household food expenditure was devoted to the subsidised foods during the last quarter of 1952, compared with only 48 per cent. in the corresponding months of 1951, and this change appeared likely to persist.

CONSUMPTION
24. Table 8 summarises domestic consumption per head of the main foods during the four quarters of 1952; the fourth quarter of 1951 is included for comparison.
25. The findings confirm that in the course of the year meat (especially bacon) and eggs became more plentiful, while consumption of other animal protein foods tended to decline. Other changes were the decline in fruit consumption and the derationing of tea with its impact on other beverages. More detailed tables of consumption, expenditure and prices will be found for fruit and vegetables in Tables $9-12$ and for all foods in Appendix E. The main interest of Table. 8 is that it is the first attempt to display seasonal trends in consumption on the basis of a national sample covering every month of the year; it must, however, be remembered that in 1952 the pattern of free demand was still distorted to some extent by rationing and controls.

TABLE 8
Domestic Food Consumption by all Honseholds 4th Quarter, 1951 to 4th quarter, 1952
oz. per head per week except where otherwise stated


TABLE 8-continued

|  | $\begin{gathered} 1951 \\ \text { 4th } \\ \text { Quarter } \end{gathered}$ | 1952 |  |  |  |  | $\begin{aligned} & \text { Percentage } \\ & \text { change } \\ & \text { 4th } \\ & \text { Quarter } \\ & 1952 \\ & \text { on 4th } \\ & \text { Quarter } \\ & 1951 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{array}{\|c\|} \text { 1st } \\ \text { Quarter } \end{array}$ | $\underset{\text { Quarter }}{\text { 2nd }}$ | $\begin{gathered} \text { 3rd } \\ \text { Quarter } \end{gathered}$ | $\stackrel{4 \mathrm{~h}}{\text { Quarter }}$ | Annual average |  |
| Fism- |  |  |  |  |  |  |  |
| Fresh and processed | 6.40 | 6.39 | $5 \cdot 62$ | 5.34 | $6 \cdot 15$ | 5.87 | -4 |
| Prepared ... ... | 1.69 | 1.69 | 1.85 | $1 \cdot 62$ | 1.44 | 1.65 | -15 |
| Total Pish | 8.09 | 8.08 | $7 \cdot 47$ | 6.96 | $7 \cdot 59$ | 7.52 | -6 |
| Ecos, shell, hens' (No.) | 1.86 | $3 \cdot 10$ | $3 \cdot 84$ | $2 \cdot 47$ | $2 \cdot 37$ | 2.95 | +27 |
| Fats- |  |  |  |  |  |  |  |
| Butter ... | $3 \cdot 08$ | 3.09 | $3 \cdot 11$ | $2 \cdot 50$ | $2 \cdot 46$ | $2 \cdot 79$ | -20 |
| Margarine ... ... | $4 \cdot 12$ | 4.06 | 4-17 | $4 \cdot 60$ | $4 \cdot 74$ | $4 \cdot 39$ | +15 |
| Cooking fats, rationed | 2.01 | 2.00 | 2.03 | 1.96 | 2.02 | 2.01 | 0 |
| Other fats ... | 0.65 | 0.51 | $0 \cdot 50$ | 0.58 | 0.76 | 0.59 | +17 |
| Total Fats | 9.86 | $9 \cdot 66$ | 9.81 | 9.64 | 9.98 | 9.78 | +1 |
| Sugar and PreservesSugar Honey, preserves, syrup and treacle | $10 \cdot 33$ | 10-11 | 11.09 | 12.53 | 10-27 | 11.00 | - 1 |
|  | 5.76 | $6 \cdot 29$ | $6 \cdot 39$ | 5.59 | $5 \cdot 90$ | 6.05 |  |
| Total Sugar and Presserves | 16.09 | $16 \cdot 40$ | $17 \cdot 48$ | 18-12 | 16.17 | 17.05 | 0 |
| Vigertables- | 70.07 | 69.08 | 60.43 | 62.64 | 71.65 | 65.94 | + 2 |
| Fresh green | 15.10 | 12.77 | $15 \cdot 80$ | $22 \cdot 27$ | 14.69 | $16 \cdot 37$ | -3 |
| Other | 19.29 | 17.95 | $13 \cdot 26$ | $14 \cdot 56$ | 19.30 | 16.26 | 0 |
| Total Vecatabl bs OTHER THAN Potatoes ... | 34-39 | 30-72 | 29.06 | $36 \cdot 83$ | 33.99 | 32-63 | - 1 |
|  |  |  |  |  |  |  |  |
| Other (c) $\quad .$. | 5.82 | 3.75 | 3.79 | $2 \cdot 66$ | 5. 54 | 4-18 | -5 |
| Total Fruit | 26.05 | $20 \cdot 19$ | 24.80 | 32.79 | 23.77 | $25 \cdot 39$ | -9 |
| Cerbals- |  |  |  |  |  |  | 0 |
| Flour | 8.73 | 8.39 | $8 \cdot 38$ | $8 \cdot 36$ | 8.69 | 8.46 | 0 |
| Other | 19.56 | $18 \cdot 63$ | $17 \cdot 64$ | 17-24 | 18.09 | $17 \cdot 89$ | -8 |
| Total Cereals ... | 85.67 | 86.83 | 87-12 | $85 \cdot 30$ | 84-42 | 85.91 | -2 |
| BeviragesTea ... Coffee and cocoa drinks | 2.02 | 2.02 | 2.06 | $2 \cdot 40$ | $2 \cdot 37$ | $2 \cdot 21$ | +17 |
|  | 0.91 | 1.01 | 0.80 | 0.72 | 0.76 | 0.83 | -16 |
| Total Beveraces | 2.93 | 3.03 | 2.86 | $3 \cdot 12$ | $3 \cdot 13$ | 3.04 | + 7 |

(a) Includes chips and crieps.
(b) Includes tomatoes.
(c) Includes canned and bottled.
(d) Includes rolls, muffins and crumpets. Sandwiches and fruit bread are included in "other cereals".

## Milk, Cheese, Eggs, Meat and Fish

26. Domestic milk consumption (including school milk) remained steady around 5.1 pints per head per week, of which 4.8 pints were liquid milk. During the first half of the year consumption of liquid milk was about 1 per cent below the corresponding figures for 1951. Consumption in the third quarter, which exhibited the normal seasonal fall, was practically the same as a year earlier, and it was thought that the two intervening price increases had been successfully absorbed; but the expected seasonal increase between the third and fourth quarters did not take place, and consumption of liquid milk during the last quarter was 3 per cent lower than a year before, a decline confirmed by Milk Marketing Board returns. It therefore appeared that the expansion of liquid milk sales which had continued until 1951 had come to a halt.
27. Cheese, eggs, meat and fish are to some extent complementary as they are all " main dish" foods which provide animal protein; they may therefore be considered together. Total consumption of cheese declined steadily during the year from nearly 2.5 oz . a week in the first quarter to 1.9 oz . in the fourth. Of this, unrationed cheese accounted for just over half an ounce. Egg consumption, following the seasonal supply, rose from 1.9 eggs per person per week in the last quarter of 1951 to $3 \cdot 8$ in the second quarter of 1952 , declining to 2.4 in the last quarter.
28. Consumption of rationed carcase meat rose from about 10 oz per week in the first half of the year to over 13 oz . in the second half, as supplies became more freely available. Beef and veal reached a maximum in the third quarter, mutton and lamb in the fourth, pork in the second. Unrationed meat and meat products also showed seasonal changes rather than a long-term trend; consumption was lowest in the second and third quarters of the year, when there was a summer reduction in the consumption of rabbits, sausages and meat products.
29. Cooked gammon was available off the ration at 8s. Od. per lb. from 5th October. Total consumption of rationed bacon and cooked gammon increased from 4.8 oz . per head per week in the third quarter to 5.4 oz . in the fourth, but this was partly offset by a decrease of 0.2 oz . for canned ham which had previously been selling at about 11 s . Od. per 1b. The price increases and the derationing of cooked gammon had little effect on the take-up of the bacon ration.
30. Consumption of fish showed a seasonal decline from 8.1 oz at the beginning of the year to under $7 \cdot 0 \mathrm{oz}$. in the third quarter, recovering to 7.6 oz . at the end. This was, however, still half an ounce lower than in the last quarter of the previous year, which suggests a downward tendency. The fall was chiefly in white fish of the cheaper types, such as cod. Prices remained fairly steady for this type of fish, so that the reason for the fall was probably the increased availability of meat. Fat fish (mainly herrings) showed a seasonal fall in the spring and summer, but consumption at the end of the year was slightly higher than at the beginning. It might indeed have been expected that the improved meat supplies would have had more effect on fish consumption, but the impact was lessened by the reduction in supplies of cheese and the seasonal decline in eggs.

## Fats, Cereals, Sugar, Preserves and Beverages

31. The main change in the consumption of fats was a decrease from $3 \cdot 1 \mathrm{oz}$. to 2.5 oz . in butter consumption in the second half of the year, due to lower imports. This was offset by a rise for margarine and unrationed fats, and total fat consumption remained steady for the first three quarters, with a slight rise to $\mathbf{1 0} \mathbf{o z}$. in the last quarter.
32. Consumption of bread, biscuits and cakes was lower in the second half of the year than in the first half; this may have been because more meat was available, making possible more cooked meals and fewer of the bread and cake type. Oatmeal and oat products showed the usual seasonal rise in the winter and fall in the summer, offset by a reverse trend for other breakfast cereals.
33. Consumption of sugar rose, as might be expected, during the soft fruit season, with a corresponding decline in the purchases of preserves. In the last quarter, sugar consumption fell but purchases of preserves remained low.
34. One of the significant changes over the year was in consumption of tea. The ration was increased from 2 to 2.5 oz . in July and from 2.5 to 3 oz . in September, with $3 \cdot 5 \mathrm{oz}$. for those over 70, and rationing and price control ended altogether on the 5th October. The increase in the ration led to a rise in consumption from 2.0 to 2.4 oz . in the third quarter, but no further increase took place in the national average when tea was freed from rationing. Meanwhile the average price paid increased from 4 s .2 d . in the second quarter to 4 s .9 d . in the third quarter. Associated with the rise in tea consumption was a deciine in coffee extracts. Demand for ground coffee was not affected despite a rise in price. Consumption of cocoa drinks was also maintained except for a seasonal fall in the summer.
TABLE 9
Fruit: Consumption and Average Prices by all Households-4th Quarter, 1951, to 4th Quarter, 1952

|  |  |  |  | Consumption (oz. per head per week) |  |  |  |  |  | Average prices (pence per lb.) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 1951 | 1952 |  |  |  |  | 1951 | 1952 |  |  |  |  |
|  |  |  |  | $\begin{gathered} \text { 4th } \\ \text { Quarter } \end{gathered}$ | $\begin{gathered} \text { 1st } \\ \text { Quarter } \end{gathered}$ | 2nd | $\begin{array}{\|c\|} \text { 3rd } \\ \text { Quarter } \end{array}$ | 44h | Annual average | 4th | $\begin{gathered} \text { 1st } \\ \text { Quarter } \end{gathered}$ | $\xrightarrow[\text { 2nd }]{\text { Quarter }}$ | $\left\lvert\, \begin{gathered} \text { 3rd } \\ \text { Quarter } \end{gathered}\right.$ | $\begin{gathered} 4 \mathrm{th} \\ \text { Quarter } \end{gathered}$ | Annual average |
| TomatorsFresh (a) Canned and bottled | $\ldots$ | .. | $\ldots$ | 4.22 1.00 | 2.56 1.14 | 5.21 0.83 | 8.32 0.51 | 3.33 0.82 | 4.86 0.82 | $15 \cdot 84$ 18.11 | 17.61 18.01 | 24.00 18.06 | $16 \cdot 48$ 18.28 | $14 \cdot 91$ 17.26 | 18.64 17.94 |
| Total | ... | ... | $\cdots$ | $5 \cdot 22$ | $3 \cdot 70$ | 6.04 | 8.83 | $4 \cdot 15$ | $5 \cdot 68$ |  |  |  |  |  |  |
| © Fresh Frump- |  |  |  | 2.58 | $4 \cdot 15$ | $3 \cdot 30$ | 1.56 | $2 \cdot 22$ | $2 \cdot 81$ | $10 \cdot 58$ | 9.50 | $10 \cdot 84$ | 12.77 | 11.31 | 10.66 |
| Other citrus fruit | $\ldots$ | $\ldots$ | $\ldots$ | 2.62 | 0.87 | 0.64 | 0.46 | 0.42 | 0.60 | 12.53 | 12.07 | 11.68 | 14.28 | $14 \cdot 72$ | 12.73 |
| Apples and pears | ... | ... | $\ldots$ | $10 \cdot 42$ | 7.17 | 5.71 | 8.95 | 9.70 | 7.88 | 7.98 | 10.72 | 12.87 | 9.78 | 8.63 | 10.39 |
| Stone fruit ... | ... |  | $\ldots$ | 0.46 | 0.08 | 0.55 | $5 \cdot 25$ | $0 \cdot 21$ | 1.52 | 8.87 | $20 \cdot 54$ | $15 \cdot 25$ | 6.88 | $6 \cdot 25$ | 7.93 |
| Soft fruit (a) ... | ... | ... | ... | 0.51 | 0.08 | 1.91 | $2 \cdot 54$ | 0.13 | $1 \cdot 17$ | $20 \cdot 14$ | 31.86 | 18.69 | 18.56 | $30 \cdot 42$ | 19.42 |
| Bananas... ... | ... |  | $\ldots$ | 1.36 | 1.08 | 1.03 | 1.46 | 2.20 | 1.44 | 12.79 | 12.83 | 12.90 | 12.69 | 12.86 | $12 \cdot 81$ |
| Other fresh fruit | ... | ... | ... | 0.06 | 0.45 | $2 \cdot 66$ | 0.59 | 0.02 | 0.93 | 14.27 | 13.33 | 5.95 | 10.55 | 14.40 | 8.04 |
| Total ... |  | $\cdots$ | $\ldots$ | 16.01 | 13.88 | 15.80 | 20.81 | 14.90 | $16 \cdot 35$ |  |  |  |  |  |  |
| Canned and bottled fruid |  | ... | ... | 2.17 | 1.63 | 1.48 | 1.85 | $2 \cdot 22$ | 1.80 | 21.94 | 21.51 | 22.46 | 21.73 | 21.68 | 21.85 |
| Fruit juices ... | . | ... | $\ldots$ | 0.27 | $0 \cdot 23$ | $0 \cdot 20$ | 0.25 | 0.21 | $0 \cdot 22$ | 17.67 | 19.70 | 20.87 | 18.79 | 22.83 | 20.36 |
| Dried fruit ... |  | $\ldots$ | ... | 1.09 | $0 \cdot 30$ | 0.96 | 0.75 | 1.27 | 0.82 | 16.09 | $18 \cdot 52$ | 15.26 | $15 \cdot 49$ | 15.75 | 15.80 |
| Nuts and fruit and nut | produc |  | $\ldots$ | 1.29 | 0.45 | 0.32 | 0.30 | 1.02 | 0.52 | 29.71 | 28.01 | 29.41 | 29.40 | 31.51 | 29.90 |
| Total | ... | ... | ... | 4.82 | $2 \cdot 61$ | 2.96 | $3 \cdot 15$ | $4 \cdot 72$ | $3 \cdot 36$ |  |  |  |  |  |  |
| Total All Fruits | ... | ... | ... | 26.05 | $20 \cdot 19$ | 24.80 | 32.79 | $23 \cdot 77$ | 25.39 |  |  |  |  |  |  |

## Pruit：seasomal changes

35．The consumption of fruit，of which details are given in Table 9，exhibited the expected seasonal pattern．Consumption of fresh tomatoes was lowest in January and December and highest in July；the price，on the other hand， was highest in May and lowest in November．Home－grown（＂free＇）tomatoes made an important contribution in August and September，when purchases were declining．Seasonal changes in consumption of canned and bottled tomatoes were complementary to those for fresh tomatoes，with a maximum in February and a minimum in September．

36．The price of oranges rose steadily from 9d．per lb．in January to over 1s．1d．in August，but dropped to $10 \frac{1}{2}$ d．by the end of the year．Consumption was highest（ $4 \cdot 6 \mathrm{oz}$ ．per head per week）in February and March，declined steeply to 1.4 oz ．in October but recovered to 3.4 oz ．before Christmas．Other citrus fruit exhibited a broadly similar trend，with the price highest and consumption lowest in October．

37．The seasonal pattern for apples and pears was so marked and charac－ teristic that it is of interest to note the monthly figures．It will be seen from Table 10 that consumption was lowest and the price highest in June and July， before the new season＇s crop．Home－grown fruit appeared in the record when it was withdrawn from store for consumption，and therefore made some contribution in every month of the year．

TABLE 10
Apples and pears：consumption and prices－All households， 1952

|  | 䂞 |  | 䢔 | 兌 | 完 | 恚 | 者 | 薄 | 宕 |  | 5 最 0 0 $\mathbf{Z}$ | 名 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Quantity pur－ chased（oz．per head per week） |  |  |  |  |  |  |  |  |  |  |  |  |
|  | $5 \cdot 9$ | $7 \cdot 0$ | $7 \cdot 2$ | $6 \cdot 6$ | $5 \cdot 7$ | $4 \cdot 6$ | $4 \cdot 5$ | 7．1 | $9 \cdot 0$ | $9 \cdot 2$ | 9.0 | 8－0 |
| Quantity＂free＂ |  |  |  |  |  |  |  |  |  |  |  |  |
| （oz per head per week） | 0.5 | 0.5 | 0.4 | 0.2 | $0 \cdot 1$ | $\cdots$ | 0.3 | $1 \cdot 3$ | 4.6 | 2.0 | 0.7 | $0 \cdot 3$ |
| Price（pence per |  |  |  |  |  |  |  |  |  |  |  |  |
| lb．）．．．．．． | 10－1 | 10.9 | 11.1 | $11 \cdot 7$ | $13 \cdot 3$ | $13 \cdot 8$ | $13 \cdot 3$ | 9.9 | $7 \cdot 8$ | 8－1 | $8 \cdot 8$ | $9 \cdot 6$ |

38．The stone fruit season，June to October，showed a sharp seasonal peak in August for both purchased and home－grown fruit．At the start of the season prices were high：1s． $0 \frac{1}{2} \mathrm{~d}$ ．per lb．in July，falling to $5 \frac{3}{4} \mathrm{~d}$ ．in August－October．

39．During the soft fruit season，extending from June to September with a peak in June for retail purchases and July for garden produce，the average price remained at about 1 s .6 d ．per lb ．throughout．The average price of bananas remained almost constant between 1 s ． $0 \frac{1}{2} \mathrm{~d}$ ．and 1 s ． 1 d ．per lb ．Con－ sumption fell from 1.2 oz ．per head per week in January and February to 0.8 oz ． in April and then increased steadily to 2.7 oz ．in December．The experience of 1950 ，when the food classification was more detailed，suggests that＂other fresh fruit＂was mostly rhubarb，though the group also included pineapples，figs， melons and pumpkins．The seasonal peak was in May，and from that month until October home－grown produce exceeded purchases．Consumption of canned and bottled fruit rose to a maximum in August and again just before

Christmas; the average price fluctuated during the year between 1s. 8d. and 2s. 3d. per lb. Home-bottled fruit was of some importance during the first quarter, at over half an ounce per head per week.
40. The Christmas trade was reflected in a high consumption in the fourth quarter of dried fruit, nuts and fruit and nut products. The consumption of fruit juices, which include syrups and purees, did not show any marked seasonal change furing the year. Rather more than half the quantity consisted of Ministry of Food orange juice.

## Vegetables: seasonal changes

41. Table 11 gives details of consumption and prices of the main types of vegetables for the four quarters of 1952 and the last quarter of 1951.
Vegetables: Consumption and Average Prices by all Households 4th Quarter, 1951, to 4th Quarter, 1952

(a) Includes a small quantity of quick-frozen.
42. The seasonal variation in the consumption of potatoes, and the extent to which the old and new crops overlap, is best illustrated by the monthly estimates.

TABLE 12
Potatoes: consumption and prices. All Howseholds, 1952

|  |  |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

43. It will be seen that the price of old potatoes increased from $2 \cdot 0 \mathrm{~d}$. per Ib . in January to $2 \cdot 3 \mathrm{~d}$. by mid-year, when total consumption was at its lowest and old potatoes were being replaced by new. In August the average price of new potatoes had fallen to $2 \cdot 1 \mathrm{~d}$. per lb. compared with a maximum of 9.8 . in March; after 1st September potatoes of the 1952 crop were regarded as " old ". Home-grown potatoes withdrawn from store contributed to the diet throughout the year, the proportion of total consumption varying from 4 per cent. in April to 20 per cent. in September.
44. The seasonal variations for cabbage and cauliflower were less pronounced than for most vegetables. Consumption, including self-supplies, was above average between April and June, and again between September and November. The average price of cabbage was highest in April ( 5.7 d . per lb.) and lowest in August ( $4 \cdot 0 \mathrm{~d}$. per lb .). The consumption of Brussels sprouts was at its maximum (about 6 oz . per head per week) in January and November-December, the average price varying between $11 \cdot 3 \mathrm{~d}$. per lb . at the beginning of the season and $7 \cdot 6 \mathrm{~d}$. in November. There was a well-marked peak for leafy salads in July-August, when consumption rose to 3.4 oz . per head per week and the average price fell to 1 s . $1 \frac{1}{4}$ d. per 1 lb . During the season for fresh peas and beans (June to October) prices remained around 9d. per lb. ; for the remainder of the year there was a steady market for small quantities of the quick-frozen products at about 2 s . 8 d . per lb . Other fresh green vegetables, including spinach, sprouting broccoli and kale, are of small commercial importance, and most of the quantities came from gardens and allotments.
45. The consumption of carrots, which were freely available throughout the year, was highest in the winter months. The average price rose from 4.6d. per lb. in January to 1 s . Od. in June, while consumption fell from 3.6 oz . to 0.9 oz. per head per week. From June onwards home-grown carrots made a substantial contribution. The price fell to $7 \cdot 6 \mathrm{~d}$. per lb . in July and then declined more slowly to 4.7 d . at the end of the year, while consumption rose to 4.1 oz . by October and then levelled off. The seasonal variation for other root vegetables was similar: the average price rose from 3•8d. Der lb . in January to $9 \cdot 2 \mathrm{~d}$. in June, while consumption decreased from over 4 oz . per head per week to about half an ounce; prices then declined gradually to 3.7d. per lb. in December, while consumption rose again to over 4 oz . in the last three months of the year.
46. The average price of onions, with which are grouped shallots and leeks, rose from $7 \cdot 1 \mathrm{~d}$. per lb . in January to $8 \cdot 7 \mathrm{~d}$. in June and declined to 6.5 d . in December; the corresponding variations in consumption were somewhat wider (from $4 \cdot 2 \mathrm{oz}$. per head per week down to 2.6 oz . in June and back to $4 \cdot 4 \mathrm{oz}$.). Canned pulses accounted for 97 per cent. of the canned vegetables group by weight. Prices showed little variation, and consumption was maintained between 4.4 oz . and 4.9 oz . except for a fall to $3 \cdot 3 \mathrm{oz}$. during the third quarter. Dried pulses have been grouped with vegetable products in Table 11, but accounted for 87 per cent. of the total quantity in 1952. Demand was highest in the first four months of the year and fell sharply when fresh peas and beans became available; the price, however, remained steady.

## ENERGY VALUE AND NUTRIENT CONTENT

47. The energy value and nutrient content of the household diet in 1952 has been calculated by the method described in previous reports ${ }^{1}$. The figures shown in Table 13 represent the nutritive value of the edible portion of food purchased or obtained free for consumption at home or in packed meals carried away from home. As in previous reports other food eaten outside the home is not included, nor are sweets or soft or alcoholic drinks. No allowance has been made, in calculating the nutritive value of the diet, for kitchen or plate wastage, but the figures have been adjusted to take account of cooking losses of vitamin $B_{1}$ and $C$, according to the recommendations of the Medical Research Council ${ }^{2}$. Welfare cod liver oil and vitamin A and $\mathbf{D}$ tablets have been excluded from the totals.
48. Table 13 shows the quarterly averages for all households during 1952 and suggests that the composition of the average diet was stable for the nutrients not affected by seasonal changes in consumption. The main trend of nutritional importance was the increased consumption of meat and bacon towards the end of the year, which influenced the average figures for animal protein, fat and nicotinic acid. The reduction in iron between the third and fourth quarters was caused mainly by a seasonal fall in the consumption of fresh peas and beans which counterbalanced the effects of the increased meat consumption.

TABLE 13
Energy Value and Nutrient Content of Domestic Food Consumption All Honseholds, 1952

| per head per day |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1951 | 1952 |  |  |  |  |
|  | $\stackrel{\text { 4th }}{\text { Quarter }}$ | $\begin{gathered} \text { 1st } \\ \text { Quarter } \end{gathered}$ | 2nd Quarter | 3rd Quarter | 4th Quarter | Annual average |
| Energy value ... Cal. | 2,454 | 2,430 | 2,443 | 2,446 | 2,469 | 2,447 |
| Total protein ... g. | 78 | 78 | 2, 77 | 2,76 | 78 | 77 |
| Animal protein g. | 38 | 38 | 37 | 37 | 39 | 38 |
| Fat .... ... g. | 94 | 92 | 94 | 92 | 97 | 94 |
| Carbohydrate... g. | 323 | 322 | 323 | 328 | 321 | 324 |
| Calcium ... mg. | 1,059 | 1,054 | 1,064 | 1,027 | 1,028 | 1,043 |
| Iron ... ... mg. | $13 \cdot 1$ | $12 \cdot 8$ | 13.0 | $13 \cdot 2$ | $13 \cdot 0$ | 13.0 |
| Vitamin A ... i.u. | 3,518 | 3,476 | 3,681 | 3,552 | 3,496 | 3,551 |
| Vitamin $\mathrm{B}_{1} \quad . . . \mathrm{mg}$. | 1.24 | 1.26 | $1 \cdot 27$ | 1.30 | $1 \cdot 28$ | $1 \cdot 28$ |
| Riboflavin ... mg. | 1.63 | 1.65 | 1.66 | 1.63 | $1 \cdot 64$ | $1 \cdot 64$ |
| Nicotinic acid... mg. | 13.4 | 12.9 | $12 \cdot 4$ | 13.0 | $13 \cdot 5$ | $12 \cdot 9$ |
| Vitamin C ... mg. | 52 | 41 | 50 | 71 | 50 | 53 |
| Vitamin D ... i.u. | 148 | 147 | 151 | 147 | 148 | 148 |

${ }^{1}$ See Domestic Food Consumption and Expenditure, 1951, H.M.S.O., 1953, Appendix A.
${ }^{2}$ Medical Research Council War Memorandum No. 14.
49. Table 14 gives figures illustrating the adequacy of the average household diet at the four seasons by comparison with standards based on the scale of dietary requirements of the British Medical Association ${ }^{1}$. In this comparison adjustments have been made for meals taken outside the home and a further adjustment of 10 per cent. has been applied to make allowance for plate and other wastage or spoilage of edible food and also food bought for human consumption and given to domestic pets. Only in tables relating to the adequacy of the diet has this 10 per cent. been deducted. These calculations suggest that the average diet was of adequate nutritional value throughout the year.

TABLE 14
Comparison of the Energy Value and Nutrient Content of Domestic Food Consumption with Standards based on the British Medical Association's Recommendations

All Households, 1952

|  |  | 19514thQuarter | 1952 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{gathered} \text { 1st } \\ \text { Quarter } \end{gathered}$ | $\stackrel{\text { 2nd }}{\text { Quarter }}$ | 3rd Quarter | 4th Quarter | Annual average |
| Energy value |  |  | per cent. 100 | per cent. 98 | per cent. 98 | $\begin{aligned} & \text { per cent. } \\ & 98 \end{aligned}$ | per cent. 101 | $\begin{aligned} & \text { per cent } \\ & 99 \end{aligned}$ |
| Total protein | $\ldots$ | 106 | 105 | 103 | 103 | 107 | 104 |
| Calcium | $\ldots$ | 111 | 110 | 111 | 105 | 107 | 108 |
| Iron |  | 107 | 104 | 106 | 107 | 106 | 106 |
| Vitamin A | $\ldots$ | 149 | 146 | 154 | 148 | 147 | 148 |
| Vitamin $\mathbf{B}_{1}$ | $\ldots$ | 127 | 128 | 129 | 132 | 131 | 131 |
| Riboflavin |  | 109 | 110 | 110 | 107 | 110 | 109 |
| Nicotinic acid |  | 138 | 131 | 125 | 131 | 139 | 131 |
| Vitamin C |  | 241 | 189 | 230 | 324 | 232 | 244 |

50. The balance of the diet may be assessed by evaluating the proportions of calories derived from protein, fat and carbohydrate respectively. Table 15 shows that these proportions varied very little during the year.

TABLE 15
Percentage of Calories derived from Protein, Fat and Carbohydrate All Households, 1952

| Percentage of energy value derived from | $\begin{gathered} 1951 \\ \text { 4th } \\ \text { Quarter } \end{gathered}$ | 1952 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\begin{gathered} \text { lst } \\ \text { Quarter } \end{gathered}$ | $\begin{gathered} \text { 2nd } \\ \text { Quarter } \end{gathered}$ | 3rd Quarter | $\stackrel{\text { 4th }}{\text { Quarter }}$ | Annual average |
| Protein | $12 \cdot 7$ | $12 \cdot 8$ | 12.6 | 12.5 | $12 \cdot 7$ | 12.6 |
| Fat | $34 \cdot 6$ | $34 \cdot 2$ | $34 \cdot 5$ | $33 \cdot 9$ | $35 \cdot 3$ | 34.5 |
| Carbohydrate | 52.7 | 53.0 | 52.9 | $53 \cdot 6$ | $52 \cdot 0$ | 52.9 |

${ }^{1}$ British Medical Association: Report of Committee on Nutrition, 1950. There is still controversy over the requirement of Vitamin C, and the recommended allowances of the National Research Council of the U.S.A. are much higher; this would result in markedly lower percentage figures for Vitamin C in Table 14, as well as in Tables 22 and 33.

# IV. HOUSEHOLD DIETS OF SOCIAL CLASSES 

## EXPENDITURE AND CONSUMPTION

51. The classification into social classes was made as in previous years, according to the income of the head of the household, and the same income criteria were employed. Table 16 shows the number of households in each class. Because of the general upward trend in money income the results from this classification were not entirely comparable with those for previous years since a somewhat larger proportion of the sample was found in the middle and upper income grades and a smaller proportion in the lower. A detailed account of the social class changes is given in Appendix A. In view of the rise in incomes the scales by which social class is assessed have been revised in the 1953 Survey. The upward movement also affected the age composition of the social classes in that families with children become rather more numerous in Classes A and B.
52. It is possible to make a straightforward comparison between Classes A, $B$ and $C$ as they were similar in household composition. In each of these classes, at least two-thirds of the households comprised one man, one woman and varying numbers of children and adolescents, and the distribution of families of different size was similar.
53. The group classed together as Class D was more heterogeneous, even when Old Age Pensioner households were treated separately. The remainder of Class D included several groups with different characteristics. On the one hand there were, as in Classes A, B and C, families with one man, one woman and children, but they were few in number; on the other hand there were a large number of households of one man and one woman only, mostly elderly; these can be divided into earners and non-earners, the latter being mainly retired people. Over two-thirds of Class D households contained some combination of adults other than ofe man and one woman, and these again fall into several groups; a considerable number of households consisted of one elderly woman living alone, while others contained three or more adults, with or without children or adolescents. In Class D the income of the head of the household was less useful as a measure of economic status, since there were many households dependent on two or more incomes, either from pensions or from earnings. Also, since Class D households were on average smaller than others, average income per head tended to be higher than in Class C. Another source of variation was the inclusion in Class D of households where the head was an elderly person with a small income, living with other members of the family whose income might be quite high. It is, therefore, misleading to regard Class D en bloc as the lowest economic stratum of the population; it contained some poor households and others which were relatively well off. The grouping together of these different types of household resulted in an average food consumption and expenditure superficially similar to that of Class C, but this similarity was more apparent than real. The reassessment of income grades for the 1953 survey will include a further subdivision of Class D to provide more homogeneous groups.
54. In 1952 information was collected concerning total net family income from all sources (after payment of income tax). The response to this inquiry varied from class to class; the proportions of each class for which information was available were:-

|  |  |  |  |  | Per cent. |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
| Class A | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ |
| 71 |  |  |  |  |  |  |
| Class B | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ |
| Class C | $\ldots$ | $\ldots 8$ |  |  |  |  |
| Class D (excluding | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | 90 |
| O.A.P. | households) | $\ldots$ | $\ldots$ | 82 |  |  |

55. Income for the households not stating family income had to be estimated: for this purpose the sample was divided into groups homogeneous with respect to social class, family composition and number of earners, and it was assumed that the households in such a group not stating family income spent, on the average, the same proportion of family income on food as the households stating family income, with a correction for the proportion of meals eaten outside the home.
56. It was found, however, that the estimated total family incomes of the sample were substantially below estimates of total personal incomes from other sources, and a further check was made. The average incomes of heads of households in a number of occupations were compared with the average earnings in those occupations as given by the Ministry of Labour, and in every case the Survey figures were found to be too low. Since the Survey figures were based on the answers given by the housewife, it may be concluded that in general the housewife understated her husband's income, presumably because she did not know it. The understatement appeared to be of the order of 15 per cent. in those occupations for which a check was made. Nothing is known about understatement in other occupations, but such understatement may well be greater at the higher income levels and less at the lower levels, especially among Old Age Pensioner households.
57. The proportion of estimated net family income spent on food was calculated from the available data, without correction for understatement, and the results are shown in Table 16. The average for all housebolds was 35 per cent.; if corrected by a factor of 15 per cent. this would become 30 per cent., in better agreement with other estimates of the average proportion of personal expenditure devoted to food.
58. The percentages given in Table 16 are of interest for comparison between classes. The greatest difference was between Class A at one extreme, the Old Age Pensioner households at the other, and a middle block containing Class B, Class C and the rest of Class D. Although housewives' statements of income were no doubt in many instances too low, especially in the higher income groups, there is no reason to believe that the broad relationship between classes is seriously in error. As a matter of interest, Crawford and Broadley (The People's Food, 1938, p. 129) found a similar relationship before the war, viz. Classes AA and A 16 per cent., Class B 29 per cent., Class C 39 per cent., Class D 47 per cent., All households 32 per cent.

TABLE 16
Food Expenditure and Social Class Distribution of Households

\begin{tabular}{|c|c|c|c|c|c|c|}
\hline \multirow[t]{3}{*}{} \& \multicolumn{5}{|c|}{Social Class} \& \multirow{3}{*}{\[
\underset{\text { classes }}{\text { All }}
\]} \\
\hline \& \multirow[t]{2}{*}{A} \& \multirow[t]{2}{*}{B} \& \multirow[t]{2}{*}{C} \& \multicolumn{2}{|c|}{D} \& \\
\hline \& \& \& \& \[
\begin{array}{|c|}
\hline \text { Excluding } \\
\text { O.A.P. }
\end{array}
\] \& O.A.P. \& \\
\hline Number of households \& 1,046 \& 3,344 \& 4,970 \& 2,173 \& 905 \& 12,438 \\
\hline Average size of \& \(3 \cdot 47\) \& 3.66 \& \(3 \cdot 64\) \& 2.75 \& 1.53 \& 3-32 \\
\hline \begin{tabular}{l}
Food expenditure per week: \\
per person per household ..
\end{tabular} \& \begin{tabular}{l}
23s. 11d. \\
82s. 11d.
\end{tabular} \& \[
\begin{array}{ll}
\text { 21s. } \& \text { 3d. } \\
\text { 77s. } \& 8 \mathrm{~d} .
\end{array}
\] \& \[
\begin{array}{ll}
\text { 20s. } \& \text { Od. } \\
\text { 72s. } \& 8 \mathrm{~d} .
\end{array}
\] \& 20s. Od.
54s. 11 d. \& \[
\begin{array}{ll}
\text { 18s. } \& \text { 5d. } \\
\text { 28s. } \& \text { 2d. }
\end{array}
\] \& 203. 8 d 68s. 6 d \\
\hline \begin{tabular}{c} 
Household \\
\begin{tabular}{c} 
expenditure \\
percent \\
percitage \\
estimated \\
family \\
of \\
of \\
net
\end{tabular} \\
\hline
\end{tabular} \& 23 \& 34 \& 39 \& 38.

38 \& 5s \& 35 <br>
\hline \multicolumn{7}{|c|}{26} <br>
\hline Google \& \& \& \& \& Original fi RNELL UNI \& VERSITY <br>
\hline
\end{tabular}

59. Expenditure and value of consumption by social class are shown for each quarter in Table 17. All classes increased their expenditure during the year; a rise in the Spring is usual, but in 1952 this was followed by a further rise in the last quarter. The year's rise in average food expenditure from the fourth quarter of 1951 to the corresponding quarter of 1952 was 15 per cent., but there were considerable class differences. The greatest increases were for Class C ( 16.4 per cent.) and Class D other than O.A.P. households ( 17.6 per cent.); Class A, with greater supplies of free food, increased their expenditure least, by only 8.5 per cent. It is worthy of note that Classes A and B and the Old Age Pensioners increased their expenditure by less than the average rise in prices over the same period ( 13 per cent.), whereas Class C and the remainder of Class D increased their expenditure by appreciably more. Class differences, therefore, became less during the year, apart from Old Age Pensioner households.

TABLE 17
Food Expenditure and Vahue of Consumption by Social Class, 1952

\begin{tabular}{|c|c|c|c|c|c|c|}
\hline \multicolumn{7}{|r|}{per head per week} \\
\hline \& \multicolumn{5}{|c|}{Social Class} \& \multirow{3}{*}{All houso holds} \\
\hline \& \multirow{2}{*}{A} \& \multirow{2}{*}{B} \& \multirow{2}{*}{C} \& \multicolumn{2}{|l|}{D} \& \\
\hline \& \& \& \& \[
\begin{aligned}
\& \text { Excluding } \\
\& \text { O.A.P. }
\end{aligned}
\] \& O.A.P. \& \\
\hline \begin{tabular}{l}
Ist Quarter \\
Expenditure \\
Value of "free "food ...
\end{tabular} \& \[
\begin{array}{lr}
\text { s. } \& \text { d. } \\
21 \& 10 \\
2 \& 0
\end{array}
\] \& \begin{tabular}{l}
s. d. \\
\(20 \quad 1\)
\end{tabular} \& \[
\begin{array}{lc}
\text { s. } \& \text { d. } \\
1810 \\
\hline
\end{array}
\] \& \begin{tabular}{l}
s. d. \\
\(\begin{array}{ll}18 \& 8 \\ \& 5\end{array}\)
\end{tabular} \& \begin{tabular}{l}
s. d. \\
\(17 \quad 2\)
\end{tabular} \& \[
\begin{array}{ll}
\text { s. } \& \text { d. } \\
19 \& 4
\end{array}
\] \\
\hline Value of consumption ... \& 2310 \& 206 \& 19 5 \& 191 \& \(17 \quad 7\) \& 1911 \\
\hline \begin{tabular}{l}
2nd Quartbr \\
Expenditure \\
Value of "free " \({ }^{\text {food } . . .}\)
\end{tabular} \& 2410
21 \& \(\begin{array}{r}2110 \\ \\ \hline\end{array}\) \& \begin{tabular}{|r|}
20 \\
\hline
\end{tabular} \& \begin{tabular}{|r|}
19 \\
\hline
\end{tabular} \& \(\begin{array}{r}18 \quad 9 \\ \\ \hline\end{array}\) \& 2011
10 \\
\hline Value of consumption ... \& 2611 \& 227 \& 211 \& 201 \& 194 \& 219 \\
\hline 3rd Quarter Expenditure Value of "free " food ... \& \(\begin{array}{rr}24 \& 2 \\ 3 \& 1\end{array}\) \& \(\begin{array}{rr}21 \& 3 \\ 1 \& 1\end{array}\) \& \(\begin{array}{rr}19 \& 8 \\ 1 \& 4\end{array}\) \& \(\begin{array}{rr}20 \& 7 \\ 1 \& 2\end{array}\) \& \(\begin{array}{ll}18 \quad 6 \\ \& 9\end{array}\) \& \(\begin{array}{rr}20 \& 8 \\ 1 \& 4\end{array}\) \\
\hline Value of consumption ... \& 27 \& 224 \& 210 \& 219 \& 193 \& 220 \\
\hline \begin{tabular}{l}
4th Quartir \\
Expenditure \\
Value of "free " food ...
\end{tabular} \& \(\begin{array}{r}24 \\ 8 \\ \\ \hline 11\end{array}\) \& \(\begin{array}{r}21 \\ \hline\end{array}\) \& \(\begin{array}{ll}21 \& 0 \\ \& 6\end{array}\) \& \begin{tabular}{l}
\(21 \quad 2\) \\
\\
\hline
\end{tabular} \& \begin{tabular}{|r|}
19 \\
\hline
\end{tabular} \& \(\begin{array}{r}21 \\ \\ \\ \\ \hline\end{array}\) \\
\hline Value of consumption ... \& \(25 \quad 7\) \& 221 \& 216 \& 218 \& 198 \& 221 \\
\hline AnNual avirage Expenditure Value of "free" food … \& 2311
230 \& \begin{tabular}{|c}
\(21 \quad 3\) \\
\\
\hline 8
\end{tabular} \& \(\begin{array}{r}20 \\ \\ \\ \\ \hline\end{array}\) \& \(\begin{array}{rr}20 \& 0 \\ \& 8\end{array}\) \& \begin{tabular}{l}
\(18 \quad 5\) \\
\\
\\
\hline
\end{tabular} \& \(20 \quad 8\)

10 <br>
\hline Value of consumption ... \& 2511 \& 2111 \& 209 \& 208 \& 1811 \& 216 <br>
\hline Percentage increase in expen-diture-4th Quarter 1951 to 4th Quarter 1952 $\qquad$ \& $8 \cdot 5$ \& $11 \cdot 1$ \& $16 \cdot 4$ \& $17 \cdot 6$ \& 11.6 \& $15 \cdot 0$ <br>
\hline
\end{tabular}

60. This tendency for class differences to lessen is also shown by a percentage comparison of the annual average value of consumption for each class with that for all households, over the years 1950 to 1952.

TABLE 18
Value of Consumption by Households of Different Social Class compared with All Honseholds

|  |  |  |  | A | B | C | D |  | All housoholds |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | Excluding O.A.P | O.A.P. |  |
| 1950 | $\ldots$ | $\ldots$ | $\ldots$ | 129 | 112 | 98 | 93 | 91 | 100 |
| 1951 | $\ldots$ | $\ldots$ | ... | 129 | 108 | 97 | 94 | 87 | 100 |
| 1952 | ... | ... | ... | 121 | 102 | 97 | 96 | 88 | 100 |

61. The comparison with previous years may be slightly affected by the modifications of Survey technique in 1951, but it also reflects the changes in the social structure of the sample referred to above. The narrowing of the differences between the classes here distinguished was partly the result of a movement of some households from the top of one class to the bottom of the next and a consequent reduction in the averages for the higher classes, which moreover now contained a higher proportion of households with children. Class D, containing a large number of non-earners, was less affected by the general rise in income, although Old Age Pensioners received an increase of pension in September 1952.
62. The widest range of consumption and expenditure occurred in fresh fruit, the consumption of Class A being 59 per cent. above the average for all households and that of Old Age Pensioner households 31 per cent. below. (Tables 19 and 20.) Class A also had a high consumption of milk, eggs, fresh fish and fresh green vegetables. For all these items the major difference was between Class A and the remainder; the difference between Class B and Class C was not very marked except for fruit. Both consumed less fresh fish than Class D , but there is a higher consumption of this food in childless households, the majority of which are found in Classes A and D. The reverse was true for canned and cooked fish.
63. Differences in the consumption of rationed meat were due to household composition, and there was little variation for bacon. Other, unrationed, meat was consumed in greatest quantity by Class A and least by O.A.P. households. Consumption of cheese, fats, and sugar showed small differences, although Class A consumed rather more than the average in each case; the largest difference among these items was for butter. The main items of which the poorer classes consumed most were bread, potatoes and tea. Expenditure followed a similar pattern, except for milk. The cost of milk to Classes A, $B$ and $C$ was substantially lowered by their entitlement to welfare milk for children. The Old Age Pensioner households contained no children and the rest of Class $D$ had very few, so that their expenditure on milk was high in relation to their consumption. The expenditure of Class A on eggs was low in relation to consumption, because of their larger supplies of home-produced eggs; their relative expenditure on fresh green vegetables and fresh fish, on the other hand, was very high, indicating that they not only bought more but bought the dearer kinds.
64. Comparing the second half of 1952 with the corresponding period of 1951, all classes, with one minor exception, consumed slightly less liquid milk, cheese, fish, fruit and sugar. (Class D households other than Old Age Pensioners
showed no significant change in their consumption of milk and fruit.) The decrease in liquid milk varied from about $\frac{1}{8}$ pint in Class $\mathbf{C}$ and $\frac{1}{8}$ pint in Old Age Pensioner households to $\frac{2}{8}$ pint per head per week in Class A. In spite of these decreases, expenditure on milk, cheese and sugar rose slightly. In compensation all classes consumed more eggs, the increase being greatest in Class A, and more meat, although for both these items expenditure rose considerably more than consumption because of the rise in prices. All classes except Class A increased their consumption of tea, and their expenditure increased by about twice as much proportionately. The main rise in consumption took place in the third quarter when the ration was increased; no further rise took place when tea was freed from rationing in the last quarter, but the usual class gradient was reversed, Class A consuming less than Classes B and C.

TABLE 19

## Domestic Food Consumption by Social Class 1952

oz. per head per week except where otherwise stated

|  | Social Class |  |  |  |  | All households |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | A | B | C | D |  |  |
|  |  |  |  | $\begin{array}{\|l\|} \hline \text { Excluding } \\ \text { O.A.P. } \end{array}$ | O.A.P. |  |
| Mry- |  |  |  |  |  |  |
| Liquid, retail (pt.) | $5 \cdot 10$ | $3 \cdot 88$ | $3 \cdot 67$ | 4-14 | 4•70 | 3.96 |
| Liquid, welfare and school <br> (pt.) | $0 \cdot 90$ | 1.09 | 0.91 | $0 \cdot 39$ | - | $0 \cdot 86$ |
| (pt. or eq. pt.)cream | $0 \cdot 18$ | $0 \cdot 29$ | $0 \cdot 30$ | 0-18 | 0.12 | $0 \cdot 26$ |
| Total Max | $6 \cdot 18$ | $5 \cdot 26$ | $4 \cdot 88$ | $4 \cdot 71$ | $4 \cdot 82$ | $5 \cdot 08$ |
| Carbass | $2 \cdot 29$ | $2 \cdot 10$ | $2 \cdot 21$ | $2 \cdot 12$ | 2.01 | $2 \cdot 17$ |
| Mrat- <br> Rationed | $12 \cdot 12$ | 11.79 | $11 \cdot 60$ | 12.43 | $13 \cdot 15$ | 11.86 |
| Bacon | $4 \cdot 83$ | 4.91 | $4 \cdot 85$ | 5.00 | $4 \cdot 79$ | $4 \cdot 88$ |
| Other meat | 13.25 | 12.10 | $12 \cdot 41$ | 12.12 | 9.83 | $12 \cdot 25$ |
| Total Meat | 30-20 | $28 \cdot 80$ | $28 \cdot 86$ | 29.55 | $27 \cdot 77$ | 28.99 |
| Pish - |  |  |  |  |  |  |
| Presh and processed ... | $8 \cdot 36$ | $5 \cdot 78$ | 5.29 | $6 \cdot 30$ | $6 \cdot 17$ | 5.87 |
| Prepared ... ... ... | 1.06 | $1 \cdot 62$ | $1 \cdot 81$ | $1 \cdot 72$ | $1 \cdot 31$ | $1 \cdot 65$ |
| Total Fish | $9 \cdot 42$ | $7 \cdot 40$ | $7 \cdot 10$ | $8 \cdot 02$ | $7 \cdot 48$ | $7 \cdot 52$ |
| Ecocs, shell, hens' (No.) ... | $3 \cdot 63$ | $2 \cdot 96$ | 2.93 | $2 \cdot 68$ | $2 \cdot 39$ | $2 \cdot 95$ |
| FatsButter | $3 \cdot 04$ | $2 \cdot 78$ | $2 \cdot 76$ | $2 \cdot 74$ | $2 \cdot 92$ | $2 \cdot 79$ |
| Margarine | 4.32 | $4 \cdot 41$ | 4.39 | $4 \cdot 39$ | 4.45 | $4 \cdot 39$ |
| Cooking fats, rationed | 1.93 | $2 \cdot 03$ | $2 \cdot 00$ | 1.95 | 2.07 | 2.01 |
| Other fats ... | $0 \cdot 56$ | 0.61 | $0 \cdot 60$ | $0 \cdot 59$ | 0.41 | $0 \cdot 59$ |
| Total Fats | 9.85 | $9 \cdot 83$ | 9.75 | $9 \cdot 67$ | 9.85 | $9 \cdot 78$ |
| Sugar and Presbrves Sugar | 11.24 | 11.08 | 10.91 | 10.96 | $10 \cdot 83$ | $11 \cdot 00$ |
| and treacle ... ... | $6 \cdot 44$ | $5 \cdot 97$ | $6 \cdot 17$ | $5 \cdot 64$ | $6 \cdot 39$ | 6.05 |
| Total Sugar and Presergves | 17-68 | $17 \cdot 05$ | 17-08 | $16 \cdot 60$ | 17-22 | $17 \cdot 05$ |

TABLE 19-continued
oz. per head per week except where otherwise stated

|  | Social Class |  |  |  |  | $\begin{aligned} & \text { All } \\ & \text { houso- } \\ & \text { holds } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | A | B | C | D |  |  |
|  |  |  |  | $\begin{aligned} & \text { Excludine } \\ & \text { O.A.P. } \end{aligned}$ | O.A.P. |  |
| VegetablesPotatoes (including chips and crisps) | $53 \cdot 25$ | 66.86 | 68.95 | 65-29 | 56.46 | $65 \cdot 94$ |
| Presh green ... ... Other | $18 \cdot 13$ 17.60 | 16.75 16.45 | $16 \cdot 21$ $16 \cdot 10$ | $15 \cdot 77$ $16 \cdot 14$ | 15.93 13.06 | $16 \cdot 37$ 16.26 |
| Total Vbegtablibs other than Pota- toes ... | $35 \cdot 73$ | 33-20 | 32-31 | 31.91 | 28.99 | 32-63 |
| $\begin{aligned} & \text { Frumt }(a) \\ & \text { Fresh } \\ & \text { Other }(b) \end{aligned} \quad \ldots \quad . . .$ | 34.45 6.21 | $23 \cdot 40$ 4.85 | 18.33 3.83 | $18 \cdot 56$ $3 \cdot 21$ | 15.02 2.26 | $21 \cdot 21$ $4 \cdot 18$ |
| Total Fruit | $40 \cdot 66$ | 28.25 | 22-16 | $21 \cdot 77$ | $17 \cdot 28$ | $25 \cdot 39$ |
| Charals-    <br> Bread (c) $\ldots$ $\ldots$  <br> Flour $\ldots$ $\ldots$ $\ldots$ <br> Other $\ldots$ $\ldots$ $\ldots$ | $\begin{array}{r} 46.63 \\ 7.72 \\ 19.80 \end{array}$ | $\begin{array}{r} 55.94 \\ 8.57 \\ 18.54 \end{array}$ | $\begin{array}{r} 63 \cdot 74 \\ 8.42 \\ 17.74 \end{array}$ | $\begin{array}{r} 63 \cdot 30 \\ 8 \cdot 48 \\ 16 \cdot 62 \end{array}$ | $\begin{array}{r} 58.63 \\ 9.98 \\ 15.24 \end{array}$ | $\begin{array}{r} 59 \cdot 56 \\ 8.46 \\ 17.89 \end{array}$ |
| total Crrbals . | $74 \cdot 15$ | 83.05 | 89.90 | 88.40 | 83.85 | 85.91 |
| BeveragesTea Coffee and cocoä drinks | $\begin{aligned} & 2.09 \\ & 1.30 \end{aligned}$ | $\begin{aligned} & 2 \cdot 13 \\ & 0.75 \end{aligned}$ | 2.16 0.77 | 2.50 0.82 | 3.00 0.83 | 2.21 0.83 |
| Total Beverages | $3 \cdot 39$ | $2 \cdot 88$ | 2.93 | $3 \cdot 32$ | $3 \cdot 83$ | 3.04 |

(a) Includes tomatoes.
(b) Includes canned and bottled.
(c) Includes rolls, muffins and crumpets. Sandwiches and fruit bread are included in "Other cereals".

TABLE 20

## Domestic Food Expenditure by Social Class 1952

|  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

(a) Includes tomatoes. (b) Includes canned and bottled.

TABLE 20-continued

(c) Includes rolls, muffins and crumpets. Sandwiches and fruit bread are included in "Other cercals ".

## ENERGY VALUE AND NUTRIENT CONTENT

65. Tables 21 and 22 show the nutritive value and adequacy of household diets by social class. The nutritive values of the food consumption of Classes B and C and of Class D, excluding Old Age Pensioner households, are closely similar; those for Class $\mathbf{A}$ are slightly higher for most nutrients and those for the Old Age Pensioner households lower.
66. The average diets of all classes reached the standard for all nutrients, with the single exception of the iron content of the diet of Old Age Pensioner households which only reached 90 per cent. of the recommended standard. It is possible, however, that the standard for this mineral errs on the high side for old persons.
67. It will be seen that for the energy value of the diet and for protein, calcium and the vitamins of the B complex, the percentages showed a downward trend from Class A to Class $\mathbf{C}$ and rose again in Class D. For vitamins $\mathbf{A}$ and $C$ and for iron, which are not related to energy requirements, there was a continuous downward gradient from Class A to Old Age Pensioner housoholds.
68. Table 23 shows the proportion of total energy value derived from different sources in 1950 and 1952. The changes resulted from increased consumption of cereals and sugar and decreased consumption of fats, in all classes.

TABLE 21

## Energy Value and Nutrient Content of Domestic Food Consumption 1952 by Social Class

| per head per day |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Social Class |  |  |  |  |
|  |  | A | B | C | D |  |
|  |  | $\begin{aligned} & \text { Excluding } \\ & \text { O.A.P. } \end{aligned}$ |  |  | O.A.P. |
| Energy value | ... Cal. |  | 2,403 | 2,436 | 2,482 | 2,434 | 2,341 |
| Total protein | $\ldots \mathrm{g}$. | 78 | , 77 | 78 | 77 | 73 |
| Animal protein | $\ldots \mathrm{g}$. | 43 | 38 | 37. | 37 | 35 |
| Fat ... ... | ... g. | 98 | 94 | 933 | 92 | 90 |
| Carbohydrate | $\ldots \mathrm{g}$. | 303 | 321 | 333 | 324 | 310 |
| Calcium ... | $\ldots \mathrm{mg}$. | 1,105 | 1,048 | 1,046 | 1,015 | 988 |
| Iron | ... mg. | 13.1 | 13.1 | 13.2 | 1,42.9 | 12.0 |
| Vitamin A (a) | ... i.u. | 3,978 | 3,677 | 3,413 | 3,465 | 3,074 |
| Vitamin $\mathbf{B}_{1}($ b $) \quad$. | ... mg. | $1 \cdot 26$ | 1.28 | 1.30 | 1.28 | $1 \cdot 20$ |
| Riboflavin... | ... mg. | 1.79 | 1.66 | 1.62 | 1-61 | 1.56 |
| Nicotinic acid | $\ldots \mathrm{mg}$. | $13 \cdot 3$ | 12.9 | 12.9 | $13 \cdot 0$ | $12 \cdot 2$ |
| Vitamin C (c) (b) ... | ... mg. | 64 | 126 146 | ${ }_{150}^{51}$ | 50 | +44 |
| Vitamin D (a) $\ldots$ | ... i.u. | 160 | 146 | 150 | 145 | 128 |

(a) Excludes Welfare fish liver oil and vitamin $A$ and $D$ tablets.
(b) Allowances have been made for cooking losses according to Medical Research Council War Memorandum No. 14.
(c) Includes Welfare orange juice.

TABLE 22
Energy Value and Nutrient Content of Domestic Food Consumption 1952, as Percentage of Standards based on the British Medical Association's Recommendations

|  |  |  |  | Social Class |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | A | B | C | D |  |
|  |  |  |  | $\begin{aligned} & \text { Excluding } \\ & \text { O.A.P. } \end{aligned}$ |  |  | O.A.P. |
| Energy value |  |  |  |  | Per cent. 103 | Per cent. $100$ | Per cent. 97 | Per cent. 99 | Per cent. 101 |
| Total protein | $\cdots$ | $\ldots$ | $\ldots$ | 110 | 104 | 103 | 109 | 115 |
| Calcium ... | $\ldots$ | ... |  | 116 | 107 | 107 | 111 | 112 |
| Iron ... | ... |  | .. | 109 | 108 | 107 | 103 | 90 |
| Vitamin $\mathbf{A}$ | ... | $\cdots$ | $\cdots$ | 171 | 159 | 144 | 139 | 112 |
| Vitamin $\mathbf{B}_{1}$ | ... | $\ldots$ | $\ldots$ | 136 | 132 | 128 | 131 | 131 |
| Riboflavin | ... | .. | $\ldots$ | 125 | 113 | 104 | 108 | 111 |
| Nicotinic acid |  |  | ... | 143 | 134 | 128 | 134 | 133 |
| Vitamin C (a) | ... | ... | ... | 300 | 260 | 234 | 229 | 199 |

(a) See paragraph 49, footnote ( ${ }^{1}$ ).

TABLE 23
Percentage of Energy Valme of Diets derived from Protein, Fat and Carbohydrate: 1952 compared with 1950


## V. HOUSEHOLD DIETS AND FAMILY COMPOSITION

## EXPENDITURE AND CONSUMPTION

69. Earlier studies have indicated that the effect of household composition on food expenditure and consumption is greater than that of social class, and this conclusion was confirmed in 1952. Comparisons have been confined to households containing one man and one woman, with or without adolescents or children. Old Age Pensioner households are excluded. These types comprise 58 per cent. of the sample. A general discussion of the composition of the sample will be found in Appendix A. The households with children were distributed among Classes A, B and C in a manner sufficiently similar to make comparisons valid, and there were very few such households in Class D. The distribution of households without children was different, as 20 per cent. of them were in Class D. A further difference was found in the age distribution of the adults. Even when Old Age Pensioner households were excluded, the average age of the childless couples was high; in 195262 per cent. of them included a person aged 55 or over, whereas such persons were absent from almost all households with children. It has been found that, after the age of 55 , average income and average food expenditure tend to decrease; (a high proportion of Class D households were of this type).
70. In view of these differences in age and income between childless couples and families with children, the two groups are not strictly comparable for the purpose of studying the net effect of children. However, by excluding households in which either adult is aged over 55, it is possible to obtain a class of
households consisting of one man and one woman only, which is similar to the family households in important respects. The age-structure is comparable, since analysis has shown that differences in age between 21 and 54 have little effect on food expenditure; the social class structure is similar, because most of the Class D households are excluded by the age-limit of 55; and the average net family income (after deduction of income tax) appears to be similar.
71. Table 24 shows the distribution of these households. It will be seen that the proportion of workers in physically active occupations was high among large families. The estimated proportion of net family income spent on food rose steeply from 31 per cent for younger couples with no children to 47 per cent. for households with four or more children. These estimates were based on information supplied by housewives and are believed to err on the high side (see paragraph 56 above).
72. Expenditure and value of consumption by quarters of the year are shown in Table 25 for families with varying numbers of children and families with adolescents, for couples aged under 55, and also for all childless couples (except Old Age Pensioners). Households of all types increased their expenditure between the first and second quarters, and expenditure remained at the higher level during the summer. There was a further increase in the fourth quarter for all types except the childless couples and the largest families. The latter group, unlike any of the other types, reduced their expenditure in the fourth quarter. Between the last quarters of 1951 and 1952 the increase in food expenditure varied from 10.8 per cent. for childless couples to 17.8 per cent., for households containing both children and adolescents, compared with an average rise of 13 per cent. in food prices. The childless couple showed less change than any of the other types, and they and the households with three or more children all showed an increase of under 13 per cent. over the year.

TABLE 25
Domestic Food Expenditure and Value of Consumption by Household Composition 1952

\begin{tabular}{|c|c|c|c|c|c|c|c|c|}
\hline \multirow[t]{3}{*}{} \& \multicolumn{8}{|c|}{Households with 1 male and 1 female adult and} \\
\hline \& \multicolumn{2}{|l|}{No other} \& \multicolumn{4}{|c|}{Children only} \& \& Adoles \\
\hline \& All except O.A.Ps \& Both Adults under 55 \& 1 \& 2 \& 3 \& \[
\begin{aligned}
\& 4 \text { or } \\
\& \text { more }
\end{aligned}
\] \& cents enly \& \[
\begin{gathered}
\text { cents } \\
\text { and } \\
\text { children }
\end{gathered}
\] \\
\hline Ist Quarter Expenditure Value of " free " food... \& \(\begin{array}{cc}\text { s. } \\ 24 \& \\ \\ \& 11 \\ \& 11\end{array}\) \& \begin{tabular}{l} 
s. d. \\
26 \\
\\
\\
\\
\hline 8
\end{tabular} \& \(\begin{array}{cr}\text { s. } \& \text { d. } \\ 20 \& 5 \\ \& 8\end{array}\) \& \[
\begin{array}{r}
\text { s. d. } \\
17 \begin{array}{r}
6 \\
5
\end{array}
\end{array}
\] \& s.
d.
15

4 \& $$
\begin{array}{cr}
\text { s. } & \text { d. } \\
13 & 5
\end{array}
$$ \& s. ${ }^{\text {d. }}$. 6 \& \[

$$
\begin{gathered}
\text { s. d. } \\
17 \\
\hline
\end{gathered}
$$
\] <br>

\hline Value of consumption \& 250 \& 272 \& 211 \& 1711 \& 16 \& 138 \& 233 \& 1710 <br>

\hline | 2nd Quarter |
| :--- |
| Expenditure |
| Value of " free" food. | \& $\begin{array}{rr}26 & 3 \\ 1 & 2\end{array}$ \& $\begin{array}{rr}28 & 5 \\ 1 & 2\end{array}$ \& $22 \begin{array}{rr}1 \\ & 9\end{array}$ \& $19 \quad 2$ \& 16

10 \& $\begin{array}{rr}15 & 7 \\ 1 & 0\end{array}$ \& $\begin{array}{rr}24 & 5 \\ 1 & 1\end{array}$ \& | 19 | 3 |
| ---: | ---: |
|  |  | <br>

\hline Value of consumption \& $27 \quad 5$ \& 297 \& 2210 \& 199 \& $17 \quad 7$ \& 167 \& 256 \& 1911 <br>

\hline | 3rd Quarter |
| :--- |
| Expenditure |
| Value of " free" food. | \& 2611

26 \& $\begin{array}{rr}29 & 0 \\ 2 & 3\end{array}$ \& | 22 | 2 |
| ---: | ---: |
| 1 | 3 | \& $\begin{array}{rr}18 & 8 \\ 1 & 2\end{array}$ \& $16 \begin{array}{rr}16 \\ & 11\end{array}$ \& $\begin{array}{rr}15 & 5 \\ & 10\end{array}$ \& $\begin{array}{rrr}24 & 2 \\ 1 & 11\end{array}$ \& $\begin{array}{r}18 \\ \\ \\ 10 \\ \hline\end{array}$ <br>

\hline Value of consumption \& 2811 \& 313 \& 235 \& 1910 \& 170 \& 163 \& 261 \& 1810 <br>

\hline 4th Quarter Expenditure Value of " free" food. \& | 26 | 5 |
| ---: | ---: |
|  | 10 | \& 2910

6 \& \begin{tabular}{|r|}
23 <br>
<br>
<br>
\hline

 \& 

19 <br>
<br>
<br>
\hline
\end{tabular} \& $17 \begin{array}{ll}17 & 3 \\ & 5\end{array}$ \& 146 \& $\begin{array}{r}24 \\ \\ \\ \hline 9\end{array}$ \& 1911 <br>

\hline Value of consumption... \& 273 \& 304 \& $23 \quad 5$ \& 1910 \& $17 \quad 8$ \& 146 \& 253 \& 204 <br>

\hline | Annual Average |
| :--- |
| Expenditure |
| Value of " free " food. | \& $\begin{array}{rrr}25 & 11 \\ 1 & 3\end{array}$ \& $\begin{array}{rr}28 & 6 \\ 1 & 1\end{array}$ \& 2111 \& | 18 |
| ---: | \& | $16 \quad 5$ |
| :--- |
|  | \& | 14 |
| ---: |
|  |
|  | \& $\begin{array}{rr}23 & 11 \\ 1 & 2\end{array}$ \& | $18 \quad 8$ |
| :--- |
|  |
|  | <br>

\hline Value of consumption \& 272 \& 297 \& 228 \& 194 \& 17 0 \& $15 \quad 4$ \& 251 \& 192 <br>
\hline Percentage increase in expenditure - 4th Quarter 1951 to 4th Quarter 1952 \& Per cent.

\[
10 \cdot 8

\] \& | Per cent. |
| :--- |
| n.a. | \& Per cent.

$$
14 \cdot 7
$$ \& Per cent.

$$
15 \cdot 8
$$ \& Per cent.

$$
11 \cdot 1
$$ \& Per cent.

$$
12 \cdot 2
$$ \& Per cent.

$$
17 \cdot 6
$$ \& Per cent.

$$
17 \cdot 8
$$ <br>

\hline Average size of household ... \& 2.0 \& $2 \cdot 0$ \& $3 \cdot 0$ \& $4 \cdot 0$ \& $5 \cdot 0$ \& $6 \cdot 40$ \& $3 \cdot 25$ \& $5 \cdot 18$ <br>
\hline
\end{tabular}

73. The relative levels in the various household types may be seen from their average value of consumption per head in each of the years 1950, 1951 and 1952, expressed as a percentage of the average for all households (Table 26).

TABLE 26
Value of Consumption per head of Households of Different Composition as a Percentage of All Households 1950, 1951 and 1952

74. These ratios remained remarkably constant in practically all groups, ranging from 27-29 per cent. above the average for childless couples to 29-30 per cent. below for couples with four or more children. The main exception was the household with one child, whose relative value of consumption fell from 116 per cent. in 1950 to 106 per cent. in 1952. Family households with adolescents only were nearest to the level for childless couples, as would be be expected; those with children only showed a progressive decrease as the number of children rose; those with adolescents and children occupied the same level as households with two children. The pattern persisted through time, except for households with one child. The level for childless couples under 55 (computed for 1952 only) was substantially higher than that in any other group, at 38 per cent. above the average for all households.
75. Tables 28 and 29 give details of consumption and expenditure per head, and Table 27 summarises the more important differences. The composition of the diet showed differences between types of family broadly similar to those found in the two preceding years. Consumption of liquid milk ranged from 5.7 pints per head for the younger adult households to 4.3 pints in households with four or more children. Among the latter, welfare and school milk provided nearly half the total. Consumption was also as low as $4 \cdot 3$ pints per head in households containing both adolescents and children. The effect of cheap and free milk for children is clearly apparent from the expenditure figures, the adult households spending more than twice as much as the households with four or more children. The larger families consumed slightly more condensed and dried milk than the rest, but the maximum amount was equivalent to only half a pint of liquid milk per head. Between the second half of 1951 and the second half of 1952, the largest families (i.e., those with three or more children and those with both children and adolescents) decreased their consumption of liquid milk by about one sixth of a pint per bead per week: there was little change for other types of household.
76. Consumption of rationed meat per head showed a steady decline with size of family, which could only be attributed in part to the fact that children under 5 were entitled to half the adult ration. Larger quantities of bacon and unrationed meat were also consumed by the adult households. The trend was even more marked for fresh fish; adult households consumed more than three times as much per head as those with four or more children, while the difference for prepared fish was less. This may be partly a reflection of children's tastes. Households with children also ate less cheese and fewer eggs.

TABLE 27
Consumption per head by Households with Children or Adolescents as a percentage of Consumption by Childless Couples 1952

|  |  | Households containing 1 male and 1 female adult and |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | No other (both adults under 55) | Children only |  |  |  | Adolescents only | Adolescents and children |
|  |  | 1 | 2 | 3 | 4 or more |  |  |
| Liquid milk | $\cdots$ |  | 100 | 94 | 88 | 84 | 75 | 84 | 76 |
| Meat and bacon | $\ldots$ | 100 | 74 | 63 | 56 | 50 | 85 | 65 |
| Fish ... .. | $\cdots$ | 100 | 60 | 47 | 41 | 37 | 78 | 52 |
| Eggs, shell, hens' | $\ldots$ | 100 | 84 | 77 | 70 | 68 | 88 | 69 |
| Potatoes ... ... | ... | 100 | 94 | 83 | 87 | 92 | 100 | 99 |
| Fresh green vegetables |  | 100 | 70 | 56 | 47 | 46 | 79 | 54 |
| Fresh fruit ... | $\cdots$ | 100 | 74 | 63 | 49 | 37 | 82 | 57 |
| Bread ... | . | 100 | 83 | 74 | 76 | 86 | 102 | 101 |

77. Household differences were particularly noticeable for fresh vegetables and fresh fruit; consumption per head was highest for childless couples, and there was a steep downward gradient between households with one child and those with more than one. Differences were much smaller for cereals, sugar and preserves, and all fats. Consumption per head of bread and potatoes declined as the size of family increased up to two children, but rose again in families with three or more, probably because these are relatively cheap foods; it was greatest in households with adolescents, whose energy requirements are high.
78. It is naturally to be expected that the consumption per head of some foods would be lower in families with children, because of the smaller needs of children; but it is instructive to compare the differing ratios for different kinds of food. In general, the greatest decrease was found for the foods providing animal protein. and for fresh fruit and green vegetables, while the gradient was far less steep for cereals, sugar and fats.

TABLE 28
Domestic Food Consumption by Household Composition 1952
oz per head per woek except where otherwise stated

| oz per head per weok except where otherwise stated |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Households with 1 male and 1 female adult and |  |  |  |  |  |  |  |
|  | No other |  | Children only |  |  |  | Adolescents only | Adolescents and children |
|  | $\begin{gathered} \text { All } \\ \text { except } \\ \text { O.A.P. } \end{gathered}$ | Both Adults under 55 | 1 | 2 | 3 | 4 or more |  |  |
| Mmk- |  |  |  |  |  |  |  |  |
| Liquid, retail (pt.) ... | $5 \cdot 44$ | 5.53 | $4 \cdot 00$ | $3 \cdot 16$ | $2 \cdot 79$ | $2 \cdot 22$ | $4 \cdot 68$ | 3.45 |
| school (pt.) ... | $0 \cdot 07$ | 0. 19 | 1.37 | 1.85 | 2.01 | 2.09 | $0 \cdot 10$ | 0.87 |
| (pt. or eq. pt.) | 0.19 | $0 \cdot 22$ | 0.39 | 0.37 | 0.32 | 0.44 | $0 \cdot 20$ | 0-22 |
| Total Mllk | $5 \cdot 70$ | 5.94 | $5 \cdot 76$ | $5 \cdot 38$ | $5 \cdot 12$ | $4 \cdot 75$ | 4.98 | 4.54 |
| Chrese | $2 \cdot 84$ | 2.88 | $2 \cdot 11$ | 1.86 | 1.65 | 1.52 | $2 \cdot 46$ | 1.95 |
| Meat- |  |  |  |  |  |  |  |  |
| Bacon ... ... | 5.44 | $5 \cdot 64$ | 11.99 5.01 | $10 \cdot 50$ 4.64 | 9.36 4.43 | 8.85 4.20 | 13.25 5.08 | $10 \cdot 81$ $4 \cdot 41$ |
| Other meat | $16 \cdot 67$ | $19 \cdot 10$ | 12.44 | 10.11 | 8.56 | $6 \cdot 79$ | 15.64 | 10.69 |
| Total Meat ... | $36 \cdot 72$ | 39.84 | 29.44 | 25.25 | $22 \cdot 35$ | 19.84 | 33.97 | 25.91 |
| Fish- <br> Fresh and processed |  |  |  |  |  |  |  |  |
|  | 9.88 | 9.38 | 5.41 | $4 \cdot 10$ | $3 \cdot 33$ | 3.06 | 6.92 | 4.45 |
| Prepared ... | 1.83 | $2 \cdot 28$ | 1.61 | $1 \cdot 38$ | 1.42 | 1.24 | $2 \cdot 23$ | 1-66 |
| Total Fish | 11.71 | 11.66 | $7 \cdot 02$ | $5 \cdot 48$ | 4.75 | $4 \cdot 30$ | $9 \cdot 15$ | 6-11 |
| Egos, shell, hens' (No.) | $3 \cdot 45$ | $3 \cdot 73$ | $3 \cdot 12$ | $2 \cdot 86$ | $2 \cdot 63$ | $2 \cdot 52$ | $3 \cdot 28$ | 2-59 |
| Fats- |  |  |  |  |  |  |  |  |
| Margarine $\ldots$... | 2.91 4.55 | 2.91 4.61 | 2.76 4.38 | 2.79 4.28 | 2.79 4.30 | 2.75 | $2 \cdot 80$ | $2 \cdot 70$ |
| Cooking fats, rationed.... | 2.07 | $4 \cdot 61$ $2 \cdot 17$ | 4.38 2.02 | 4.28 1.96 | 4.30 1.97 | 4.44 2.04 | 4.50 2.03 | 4.42 |
| Other fats ... . | 0.85 | 0.82 | 0.52 | 1.96 0.44 | 1.97 0.44 | 2.44 0.18 | 2.03 0.81 | 2.00 0.52 |
| Total Fats | $10 \cdot 38$ | 10.51 | $9 \cdot 68$ | $9 \cdot 47$ | $9 \cdot 50$ | $9 \cdot 41$ | 10.14 | $9 \cdot 64$ |
| Sugar and preservesSugar Honey, preserves, syrup and treacle | $11 \cdot 69$ | 11.90 |  |  |  |  |  |  |
|  | 11.69 | 11.90 |  |  |  |  | $11 \cdot 30$ | 10.79 |
|  | $7 \cdot 24$ | $7 \cdot 42$ | $6 \cdot 22$ | $5 \cdot 68$ | $5 \cdot 32$ | 5.09 | $7 \cdot 08$ | $6 \cdot 45$ |
| Total Sugar and Preserves. | $18 \cdot 93$ | $19 \cdot 32$ | $17 \cdot 37$ | $16 \cdot 78$ | $15 \cdot 98$ | 15.91 | $18 \cdot 38$ | $17 \cdot 24$ |
| $\begin{aligned} & \text { Vegetables-- } \\ & \text { Potatoes(a) } \end{aligned}$ | $68 \cdot 89$ | 71.33 | 67-36 | $59 \cdot 26$ | 62-37 | $65 \cdot 37$ | $71 \cdot 20$ | 70-34 |
| Fresh greenOther | $23 \cdot 14$ | $24 \cdot 56$ | $17 \cdot 31$ | $13 \cdot 84$ | 11-62 |  |  |  |
|  | $19 \cdot 54$ | $22 \cdot 51$ | $17 \cdot 58$ | 13.84 14.91 | 11.62 | 11.23 | $\begin{aligned} & 19 \cdot 46 \\ & 19 \cdot 21 \end{aligned}$ | $\begin{aligned} & 13 \cdot 14 \\ & 15 \cdot 09 \end{aligned}$ |
| Total Vegetables othrr than potatoes | 42-68 | $47 \cdot 07$ | 34-89 | $28 \cdot 75$ | $25 \cdot 33$ | $23 \cdot 16$ | $38 \cdot 67$ | $28 \cdot 23$ |

'a) Includes chips and crisps.

TABLE 28-continued oz per head per week except where otherwise stated

|  | Households with 1 male and 1 female adult and |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No other |  | Children only |  |  |  | Adolescents only | Adolescents and children |
|  | $\begin{aligned} & \text { All } \\ & \text { except } \\ & \text { O.A.P. } \end{aligned}$ | Both Adults under 55 | 1 | 2 | 3 | 4 or more |  |  |
| $\begin{aligned} & \text { Frurr }(b) \\ & \text { Fresh } \\ & \text { Other }(c) \end{aligned}$ | 28.97 5.21 | 31.33 5.49 | $23 \cdot 21$ $5 \cdot 22$ | 19.75 4.24 | 15.26 3.07 | 11.68 3.07 | 25.75 4.53 | 17.77 3.62 |
| Total Frutt | 34-18 | $36 \cdot 82$ | 28.43 | 23.99 | 18.33 | 14.75 | $30 \cdot 28$ | $21 \cdot 39$ |
| Cereals- |  |  |  |  |  |  |  |  |
| Bread (d) ... | 63.94 11.50 |  |  |  |  | 57.44 | 68.21 | 67-53 |
| Flour ... | 11.50 21.97 | 96.94 24.54 | 8.60 19.98 | 7.40 16.79 | 6.44 15.44 | 57.96 13.94 | 10.02 | $7 \cdot 31$ 16.18 |
| Other ... |  | $24 \cdot 54$ | 19.98 | 16.79 | $15 \cdot 44$ | 13.94 | 20.96 | $16 \cdot 18$ |
| Total Cereals | $97 \cdot 41$ | $101 \cdot 42$ | 84.07 | $73 \cdot 67$ | 72.79 | 77-34 | 99.19 | 91.02 |
| BeveragesTea Coffee and cocoa drinks | 2.87 1.22 | 2.91 1.23 | 2.08 0.84 | 1.85 0.71 | 1.70 0.60 | 1.48 0.54 | 2.45 0.91 | 2.01 0.71 |
| Total Beveruars ... | 4.09 | 4-14 | 2.92 | 2.56 | $2 \cdot 30$ | $2 \cdot 02$ | $3 \cdot 36$ | $2 \cdot 72$ |

(b) Includes tomatoes.
(c) Includes canned and bottled.
(d) Includes rolls, muffins and crumpets. Sandwiches and fruit bread are included in "Other cereals".

TABLE 29

## Domestic Food Expenditure by Household Composition 1952

pence per head per week

|  | Households with 1 male and 1 female adult and |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No other |  | Children only |  |  |  | Adolescents only | Adolescents and children |
|  | $\begin{gathered} \text { All } \\ \text { except } \\ \text { O.A.P. } \end{gathered}$ | Both Adults under 55 | 1 | 2 | 3 | 4 or more |  |  |
| Mnx- |  |  |  |  |  |  |  |  |
| Liquid, retail ... ... | $34 \cdot 23$ | $34 \cdot 60$ | 25-19 | 19.96 | $16 \cdot 84$ | $13 \cdot 35$ | $28 \cdot 88$ | $21 \cdot 54$ |
| $\begin{array}{cc}\text { Liquid, welfare } \\ \text { school } & \text { and } \\ \ldots & \ldots\end{array}$ | $0 \cdot 11$ | $0 \cdot 28$ | $2 \cdot 14$ | $2 \cdot 70$ | $2 \cdot 68$ | $2 \cdot 59$ | 0.02 | 0.79 |
| Other milk and cream ... | 1.49 | 1.89 | $2 \cdot 01$ | 1.81 | 1.31 | 1.42 | 1.67 | 1.27 |
| Total Milk | $35 \cdot 83$ | $36 \cdot 77$ | 29.34 | 24.47 | 20.83 | 17.36 | $30 \cdot 57$ | $23 \cdot 60$ |
| Cheese | 6.02 | $6 \cdot 36$ | $4 \cdot 34$ | $3 \cdot 78$ | $3 \cdot 12$ | $2 \cdot 71$ | $5 \cdot 24$ | 3.91 |
| MratRationed | $28 \cdot 19$ | 29.98 | 23.71 | $20 \cdot 46$ | 18.00 |  |  |  |
|  |  |  |  | 20.76 | 11.91 | $16 \cdot 72$ | 25.86 | $20 \cdot 54$ |
| Other meat $\ldots$... $\ldots$ | 34.04 | 40.51 | 24.84 | 19.64 | 15.58 15 | 16.15 12.35 | 14.09 | 11.89 |
| Total Meat ... | $76 \cdot 87$ | $85 \cdot 69$ | 62.43 | 52.88 | $45 \cdot 49$ | $40 \cdot 22$ | $71 \cdot 42$ | 52.74 |

TABLE 29-continued
pence per head per week

|  | Households with 1 male and 1 female adult and |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No other |  | Children only |  |  |  | $\begin{gathered} \text { Adoles- } \\ \text { cents } \\ \text { only } \end{gathered}$ | Adoles cents and childre |
|  | All except O.A.P. | Both Adults under 55 | 1 | 2 | 3 | 4 or more |  |  |
| Fish- <br> Fresh and processed ... <br> Prepared | $\begin{array}{r} 14 \cdot 21 \\ 4 \cdot 71 \end{array}$ | 13.92 5.75 | 7.97 3.95 | 6.00 3.24 | $4 \cdot 55$ $3 \cdot 16$ | 4.05 2.69 | 9.90 5.29 | 6.02 3.73 |
| Total Fish | 18.92 | 19.67 | 11.92 | $9 \cdot 24$ | $7 \cdot 71$ | $6 \cdot 74$ | 15.19 | $9 \cdot 75$ |
| Eogs, shell, hens' | $12 \cdot 73$ | 14.09 | $12 \cdot 30$ | 11.90 | 10•70 | 10-10 | 12.06 | 10•74 |
| FATS- <br> Butter Margarine Cooking fats, rationed Other fats | $5 \cdot 68$ $4 \cdot 13$ $2 \cdot 15$ 1.41 | $5 \cdot 72$ $4 \cdot 18$ $2 \cdot 26$ 1.37 | 5.39 3.96 2.09 0.83 | 5.44 3.87 2.02 0.74 | 5.47 3.89 2.02 0.72 | $5 \cdot 22$ 4.00 $2 \cdot 10$ 0.29 | $5 \cdot 48$ 4.08 2.12 1.27 | $5 \cdot 21$ $4 \cdot 01$ $2 \cdot 07$ $0 \cdot 85$ |
| Total Fats | $13 \cdot 37$ | 13.53 | $12 \cdot 27$ | 12.07 | 12.10 | 11.61 | 12.95 | 12-14 |
| Suoar and PreservesSugar Honey, preserves, syrup and treacle ... | 4.60 6.99 | $\begin{aligned} & 4 \cdot 69 \\ & 7 \cdot 28 \end{aligned}$ | $\begin{aligned} & 4 \cdot 37 \\ & 6 \cdot 12 \end{aligned}$ | $\begin{aligned} & 4 \cdot 38 \\ & 5 \cdot 51 \end{aligned}$ | $\begin{aligned} & 4 \cdot 18 \\ & 5 \cdot 07 \end{aligned}$ | $4 \cdot 20$ $4 \cdot 74$ | $\begin{aligned} & 4 \cdot 46 \\ & 6 \cdot 85 \end{aligned}$ | $4 \cdot 23$ $6 \cdot 16$ |
| Total Sugar and Preserves | $11 \cdot 59$ | 11.97 | $10 \cdot 49$ | 9.89 | 9-25 | $8 \cdot 94$ | $11 \cdot 31$ | 10-39 |
| $\begin{aligned} & \text { Vegetables-} \\ & \text { Potatoes(a) } \end{aligned}$ | $10 \cdot 30$ | 11.84 | 10.27 | $9 \cdot 26$ | $9 \cdot 66$ | 9.92 | $11 \cdot 15$ | 11.22 |
| $\begin{array}{lll} \text { Fresh green } & \ldots & \ldots \\ \text { Other } \ldots & \ldots & \ldots \end{array}$ | $\begin{array}{r} 8 \cdot 74 \\ 10.67 \end{array}$ | $\begin{aligned} & 10 \cdot 31 \\ & 13.33 \end{aligned}$ | $\begin{array}{r} 6.46 \\ 10.44 \end{array}$ | $\begin{aligned} & 5.07 \\ & 9.02 \end{aligned}$ | $\begin{aligned} & 3 \cdot 86 \\ & 7.96 \end{aligned}$ | $\begin{aligned} & 3.35 \\ & 6.87 \end{aligned}$ | $\begin{array}{r} 7 \cdot 32 \\ 10 \cdot 62 \end{array}$ | $\begin{aligned} & 4 \cdot 72 \\ & 8 \cdot 84 \end{aligned}$ |
| Total Vegetables other than potatoes | $19 \cdot 41$ | $23 \cdot 64$ | 16.90 | 14.09 | 11.82 | $10 \cdot 22$ | 17.94 | $13 \cdot 56$ |
| $\begin{aligned} & \text { Frutr }(b) \\ & \underset{\text { Fresh }}{\text { Fther }(c)} \ldots \\ & \ldots \\ & \text { Ot..... } \end{aligned}$ | $20 \cdot 55$ 6.28 | $23 \cdot 29$ 7.81 | $17 \cdot 66$ 6.63 | $14 \cdot 23$ $5 \cdot 18$ | $10 \cdot 44$ $3 \cdot 68$ | $\begin{aligned} & 7.99 \\ & 3.49 \end{aligned}$ | 18.55 5.37 | 12.50 4.09 |
| Total Fruit | 26.83 | $31 \cdot 10$ | $24 \cdot 29$ | 19.41 | $14 \cdot 12$ | 11.48 | 23.92 | 16.59 |
|  | $\begin{array}{r} 18 \cdot 97 \\ 4 \cdot 14 \\ 31 \cdot 88 \end{array}$ | $\begin{array}{r} 19 \cdot 91 \\ 3 \cdot 60 \\ 37 \cdot 40 \end{array}$ | $\begin{array}{r} 16 \cdot 15 \\ 3 \cdot 11 \\ 30 \cdot 37 \end{array}$ | $\begin{array}{r} 14 \cdot 29 \\ 2 \cdot 69 \\ 24 \cdot 83 \end{array}$ | $\begin{array}{r} 14 \cdot 67 \\ 2 \cdot 34 \\ 22 \cdot 12 \end{array}$ | $\begin{array}{r} 16 \cdot 41 \\ 2.15 \\ 18 \cdot 39 \end{array}$ | $\begin{array}{r} 19 \cdot 58 \\ 3.55 \\ 31.63 \end{array}$ | 19.24 2.64 23.05 |
| Total (ereals . | 54.99 | 60.91 | 49.63 | 41.81 | $39 \cdot 13$ | 36.95 | 54.76 | $44 \cdot 93$ |
| BeveragesTea Coffee and cocoa drinks | 9.57 4.75 | 9.72 4.92 | 6.84 3.01 | 6.07 2.58 | 5.33 1.96 | 4.84 1.64 | 8.08 $3 \cdot 40$ | $6 \cdot 58$ $2 \cdot 36$ |
| Total Beverages ... | 14.32 | 14.64 | 9.85 | 8.65 | $7 \cdot 29$ | $6 \cdot 48$ | 11.48 | 8.94 |
| Miscellaneous | 9.73 | 11.73 | 8.91 | $7 \cdot 07$ | 6.13 | $4 \cdot 23$ | 8.88 | 5-61 |
| Total Expenditure... | $\begin{gathered} 310.91 \\ \text { s. d. d. } \\ (2511) \end{gathered}$ | $\left.\begin{array}{c} 341 \cdot 94 \\ \text { s. d. } \\ (28 \end{array}\right)$ | $\left.\left\lvert\, \begin{array}{rr} 262 & 94 \\ \text { s. } & \mathrm{d} \\ (21 & 11 \end{array}\right.\right)$ | $\left.\begin{array}{r} 224 \cdot 52 \\ \text { s. } \\ (18 \\ (18) \end{array} \right\rvert\,$ | $\begin{array}{r} 197 \cdot 35 \\ \text { s. d. } \\ (16 \\ (16) \end{array}$ | $\left[\begin{array}{r} 176.96 \\ \text { s. } \\ (14 \\ \hline \end{array}\right)$ | $\left.\begin{array}{\|cc\|} \hline 286 \cdot 87 \\ \text { s. } & d . \\ (23 & 11 \end{array}\right)$ | $\begin{gathered} 224-12 \\ \text { s. } \\ \text { (18 } \\ \hline \end{gathered}$ |

(a) Includes chips and crisps.
(b) Includes tomatoes.
(c) Includes canned and bottied.
(d) Includes rolls, muffins and crumpets. Sandwiches and fruit bread are included in "Other cereals".

## EFFECT OF CHILDREN ON EXPENDITURE

79. A special analysis has been made of the Survey's findings for 1952 with a view to measuring the effect of an additional child on the food expenditure of the household. As already described, the childless couples under 55 provide a group broadly comparable in age and income with the couples with different numbers of children. The adult element in the selected group may, therefore, be regarded as similar to the adult element in the households with children, and differences in food expenditure may be primarily attributed to the presence of children. By the method of least squares, a linear regression line was fitted to the average bousehold food expenditures of the selected group of childless households and the households with various numbers of children. The food expenditure then fell into two parts; the first could be treated as a constant corresponding to the adult element, and the second as a vaiiable directly proportional to the number of children. Since the increase in expenditure with number of children was approximately linear, the average increment attributable to each additional child was almost the same and could be isolated. The results show that in 1952 the average expenditure for the adult element was about 57 s . 3d. per week, and the addition for each child about 8s. 6d. Estimates of household food expenditure derived from these elements conform well with the observed values:-

TABLE 30
Household Food Expenditure: Computed Values for 1952

|  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |

80. These results do not mean that the cost of a child's food was only 30 per cent. of that of an adult at the same standard of living; for, in practice, of course, the adult standard did not remain constant at 28 s . 8 d . per head where there were children. This is a notional constant introduced in order to measure the actual increase in household expenditure when a child is added to the household. In fact, if the size of household increases while the family income does not, the adult standard of living falls, and part of the notional 57s. 3d. attributed to the adults was, no doubt, spent on the child, in addition to the increment of 8 s . 6 d . To establish true equivalent-adult scales, giving the cost of a child compared with the cost of an adult at the same standard of living, the effect of family income per head would have to be taken into account. ${ }^{1}$
[^2]The present analysis does provide, however, a description of the effect of childrer on a household when the addition of children is associated with a fall in the level of family income per head.
81. A similar analysis has been applied to expenditure on individual foods. and the results are shown in Table 31. Naturally there was some departure here from the strictly linear form; for example, the increase in household expenditure on fruit became relatively less with each additional child, while the increase for bread became relatively greater. The averages shown for the child increment give a fairly good indication of the position, but they probably under-estimate the difference between families with one child and those with several. Even so, the results are sufficiently striking. The addition of a child produced virtually no increase in household expenditure on fresh green vegetables, and only a 3 per cent. increase for fresh fruit. The 12 per cent. increase in expenditure on milk under-estimated the increase in consumption, as Welfare milk and school milk plays a larger part in the diets of the large families; the increase in the consumption of liquid milk only was estimated at 32 per cent. The average increase for cheese, eggs, meat and fish was only 12 per cent. The increase of 17 per cent. in expenditure on rationed frest meat indicated that the expenditure for a child was about one-third of that for an adult. Even for children under 5, this would suggest that the child's ration was not always fully taken up; but more than half the children were over 5 and, therefore, entitled to an adult ration. The increase for fish was only 1 per cent., possibly because children have a greater preference for other protein foods; there was a decrease of 4 per cent. for " other meat ", which included liver and other offal. The low expenditure on the "protective" foods was in marked contrast to the expenditure on the cheaper, more filling foods such as potatoes, cereal foods, fats and sugar. The increase in expenditure per child was 32 per cent. for new potatoes, 42 per cent. for old potatoes, 45 per cent. for National bread, 42 per cent. for fats, and 32 per cent. for sugar and preserves. The largest increase was 61 per cent. for oatmeal and other breakfast cereals; in this single case the expenditure for a child was higher than that for an adult. No doubt this was partly because milk could conveniently be given to the child in this way, and partly because a cereal dish is very quickly prepared. Even in the cereal group, the increase was confined to the cheaper foods, and did not extend, for example, to cakes and pastries. Another indication of the economic effect was the expenditure on coffee, a relatively expensive beverage consumed mainly by the better-off households; children do not normally drink it, and the adult couple decreased their expenditure by 5 per cent. for each child.

TABLE 31

## Domestic Food Expenditure per Household in 1952



TABLE 31-continued

|  | Observed average expenditure per household per week |  |  |  |  | Regression estimates |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Households with 1 male and 1 female adult and |  |  |  |  | Expenditure attributable to: |  | $\begin{gathered} \text { Child } \\ \text { as } \\ \text { per- } \\ \text { centage } \\ \text { of } \\ \text { couple } \end{gathered}$ |
|  | No other (Both adults under 55) | Children only |  |  |  |  |  |  |
|  |  | 1 | 2 | 3 | 4 or more | Adult couple | Each child |  |
|  | d. | d. | d. | d. | d. | d. | d. | $\begin{gathered} \text { Per } \\ \text { cent. } \\ 45 \\ 6 \\ 20 \end{gathered}$ |
| National bread ... | $30 \cdot 8$ | 40.9 | $48 \cdot 6$ | $64 \cdot 6$ | $95 \cdot 2$ | 27.9 | 12.5 |  |
| Other bread | 13.7 | $12 \cdot 7$ | 14.0 | $15 \cdot 1$ | $17 \cdot 0$ | $12 \cdot 7$ | 0.7 |  |
| Flour | $7 \cdot 2$ | $9 \cdot 3$ | 10.8 | 11.7 | $13 \cdot 8$ | $7 \cdot 6$ | 1.5 |  |
| Total bread and flour | $\left.\begin{array}{c} 51 \cdot 7 \\ \text { s. d. } \\ (4 \quad 3 \end{array}\right)$ | $\begin{gathered} 62 \cdot 9 \\ \text { s. } \\ \text { (5. } \\ \left(\begin{array}{l} 2 \end{array}\right) \end{gathered}$ | $\left.\begin{array}{c} 73 \cdot 4 \\ \text { s. d. } \\ (6 \end{array}\right)$ | $\left.\begin{array}{cc} 91 & -4 \\ \text { s. } & \text {. } \\ (7 & 7 \end{array}\right)$ | $\left(\begin{array}{c} 126 \cdot 0 \\ \text { s. } \mathrm{d} . \\ (10 \\ 6 \end{array}\right)$ | $\begin{gathered} 48 \cdot 2 \\ \text { s. d. } \\ (4 \quad 0) \end{gathered}$ | $\left.\begin{array}{cc} 14 \cdot 7 \\ \text { s. d. } \\ (1 & 2 \end{array}\right)$ | 31 |
| Biscuits ... | d. 23.9 | d. <br> 28.8 <br> 18. | ${ }_{32}{ }^{\text {d. }} 8$ | d. 34.5 | ${ }_{36.0}^{\text {d. }}$ | d. 25.3 | ${ }^{\text {d. }} 3$ | 13 |
| Cakes and pastries $\ldots$ | 31.0 | $34 \cdot 5$ | $32 \cdot 9$ | 35.0 | $34 \cdot 2$ | $32 \cdot 4$ | 0.7 | 2 |
| Oatmeal and other breakfast cereals | $6 \cdot 7$ | 10.0 | $13 \cdot 6$ | 18.7 | $23 \cdot 4$ | $6 \cdot 3$ | $3 \cdot 8$ | 61 |
| Other cereals ... | $8 \cdot 5$ | $12 \cdot 6$ | $14 \cdot 4$ | 16.0 | $17 \cdot 0$ | $9 \cdot 8$ | $2 \cdot 2$ | 22 |
| Total for cereal foods | $\left(\begin{array}{cc} 121 \cdot 8 \\ \text { s. d. } \\ (10 & 2) \end{array}\right.$ | $\left.\left\lvert\, \begin{array}{cc} 148 \cdot 8 \\ \text { s. } & d . \\ (12 & 5 \end{array}\right.\right)$ | $\left(\begin{array}{cc} 167 \cdot 1 \\ \text { s. } & d . \\ (13 & 11 \end{array}\right)$ | $\left.\left\lvert\, \begin{array}{c} 195 \cdot 6 \\ \text { s. } \\ (16 \\ 16 \end{array}\right.\right)$ | $\left(\begin{array}{c} 236 \cdot 6 \\ \text { s. d. } \\ (19 \\ \hline \end{array}\right)$ | $\left\{\begin{array}{r} 122 \cdot 0 \\ \text { s. } . \\ (10 \end{array}\right.$ | $\begin{gathered} 24.6 \\ \text { s. } \left.\begin{array}{c} \text { d. } \\ (2 \end{array}\right) \end{gathered}$ | 20 |
| Fats | d. 27.1 | ${ }_{\text {d. }}^{36} 8$ | $\stackrel{\mathrm{d}}{48.3}$ | ${ }_{60.5}^{\text {d. }}$ | $\xrightarrow{\text { d }}$ 7.3 | d. | ${ }_{11}{ }^{\text {d }} 0$ | 42 |
| Sugar and preserves | 23.9 | 31.5 | $39 \cdot 6$ | $46 \cdot 2$ | 57.2 | 24.0 | $7 \cdot 6$ | 32 |
| Coffer ... ... | $7 \cdot 1$ | $5 \cdot 4$ | $5 \cdot 8$ | $5 \cdot 2$ | 5.9 | $6 \cdot 4$ | $-\quad 0.3$ | - 5 |
| Tea .... ... | 19.4 | $20 \cdot 5$ | $24 \cdot 3$ | 26.6 | 31.0 | 18.6 | 2.7 | 14 |
| Cocoa drinks ... | $2 \cdot 8$ | $3 \cdot 6$ | $4 \cdot 5$ | $4 \cdot 6$ | $4 \cdot 5$ | $3 \cdot 0$ | 0.5 | 18 |
| Miscellaneous | $22 \cdot 6$ | $26 \cdot 1$ | $27 \cdot 7$ | $30 \cdot 2$ | 26.0 | $24 \cdot 1$ | 1.6 | 6 |
| Total food expenditure | $\begin{array}{r} 683.9 \\ \text { s. } \\ (57 \\ \hline \end{array}$ | $\left.\begin{array}{c} 788 \cdot 7 \\ \text { s. } \\ (65.9) \\ (65 \end{array}\right)$ | $\begin{gathered} 898 \cdot 0 \\ \text { s. } \left.\begin{array}{c} \text { d. } \\ (74 \\ \mathbf{7 1 0}) \end{array}\right) . \end{gathered}$ | $\left.\begin{array}{c} 986 \cdot 8 \\ \text { s. } \\ (82 \\ (82 \end{array}\right)$ |  | $\begin{gathered} 687 \cdot 1 \\ \text { s. } \left.\begin{array}{c} \text { d. } \\ (57 \\ \hline \end{array}\right) \end{gathered}$ | $\begin{gathered} 102 \cdot 5 \\ \text { s. d. } \\ (8 \quad 6) \end{gathered}$ | 15 |

82. While some of these features have been broadly known from previous studies of household composition, a quantitative analysis of this kind does, perhaps, present a more graphic picture of the differences in the pattern of food expenditure associated with the presence of children.

## ENERGY VALUE AND NUTRIENT CONTENT

83. The energy value and nutrient content of the average food consumption of bouseholds of different family composition are shown in Table 32. The estimates should be considered together with those in Table 33, which take into account nutritional requirements of households of different family composition.

TABLE 32
Energy Value and Nutrient Content of Domestic Food Consumption 1952 by Households with one Male and one Female Adult and varying Numbers of Children.
per head per day

|  | Households with 1 male and 1 fomale adult and |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { No } \\ & \text { Other } \end{aligned}$ | Children only |  |  |  | $\begin{aligned} & \text { Adoles- } \\ & \text { cents } \\ & \text { only } \end{aligned}$ | Adolescents and children |
|  |  | 1 | 2 | 3 | 4 or more |  |  |
| Energy value ... Cal. | 2,792 | 2,503 | 2,256 | 2,172 | 2,166 | 2,716 | 2,421 |
| Protein ... ... g. | 91 | 2, 79 | 70 | 2, 66 | 2,166 | 2,87 | 2, 75 |
| Animal protein ... g. | 45 | 40 | 35 | 32 | 29 | 42 | 33 |
| Fat ... ... ... g. | 108 | 98 | 88 | 84 | 81 | 102 | 88 |
| Carbohydrate ... g. | 364 | 327 | 295 | 288 | 295 | 362 | 333 |
| Calcium ... ... mg. | 1,199 | 1,106 | 997 | 956 | 932 | 1,117 | 1,004 |
|  | $15 \cdot 5$ | 1, 13.4 | 11-7 | 11-0 | $10 \cdot 7$ | 15.0 | 12.6 |
| Vitamin A (a) ... i.u. | 4,272 | 3,905 | 3,378 | 3,030 | 2,812 | 4,004 | 3,160 |
| Vitamin $\mathbf{B}_{1}(b) \quad . .$. mg. | 1.49 | 1-30 | 1-15 | 1-10 | 1-11 | 1.43 | 1-25 |
| Riboflavin ... ... mg. | 1.96 | 1.75 | 11.55 | 1.45 | $1 \cdot 38$ | 1.79 | 1.52 |
| Nicotinic acid ... mg. | $16 \cdot 4$ | ${ }_{59} 13$ | $11 \cdot 3$ | $10 \cdot 6$ | $10 \cdot 2$ | $14 \cdot 8$ | 12.4 |
|  | 64 170 | 59 | 50 140 | 44 | 43 | 60 152 | 49 135 |
| Vitamin D (a) ... i.u. | 170 | 155 | 140 | 137 | 155 | 152 | 135 |

(a) Excludes Welfare fish liver oil and vitamin A and D tablets.
(b) Allowances have been made for cooking losses according to Medical Research Council War Memorandum No. 14.
(c) Includes Welfare orange juice.
84. As would be expected, the intake per head per day of most nutrients decreased as the number of children in the household increased. The smaller requirements of children for all nutrients except calcium and vitamin $D$ account for some, but not all, of these differences, as shown in Table 33.

TABLE 33
Comparisom of Energy Value and Nutrient Content of Domestic Food Consumption 1952 with Standards based on the British Medical Association's Recommendations.

|  |  |  | Houscholds with 1 male and 1 female adult and |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | No other | Children only |  |  |  | Adolescents only | Adolescents and children |
|  |  |  | 1 | 2 | 3 | 4 or more |  |  |
| Enorgy value |  |  |  | $\begin{aligned} & \text { Per } \\ & \text { cent. } \\ & 105 \end{aligned}$ | Per cent. 105 | $\begin{gathered} \text { Per } \\ \text { cent. } \\ 101 \end{gathered}$ | Per cent. 99 | Per cent. 101 | Per cent. 96 | Per cent. 93 |
| Total protein | $\ldots$ | $\ldots$ | 124 | 112 | 102 | 96 | 95 | 100 | 90 |
| Calcium ... | ... | $\ldots$ | 135 | 116 | 102 | 95 | 90 | 110 | 94 |
| Iron . ${ }^{\text {a }}$ | ... | ... | 118 | 115 | 106 | 102 | 101 | 108 | 99 |
| Vitamin A | ... | ... | 157 | 167 | 158 | 149 | 145 | 158 | 147 |
| Vitamin $\mathrm{B}_{1}$ | ... | $\ldots$ | 141 | 140 | 130 | 129 | 131 | 127 | 121 |
| Riboflavin | ... | $\ldots$ | 121 | 121 | 113 | 109 | 104 | 104 | 96 |
| Nicotinic acid | $\ldots$ | ... | 156 | 139 | 129 | 123 | 121 | 131 | 119 |
| Vitamin C (a) | $\ldots$ | ... | 290 | 283 | 249 | 222 | 213 | 241 | 206 |

(a) See paragraph 49, footnote (1).
85. The most noteworthy point in Table 33 is the relatively poor position of the households with three or more children and with children and adolescents in the body-building nutrients, protein and calcium. This has been a constant finding in the Survey records, and, as Table 34 shows, between 1950 and 1952 intake compared with requirements has tended to decrease for all bousehold groups with children or with adolescents or with both. On the other hand the comparable percentages for childless households have remained almost unchanged. The energy value estimates have shown exactly the same trend.

TABLE 34
Chunges in the Comparison of Energy Value and Protein and Calcium Content of Domestic Food Consumption with Standards based on the Britist Medical Association's Recommendations: 1950 Compared with 1952.

|  |  |  | Households with 1 male and 1 female adult and |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | No other | Children only |  |  |  | Adolescents only | Adolescents and children |
|  |  |  | 1 | 2. | 3 | 4 or more |  |  |
| $\begin{gathered} \text { Energy value } \\ 1950 \\ 1952 \end{gathered}$ | $\cdots$ | $\ldots$ |  | 106 105 | 109 105 | 103 | 104 99 | 101 | 100 96 | $\begin{aligned} & 96 \\ & 93 \end{aligned}$ |
| Total protein 1950 1952 | $\ldots$ | $\ldots$ | 123 124 | 117 | 105 102 | 102 96 | 94 95 | 103 100 | $\begin{aligned} & 91 \\ & 90 \end{aligned}$ |
| $\begin{gathered} \text { Calcium } \\ 1950 \\ 1952 \end{gathered}$ | $\cdots$ | $\cdots$ | 136 135 | 120 116 | 106 102 | 102 95 | 92 | 114 110 | 94 94 |

86. When the sources of the energy value of the diet are compared, as in Table 35, it will be seen that between 1950 and 1952, the changes for all household types were similar. These changes appear to be almost entirely dependent on increases in the consumption of cereals and sugar and a decrease in that of fats for all household types.

TABLE 35
Percentage of Energy Value derived from Protein, Fat and Carbohydrate: 1952 Compared with 1950

|  |  |  | Households with 1 male and 1 female adult and |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | No other | Children only |  |  |  | Adolescents only | Adolescents and children |
|  |  |  | 1 | 2 | 3 | 4 or more |  |  |
| Protein |  |  |  | Per cent. | Per cent. | Per cent. | Per cent. | $\begin{aligned} & \text { Per } \\ & \text { cent. } \end{aligned}$ | Per cent. | Per cent. |
| Protein 1950 | $\ldots$ | ... | $13 \cdot 0$ | $12 \cdot 6$ | $12 \cdot 4$ | $12 \cdot 3$ | $12 \cdot 0$ | 12.8 | $12 \cdot 3$ |
| 1952 | $\ldots$ | . | $13 \cdot 0$ | $12 \cdot 6$ | $12 \cdot 4$ | 12.1 | $12 \cdot 0$ | $12 \cdot 8$ | $12 \cdot 4$ |
|  |  |  |  |  |  |  |  |  |  |
| 1950 1952 | $\ldots$ | $\cdots$ | $37 \cdot 9$ $34 \cdot 8$ | $37 \cdot 7$ $35 \cdot 0$ | $37 \cdot 6$ $35 \cdot 2$ | $36 \cdot 5$ 34.8 | $35 \cdot 7$ 33.6 | 35.9 33.8 | 34.9 $32 \cdot 6$ |
|  |  |  |  |  |  |  |  |  |  |
| $1950$ | $\ldots$ | $\cdots$ | $49 \cdot 1$ | $49 \cdot 7$ | $50 \cdot 0$ | $51 \cdot 2$ | 52.3 | $51 \cdot 3$ | 52.8 |
| 1952 | ... | $\cdots$ | $52 \cdot 2$ | $52 \cdot 4$ | 52.4 | $53 \cdot 1$ | $54 \cdot 4$ | $53 \cdot 4$ | $55 \cdot 0$ |

## APPENDIX A

## SURVEY TECHNIQUE AND COMPOSITION OF THE SAMPLE

1. An important change in technique was introduced into the National Food Survey in June 1951, and fully discussed in Appendix A of the Annual Report for 1951. No further change was introduced in 1952, so that a strict comparison is possible between 1952 and the last six months of 1951. For comparison with the first half of 1951, certain adjustments referred to below, are necessary.
2. The method of selecting the sample in 1952 remained the same; that is to say, households were selected by a random method from sixty Parliamentary divisions, stratified by region and town size. From time to time a constituency was replaced by another of the same type. During the year, the Survey was conducted in the following constituencies:

| Region | Constituency | Region | Constituency |
| :---: | :---: | :---: | :---: |
| Northern and East and West Ridings | Brighouse and Spenborough | London | Barking |
|  | Chester-le-Street |  | Battersea, N . |
|  | Durham |  | Chelsea |
|  | Middlesbrough, E. |  | Edmonton |
|  | Rother Valley |  | E. Surrey |
|  | Sedgefield |  | Finchley |
|  | Sheffield, Heeley |  | Lambeth, Vauxhall |
|  | Shipley |  | Richmond, Surrey Stepney |
|  |  |  | Wandsworth, Central |
| North Western | Bolton, W. <br> Darwen |  | Watford Willesden, W. |
|  | Ince |  |  |
|  | Liverpool, Wavertree | South Eastern and Southern | Ashford |
|  | Manchester, Wythenshawe |  | Buckingham |
|  | Preston, N. |  | Chichester |
|  | Wallasey |  | N. Dorset |
|  |  |  | New Forest |
| North Midlands and Eastern | Belper |  | Portsmouth, W. |
|  | Derby, N . | South Western | Bristol, Central |
|  | Gainsborough |  | Bristol, S. |
|  | Hitchin |  | Bristol, S.E. |
|  | Lincoln |  | Taunton |
|  | Luton |  | Torquay |
|  | Mansfield ${ }^{\text {Mid-Bedfordshire }}$ |  | Torrington |
|  | Saffron Walden | Wales ... | Aberdare |
|  |  |  | Cardiff, N. |
| Midlands | Birmingham, Aston |  | Gower |
|  | Birmingham, Hall Green Birmingham, Sparkbrook |  | Llanelly Newport |
|  | Birmingham, Stechford |  |  |
|  | Burton | Scotland | Berwick and East Lothian |
|  | Coventry, S. |  | Dundee, W. |
|  | Ludlow <br> The Wrekin |  | Edinburgh, Pentlands |
|  |  |  | Kirkcaldy |
|  |  |  | Midlothian and Peebles |
|  |  |  | Renfrewshire, E. |
|  |  |  | Roxburgh and Selkirk |

3. Housewives were asked to record food purchases for a week, together with " free" food obtained during the week from allotments and gardens or from an employer. They also recorded withdrawals from stock of such home-produced foods as are stored in quantity, namely:-
Potatoes
Beans
Bottled fruit and tomatoes
Preserves
Apples and pears
Eggs

During the first half of 1951 , larder stocks had also been weighed at the beginning and end of the Survey week, and withdrawals from stock were added to purchases and free food to estimate consumption. As previously described ${ }^{\text {² }}$ ) the procedure was found to distort the normal pattern of purchases, and it was discontinued. In comparing 1952 with the first half of 1951, therefore, the value of withdrawals from stock should be added to expenditure in the earlier period to give figures comparable to expenditure alone in 1952. This adjustment is satisfactory for total expenditure but not necessarily for each individual food.
4. The numbers of households and persons surveyed in each quarter of 1952 are shown in Table 1. An average of 3,109 households per quarter was achieved, with a mean household size of $3 \cdot 32$ persons, which was fairly constant during the year.

TABLE 1
Composition of the Sample 1952

|  | 1st Quarter | 2nd Quarter | 3rd Quarter | 4th Quarter | Year |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Urban Households |  |  |  |  |  |
| Households . | 2,618 | 2,629 | 2,405 | 2,161 | 9,813 |
| Persons ... ... | 8,633 | 8,701 | 8,122 | 7,139 | 32,595 |
| Persons per house- hold $\ldots$ | $3 \cdot 30$ | $3 \cdot 31$ | $3 \cdot 38$ | $3 \cdot 30$ | $3 \cdot 32$ |
| Rural Households |  |  |  |  |  |
| Households | 726 | 722 | 708 | 469 | 2,625 |
| Persons ... ... | 2,390 | 2,445 | 2,328 | 1,549 | 8,712 |
| $\begin{aligned} & \text { Persons per house- } \\ & \text { hold } \ldots \end{aligned}$ | $3 \cdot 29$ | $3 \cdot 39$ | $3 \cdot 29$ | $3 \cdot 30$ | $3 \cdot 32$ |
| All Households |  |  |  |  |  |
| Houscholds | 3,344 | 3,351 | 3,113 | 2,630 | 12,438 |
| Persons ... | 11,023 | 11,146 | 10,450 | 8,688 | 41,307 |
| Persons per house- hold $\ldots$ | $3 \cdot 30$ | $3 \cdot 33$ | $3 \cdot 36$ | $3 \cdot 30$ | $3 \cdot 32$ |

(1) Domestic Food Consumption and Expenciture, 1951: H.M.S.O., 1953, Appendix A.

5. As before, the sample was divided into social classes, based on the gross income of the head of the household. Table 2 shows the distribution by social class and household composition in 1952. Since 1951, there appears to have been a steady shift upwards in income grade: Classes $A$ and $B$ increased from 6.8 per cent. and 24.0 per cent. of the total households in the second half of 1951 to 8.4 per cent. and 26.8 per cent. in 1952, while Class C declined from 45.6 per cent. to 40.0 per cent. These changes reflected changes in the level of money income. The proportion of households in Class $D$, which contained many households without an earner, remained almost unchanged. The average size of household continued to increase slightly in the higher income groups and to fall in Class D. This tendency was a further indication that some households in Class $C$ had moved up the income scale; the average size of household, formerly highest in this class, became highest in Class B. The continuing tendency for money income to rise has made it necessary to reconsider the basis of comparison, and revised income scales were introduced in 1953. The average household composition of each social class is shown in Table 3.

TABLE 3
Household Composition of Social Classes 1952

|  | Social Class |  |  |  |  | $\underset{\text { All }}{\text { Anouseholds }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | A | B | C | D |  |  |
|  |  |  |  | $\begin{aligned} & \text { Excluding } \\ & \text { O.A.P. } \end{aligned}$ | O.A.P. |  |
| Percentage of total persons in | Per cent. | Per cent. | Per cent. | Per cent. | Per cent. | Per ceat. |
| each soclal Class: |  |  |  |  |  |  |
| Adults, female | $35 \cdot 5$ | $31 \cdot 3$ | $31 \cdot 9$ | 49.0 | $66 \cdot 7$ | 35.6 |
| Adults, male ... | $30 \cdot 2$ | 29.9 | 31.6 | $31 \cdot 1$ | $32 \cdot 4$ | 31.0 |
| Adolescents (a) | 7.6 | $7 \cdot 8$ | $9 \cdot 4$ | $7 \cdot 3$ | 0.2 | $8 \cdot 1$ |
| Children (b) ... | 26.7 | 31.0 | $27 \cdot 1$ | $12 \cdot 6$ | 0.7 | $25 \cdot 3$ |
| Average number in |  |  |  |  |  |  |
| EACH HOUSEHOLD: |  |  |  |  |  |  |
| Adults ... ... | $2 \cdot 28$ | $2 \cdot 24$ | $2 \cdot 31$ | $2 \cdot 20$ | 1.52 | $2 \cdot 21$ |
| Adolescents ... | $0 \cdot 26$ | $0 \cdot 28$ | 0.34 | $0 \cdot 20$ |  | 0.27 |
| Children ... | 0.93 | 1-14 | 0.99 | 0.35 | $0 \cdot 01$ | 0.84 |

(a) 14 years to 20 years inclusive
(b) Under 14 years
6. The analysis by type of family shown in Table 2 follows the usual method of classifying in detail those households with one man and one woman with varying numbers of children and adolescents. Such households continued to comprise 61 per cent. of the total sample, if Old Age Pensioner households are included in the two-adult group, or 58 per cent. if they are excluded. The changes in class structure already described were reflected in the proportions of each household type in different income grades. Classes A and B together contained 41 per cent. of the households with one man and one woman, compared with 45 per cent. in Class C; in 1951 the respective proportions were 36 and 52 per cent. The change among households with other combinations of adults was smaller. A comparison is given in Table 4.

TABLE 4
Household Composition of Social Classes_July to December 1951, compared with 1952

|  | July-December 1951 |  |  | 1952 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Classes <br> $A$ and $B$ | Class |  | Classes <br> A and B | Class |  |
|  |  | C | D |  | C | D |
|  | Per cent. | Per cent. | Per cent. | Per cent. | Per cent. | Per cent. |
| One male and one female adult with: |  |  |  |  |  |  |
| no other | 28 | 44 | 28 | 29 | 38 | 33 |
| 1 child ... ... ... | 41 | 57 | 2 |  | 47 | 3 3 |
| 2 children 3 ... ... ... | 43 | 55 | 2 | 52 | 46 | 2 |
| 3 children ... ... ... | 44 | 54 | 2 | 50 | 49 | 1 |
| 4 or more children ... ... | 34 | 62 | 4 | 46 | 51 | 3 |
| Adolescents only .... | 34 | 56 58 | 10 | 40 | 51 | 9 |
| Adolescents and children | 38 | 58 | 4 | 43 | 52 | 5 |
| Other households | 23 | 35 | 42 | 26 | 32 | 42 |

7. The change was marked among households with children only. Those with one, two or three children became more numerous in Classes A and B than in Class C, and among those with four or more children, the proportion in Class C fell from 62 to 51 per cent.
8. As before the demographic characteristics of Classes $\mathbf{A}, \mathrm{B}$ and $\mathbf{C}$ were not dissimilar, while Class $\mathbf{D}$ differed widely from the others. It contained very few classified households with children or adolescents, and the bulk of the households were either childless couples or fell in the unclassified group. The average size of household, even excluding Old Age Pensioner households, was only 2.75 persons; 80 per cent. of these persons were adults, in the ratio 50 per cent. women and 30 per cent. men, whereas in the other classes men and women were nearly equal in numbers.

## APPENDIX B

## MEALS EATEN OUTSIDE THE HOME IN 1952

1. The main purpose of the National Food Survey is to study the pattern of the diet in the home. In order to provide a complete picture of the nutritional level of the population, meals outside the home would have to be studied in similar detail. This is beyond the scope of the resources at present available, but an attempt has been made to find out what types of household are most affected and to assess the general effect of meals out on the household diet.
2. The Survey collects certain information on meals out in order to calculate the proportion of nutrient requirements represented by the domestic diet. It is assumed that the normal pattern is that of four meals a day (breakfast, dinner, tea and supper), or 28 meals a week. The number and type of meals eaten away from home by each member of the household are recorded in the log-book, and these, deducted from the total meals, give the " net balance" of meals at home. The simple addition of meals
out would be misleading, owing to the wide difference in type of meal. The following weights are therefore given to the different meals, according to their relative nutritional importance.

|  |  |  |  |  |  |  | per day |
| :--- | :---: | :--- | :--- | :--- | :--- | :--- | :---: | per week

Packed meals such as sandwiches provided by the housewife for outside consumption are not counted as meals out.
3. These weights have been adopted to produce an index of meals taken at home for each household. If the total for each person is taken as 100 , each breakfast, dinner, tea or supper eaten out by that person is represented by a deduction of 4,5 , 3 or 2, and the remainder gives the " net balance" of meals eaten at home by that person. These balances are added together for all members of the household, and the total divided by the number of persons in the household. The result gives an index of meals at home during the Survey week for the household. An adjustment is made for visitors taking a meal in the household, such meals being given the same weights and added to the total instead of being deducted. This means that a visitor's meal cancels a similar meal taken out. This adjustment, while necessary for the normal nutrient calculations of the Survey, means that the index slightly underestimates the proportion of meals out; in households with many visitors, the index may rise above 100. The distortion is not regarded as serious, as the index does not purport to be a precise measure but an indication of comparative levels.
4. Moreover, according to the definition used in the Survey, a person does not count as a member of the household unless he takes 16 or more meals at home; if he takes less than this he is recorded as a visitor. The Survey is designed as a study of domestic food consumption and expenditure, for the majority of the population take their meals at home. A further limitation is that sweets, alcoholic and soft drinks, and snacks and ice cream consumed outside the home are not included, and these may be of some importance nutritionally.
5. It is not possible to distinguish meals taken out for social reasons from those taken in connection with work, but one class of meals is so important that it merits special attention-namely, school dinners. A special analysis of the uptake of school dinners has therefore been made, together with a similar analysis for school milk. This will be found in Appendix $\mathbf{C}$.

## Meals out by All Households and by Social Class

6. Social class differences and national averages are summarised in Table 1. Nearly half of all households took no meals out, and a further one-fifth took less than 5 per cent. of their meals out. In interpreting these results, it should be remembered that 5 per cent. represents one dinner per week for each member of the household or its equivalent in smaller meals (for example, one tea and one supper). Only 3 per cent. of the total took more than 20 per cent. of their meals out; this would be equivalent to four dinners per person per week. There was a marked class gradient; 76 per cent. of old age pensioner households took no meal out, for the rest of Class $D$ the proportion was 56 per cent., and the proportion declined through Classes $\mathbf{C}$ and B to only 32 per cent. for Class A. Among households taking some meals out, the class gradient became steeper as the proportion of meals out increased; 16 per cent. of Class A took over 15 per cent. of their meals out, while only 4 per cent. of old age pensioners did so and between 7 and 9 per cent. of the intermediate classes.
7. There was, as might be expected, some association between income and the proportion of meals out even within social classes. Estimates of total family income were obtained for 87 per cent. of the sample, although some of these had to be imputed
from the details of cocupation furnished by informants. They are considered to be sufficiently reliable for the comparative purposes of this Appendix. (See paragraphs 54-56 of Report.)

Estimated net family income per person is shown in Table 1 for households taking different proportions of meals out, and apart from old age pensioners those taking a substantial number of meals out had a higher income per head than those taking only a few. In all classes, income per head rose slightly among those taking no meal out, probably because this group included a higher proportion of childless households.

TABLE 1
A. Proportion of Households taking Meals outside the Home by Social Class; and
B. Estimated net Family Income per person per week of these Households percentage of households

|  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

8. Similar analyses are made in Tables 2 and $\mathbf{3}$ for households of different composition. Among households without children, the presence of adolescents was associated with a larger number of meals out, especially at the 6 to 10 per cent. level; this was probably because most adolescents were either at school or working. The type of household taking most meals at home was that containing one man and one woman only, which is known to contain a high proportion of elderly and retired people, even when old age pensioners are excluded. This group showed a particularly marked association of income per person with meals out, no doubt partly because households without an earner have a relatively low income and tend to eat at home. But in any case variations in income per person will be greater for small households.

TABLE 2
A. Proportion of Honseholds without Children taking Meals outside the Home, by Household Composition
B. Estimated net Family Income per person per week of these Households

|  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

9. Among households with children, there was little difference between households with different numbers of children, and the pattern was similar to that of households with adolescents. School meals played a large part in determining this pattern and as school meals were taken by all social classes the association of meals out with income was less marked than in childless households. The highest proportion of meals out was found among households containing both children and adolescents.

TABLE 3

## A. Proportion of Honseholds with Children taking Meals outside the Home, by Household Composition

B. Estimated net Family Income per person per week of these Households

10. In Tables 4 and 5 a two-way analysis is shown, by social class within each household type. The social class effect was particularly noticeable for households containing one man and one woman only; only 30 per cent. of the Class A households in this group took no meal out, compared with 84 per cent. of old age pensioners and 70 per cent. of other class D households. Class differences were also noticeable in households containing one man and woman and adolescents, but this is a small group and the results are therefore less reliable. There was less difference for other combinations of adults and adolescents. There were much smaller class differences for households with children, both those with one man and one woman and those with other combinations of adults. Class $\mathbf{A}, \mathrm{B}$ and $\mathbf{C}$ showed a very similar pattern. The highest level of meals out was found among those in Class A with one man and one woman with both children and adolescents. The levelling effect of children on the pattern of meals out is clearly apparent from a comparison of the summaries, given in Tables 4 and 5 , for all households without children and all households with children. The distribution of households of different composition within social classes is shown in Appendix A, Table 2.

TABLE 4
Proportion of Meals eaten outside the Home by Social Class and Family Composition: Households without Children


TABLE 5
Propertion of Meals eaten ontside the Home by Social Class and
Family Composition: Households with Children

| Social Class |  |  |  | perce | ge of ho | cholds |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | A | B | C | D |  | $\begin{gathered} \text { All } \\ \text { classes } \end{gathered}$ |
|  |  |  |  | $\begin{aligned} & \text { Excluding } \\ & \text { O.A.P. } \end{aligned}$ | O.A.P. |  |
| Households with one male and one female adult and one or more children taking: |  |  |  |  |  |  |
| no meal out ... $\ldots$ | 30 | 38 | 42 | 46 | - | 39 |
| 1-5 per cent. meals out | 22 | 23 | 22 | 16 | - | 23 |
| 6-10 per cent. meals out | 25 | 20 | 19 | 19 | - | 20 |
| 11-15 per cent. meals out | 13 | 11 | 10 | 9 | - | 10 |
| over 15 per cent. meals out | 10 | 8 | 7 | 10 | - | 8 |
| Total | 100 | 100 | 100 | 100 | - | 100 |
| Households with one male and one female adult with children and adolescents taking: |  |  |  |  |  |  |
| no meal out ... 1 . 5 per cent. meals out | 14 29 | 28 | 39 | 31 31 | - | 33 25 |
| 6-10 per cent. meals out | 12 | 23 | 23 | 19 | 二 | 22 |
| 11-15 per cent. meals out | 23 | 13 | 12 | 17 | - | 13 |
| over 15 per cent. meals out | 22 | 9 | 5 | 2 | - | 7 |
| Total | 100 | 100 | 100 | 100 | - | 100 |
| Other combinations of adults with children (with or without adolescents) taking: |  |  |  |  |  |  |
| no meal out ... ... | 41 | 38 | 39 | 38 | - | 39 |
| 1-5 per cent. meals out | 22 | 26 | 28 | 23 | - | 24 |
| 6-10 per cent. meals out | 22 | 20 | 17 | 19 | - | 18 |
| 11-15 per cent. meals out | 6 | 9 | 10 | 11 | - | 11 |
| over 15 per cent. meals out | 9 | 7 | 6 | 9 | - | 8 |
| Total | 100 | 100 | 100 | 100 | - | 100 |
| All households with children taking: |  |  |  |  |  |  |
| no meal out ... ... | 31 | 37 | 41 | 39 | - | 38 |
| 1-5 per cent. meals out | 23 | 24 | 24 | 22 | - | 24 |
| 6-10 per cent. meals out | 23 | 20 | 19 | 19 | - | 20 |
| 11-15 per cent. meals out | 12 | 11 | 10 | 11 | - | 11 |
| over 15 per cent. meals out | 11 | 8 | 6 | 9 | - | 7 |
| Total ... | 100 | 100 | 100 | 100 | - | 100 |

## The Effect of Outside Meals on Domestic Consumption

11. In addition to an analysis of the incidence of outside meals among different types of household an attempt has been made to measure the effect on household food consumption and expenditure. Only by considerable and complex analysis could all the records for 1952 be examined to provide results covering the whole sample. As a shorter method of assessing the effect of outside meals, it was decided to limit the analysis to certain comparable groups of households, one group taking some meals out and the other taking no meal out, excluding households in which visitors' meals exceeded outside meals. Class C was selected as being large enough to provide adequate sub-groups. Two pairs of samples were drawn from households in Class C containing at least one earner; one pair of samples consisted of households of one man and one woman only, and the other households with one man, one woman and two children. The two samples from each household type were matched in respect of other relevant variables, such as age distribution, nutrient requirements, and family income, so that differences in the household diet could be attributed to outside meals.
12. Taking first the households with two adults only, one selected group took no -meals out and the other took an average of 6.9 per cent. of their meals out. The following differences were found in food expenditure and in consumption in terms of certain nutrients:-


The variations between the percentages are within the sampling error; the results therefore suggest that for these households the reduction in expenditure and in nutrient value of the domestic diet when outside meals are taken is of the same order as the proportion of outside meals. The average number of calories per penny of domestic food expenditure was 65 for both groups.
13. The results for households with two children lead to the same conclusion. The two selected groups took no meal out and 8.9 per cent. of meals out respectively, and the differences in expenditure and consumption were:

| Food expenditure per head per week |  |  |  | ... | $\ldots$ | $\ldots$ | $\ldots$ | per cent. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $8 \cdot 3$ |  |  |  |
| Nutrient value of purchased food: |  |  |  |  |  |  |  |  |
| Calories | ... | ... | $\ldots$ |  | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | 9.9 |
| Protein | ... | $\ldots$ | ... |  | $\ldots$ | $\ldots$ | $\ldots$ | ... | $8 \cdot 4$ |
| Calcium |  |  | .. | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ | 7.0 |
| Riboflavin ... |  |  | ... | $\ldots$ | $\cdots$ | ... | $\cdots$ | $6 \cdot 2$ |

Again the variations in the percentages were within the sampling error; the average number of calories per penny was 76 for the first group and 75 for the second. Details of the sample are shown in Table 6.
14. These conclusions provide some confirmation of the normal practice adopted in the analyses of the National Food Survey. In these the calculation of nutrient intake as a percentage of requirements is made after the requirements have been reduced to allow for meals eaten outside the home, the nutritive importance of such meals being assessed as described above (paragraph 2). It is assumed in following this procedure that the outside meal has the same nutritive value as the corresponding meal at home; and these results suggest that the assumption is justified.

TABLE 6
Effect of Outside Meals in Samples of Households in Class C

\begin{tabular}{|c|c|c|c|c|}
\hline \multirow[t]{4}{*}{} \& \multicolumn{4}{|c|}{Households containing} \\
\hline \& \multicolumn{2}{|l|}{One man and one woman} \& \multicolumn{2}{|l|}{One man and one woman with two children} \\
\hline \& \multicolumn{2}{|l|}{Proportion of meals out} \& \multicolumn{2}{|l|}{Proportion of meals out} \\
\hline \& Nil \& \[
\begin{gathered}
6.9 \\
\text { per cent. }
\end{gathered}
\] \& Nil \& \[
\begin{aligned}
\& 8 \cdot 9 \\
\& \text { per cent. }
\end{aligned}
\] \\
\hline \begin{tabular}{l}
No. of households \\
Estimated net family income per week
\end{tabular} \& \[
\begin{aligned}
\& 279 \\
\& £ 6 \cdot 6
\end{aligned}
\] \& \[
\begin{aligned}
\& \hline 211 \\
\& £ 7 \cdot 0
\end{aligned}
\] \& \[
\begin{aligned}
\& 122 \\
\& £ 7 \cdot 0
\end{aligned}
\] \& \[
\begin{aligned}
\& 122 \\
\& £ 7 \cdot 1
\end{aligned}
\] \\
\hline \begin{tabular}{l}
COMPOSTIION OP HOUSEHOLDS \\
Adult males under 40 Adult males over 60 Adult males, sedentary Adult males, active Children aged 0-1 Children aged 1-4 Children aged 5-13 Proportion of houscholds with two earners
\end{tabular} \& \begin{tabular}{c} 
per cent. \\
10.0 \\
28.3 \\
17.6 \\
27.2 \\
\hline- \\
\hline
\end{tabular} \& per cent.
10.4
33.7
22.8
19.9
-
-
20.4 \& per cent.
75.4
0.8
10.7
30.4
7.8
44.2
48.0
9.1 \& per cent.
\(71 \cdot 3\)
\(0 \cdot 8\)
\(10 \cdot 7\)
\(31 \cdot 2\)
\(8 \cdot 2\)
\(44 \cdot 2\)
\(47 \cdot 6\)
6.6 \\
\hline \begin{tabular}{l}
Domestic food expenditure per head per week ... ... ... \\
Nutrient value of purchased food per head per day: \\
Calories \\
Calcium \\
Protein ...
\end{tabular} \& 313 d.

2,918
1,253
$\mathbf{9 6}$
1.99

$\mathbf{6 5}$ \& \[
$$
\begin{gathered}
\text { 292d. } \\
\\
2,706 \\
1,139 \\
88 \\
1 \cdot 80 \\
65
\end{gathered}
$$

\] \& \[

$$
\begin{gathered}
215 \mathrm{~d} . \\
\\
2,337 \\
981 \\
71 \\
1 \cdot 47 \\
76
\end{gathered}
$$

\] \& \[

$$
\begin{gathered}
197 \mathrm{~d} . \\
2,105 \\
912 \\
64 \\
1 \cdot 38 \\
75
\end{gathered}
$$
\] <br>

\hline
\end{tabular}

## APPENDIXC

## THE INCIDENCE OF SCHOOL MEALS AND SCHOOL MILK

1. The general effect on the diet of meals outside the home has been discussed in Appendix B. It was not found possible to distinguish between meals taken out for social reasons and other meals; but, as already stated, school meals are of such importance that they merit special attention. Accordingly a special analysis of the uptake of school meals has been made, together with a similar analysis for school milk.
2. Log books of the National Food Survey were analysed to provide information on the use of school meals and school milk facilities by households in different social classes and of different composition. Of the log books selected, 774 were collected in January and February and 568 in September and October 1952. The periods were chosen to avoid school holidays (including half-term holidays). The 1,342 selected households contained:-

> 712 children aged $5-13$ inclusive
> 54 children aged 14-2, described as " at school "
> 38 children aged 15-20,

804 school attenders aged 5 or over.
In addition there were 468 children under 5 , but it is not known how many of these attended school; 20 of them, however, had school milk or school meals. There were 235 persons aged $15-20$ whose occupation was not recorded as "at school".
3. On the assumption that each person over 5 described as a schoolchild attended school on 5 days during the survey week, the average take-up of school milk may be estimated from the survey data as 78.5 per cent., and of school meals as 44.1 per cent. According to returns sent to the Ministry of Education and the Scottish Education Department, about 84 per cent. of children attending school in February and October 1952 took school milk, and about 49 per cent. took school meals. The National Food Survey results made no allowance for any children of school age who may have been absent from school during the survey week; and the sample included children attending private schools. On the other hand, the returns sent to the Education Departments included children under 5 attending school; and they related only to single days (not the same for each school) in the selected months. In view of these differences in method and coverage, no precise reconciliation between the two sets of figures is practicable, but the measure of agreement attained is considered satisfactory. Sample surveys of Ministry catering returns for the two 16 -week periods ended 19th April and 29th November, 1952 gave an estimate of $\mathbf{3 . 2 4}$ million meals served daily in school canteens, feeding centres and nurseries. This represents 0.474 of a meal per school attender per day or, alternatively, 0.282 of a meal per child aged $0-14$ years. The corresponding National Food Survey results are in satisfactory agreement with these figures, being 0.441 of a meal per school attender and 0.288 of a meal per child aged $0-14$ years. There is good reason, therefore, to believe that the picture provided by the present Survey analysis is a representative one.
4. The variables analysed were the number of school meals eaten, and of school milk issues taken, per school attender per day. On the assumptions stated above, these figures may also be interpreted as the percentages taken up, if the decimal point is simply moved two places to the right. Social class differences, shown in Table 1. were not statistically significant. Approximate standard errors are given in brackets.

TABLE 1
Uptake of School Meals and School Milk by Social Class

| Social class |  |  |  |  |  | No. of school attenders aged 5 or more | Average milk issues taken per school attender per day | Average school meals eaten per school attender |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| A | $\ldots$ | $\ldots$ | $\ldots$ | $\ldots$ |  | 49 | . 79 (.06) | .50 (.07) |
| B | ... | ... |  |  |  | 291 | . 80 (.02) | .45 (.03) |
| C | $\ldots$ | $\ldots$ | $\cdots$ |  |  | 403 | . 78 (.02) | . 41 (.02) |
| D | ... | ... | ... |  | ... | 61 | .75 (.06) | .57 (.06) |
| All households |  |  | $\ldots$ | $\ldots$ | $\ldots$ | 804 | .785 (.015) | . 441 (.018) |

5. An analysis by the composition of the household to which the schoolchild belonged reveals differences which exceed the customary 5 per cent. level of statistical significance. The results are as follows (approximate standard errors in brackets):-

TABLE 2
Uptake of School Meals and School Milk by Household Composition

| Household Composition | No. of school attenders aged 5 or more | Average milk issues taken per school attender per day | Average school meals eaten per school attender per day |
| :---: | :---: | :---: | :---: |
| One man, one woman and |  |  |  |
| 1 child ... ... ... | 74 | .74 (.05) | .32 (.06) |
| 2 children ... ... ... | 178 | .83 (.03) | . 45 (.04) |
| 3 children ... ... ... | 95 | . 84 (.04) | . 44 (.05) |
| 4 or more children | 65 | .87 (.04) | . 45 (.06) |
| Adolescents only ... ... ... | 16 | . 47 (-12) | -40 (-12) |
| Adolescents and children $\ldots$ | 190 | . 76 (.03) | . 44 (.04) |
| Other households containing school attenders | 186 | . 76 (.03) | - 49 (.04) |
| All school attenders ... ... | 804 | . 785 (.015) | .441 (.018) |

6. These findings suggest that families with one child made rather less use of the school milk and meals facilities than families with two or more children. The most marked variation, however, was caused by the reluctance of adolescents to take school milk, as shown in Table 3.

TABLE 3
Uptake of School Meals and School Milk by Age of Child

| Age group |  |  | No. of school <br> attenders | Average milk <br> issues taken per <br> school attender <br> per day | Average school <br> meals eaten per <br> school attender <br> per day |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $5-13$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | 712 | $.82(.014)$ |
| 14 | $\cdots$ | $\cdots$ | $\cdots$ | $.44(.02)$ |  |  |
| 15 or more | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | 34 | $.63(.07)$ |

7. Apart from this tendency for school children aged 14 and over to forgo their milk issue, the take-up of school milk and school meals was much the same for all social classes and did not vary widely with the composition of the household. The benefit derived by a household group from the school milk and school meals services therefore depended mainly upon the numbers attending school from each household, which are shown in Table 4. The average weekly benefit per household is shown in Table 5.

TABLE 4
Distribation of School Children

|  | No. of children aged 0-4 per household | No. of school attenders aged 5 or over per household | $\begin{gathered} \text { Household } \\ \text { size } \end{gathered}$ | Percentage of persons (aged 5 or over) attending school |
| :---: | :---: | :---: | :---: | :---: |
| Social class: |  |  |  | per cent. |
| A $\quad$ B | 0.35 | 0.61 | 3.47 |  |
| B C | 0.46 | 0.85 | $3 \cdot 66$ | 23 |
| C | 0.45 | 0.69 | 3.64 | 19 |
| D | 0.08 | 0.18 | $2 \cdot 39$ | 8 |
| One man, one woman and |  |  |  |  |
| 1 child ... ... ... | 0.52 | 0.48 | $3 \cdot 00$ | 16 |
| 2 children ... ... | 0.92 | 1.08 | 4.00 | 27 |
| 3 children ... ... | 1.17 | 1.83 | 5.00 | 37 |
| 4 or more children ... | 2.00 | $2 \cdot 24$ | 6.24 | 36 |
| Adolescents only $\ldots$ |  | 0.27 | 3.23 | 8 |
| Adolescents and children | 0.33 | 1.94 0.38 | $5 \cdot 17$ 3.36 | 38 |
| Other households ... ... | 0.22 | 0.38 | $3 \cdot 36$ | 11 |
| All households | 0.35 | 0.60 | $3 \cdot 32$ | 18 |

TABLE 5
Average Benefit per Household containing Schoolchildren

8. In Table 5, the number of school meals and of school milk issues per household per week relate to the period when the schools were open (approximately 40 weeks in the year). Averaged over the year, the benefits per household are therefore about 23 per cent. less. The last column, showing the value of the school milk at $6 \frac{1}{2} \mathrm{~d}$. per pint, makes due allowance for this. Over the whole year the monetary value of school milk per household was estimated at approximately $5 \frac{3}{4} \mathrm{~d}$. per week for Social Class B (which contained the highest proportion of schoolchildren); 4d. and $4 \frac{1}{2} d$. per week respectively for Classes A and C and only 1d. per week for Class D, which contained relatively few children. For households with four or more children the value of the school milk taken was as much as 1 s .4 d . per week: for those with three children or both children and adolescents it was over 1s. per week, more than three times the average bencfit.
9. The relative importance of school milk in meeting the dietary requirements of schoolchildren in households of different types is indicated in Table 6, which shows (i) the percentage of requirements of schoolchildren met by school milk; (ii) the percentage of requirements of the whole household met from domestic sources including school milk, making the usual allowance of 10 per cent. for wastage.

TABLE 6
Energy Value and Nutrient Composition expressed as a Percentage of Requirements

|  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

10. The percentage of requirements met by school milk relates to all school attenders, whether or not they actually took school milk, and to the whole year including school holidays. If the calculation were restricted to those actually taking school milk and to the school term the percentages would, of course, be greater.
II. It must be borne in mind that the individual food consumption, and hence the total nutrient intakes, of the children attending school are not known. It is only possible to compare the nutrient contribution made by the school milk with the total estimated requirements of the schoolchildren considered separately. The percentage of requirements actually met from all sources can only be shown for the household as a whole, and it is not known whether the nutritional level is the same for the children as for the adult members of the household.
11. It was computed that about 10 per cent. of schoolchildren's requirements of calcium and riboflavin was being met by school milk; for the total protein the proportion was nearly 4 per cent., and for energy value $2 \frac{1}{2}$ per cent. In families with several children the proportions were somewhat greater.
12. It can, however, be inferred that, in households consisting of one man and one women with three children, the average diet of the whole household would have fallen below the standard in calcium, though we cannot say how the shortage would have been apportioned between individuals. In households with two children the calcium intake would have been marginal without school milk; in those with four
or more children the existing shortage would have been substantially greater. The percentage for protein illustrates the importance of school milk as a source of proteir in all types of household with children. The absence of school milk would also have caused a shortage of riboflavin in the household diet of families containing both children and adolescents. It should be noted that about 40 per cent. of children aged 5 to 14 live in households containing one man and woman with three or more children or with both children and adolescents.

## APPENDIX D

## EXPENDITURE ON SUBSIDISED FOODS

1. This Appendix differs from the remainder of the Report in that it relates to the financial year 1952-53, not to the calendar year 1952, since the trading accounts, from which unit subsidy rates are derived, cover the financial year. In general, the rate at which a subsidy is running will not be uniform throughout the year, and estimates of subsidy levels and unit subsidies relating to a shorter period may be subject to a considerable margin of error, especially where the supply of a commodity varies widely during the year. In particular it would be misleading to apply unit subsidy rates derived from the whole financial year to particular quarters, since the price increases resulting from the Budget were not fully effective until October. In previous years, changes in subsidy rates during the financial year had been smaller.
2. The greater part of the increase in the retail prices of subsidised foods in 1952-53 was attributable to a reduction in the subsidy level. On 16th March, 1952, the price of bread was increased by $1 \frac{1}{2} \mathrm{~d}$. per $1 \frac{3}{4} \mathrm{lb}$. loaf, and of flour by $1 \frac{1}{4} \mathrm{~d}$. per lb . The next stage of the " Budget operation" was on 15 th June, when the price of carcase meat was increased by an average of 4 d . per lb ., and increases were permitted on all teas subject to price control in order to eliminate the subsidy on tea. There was an increase of $\frac{1}{2} d$. per pint for milk on lst July. Finally, on 5th October sugar. cheese, bacon and rationed fats were all subjected to price increases, and tea was freed from rationing and price control. No further change took place in the controlled prices of subsidised foods until the decontrol of eggs at the end of the financial year.
3. In the following paragraphs the term "subsidised foods" relates to foods subsidised at any time during the financial year; namely, liquid milk, rationed cheese, rationed carcase meat, rationed bacon, hens' shell eggs, rationed fats, sugar, National bread, flour, potatoes, and tea. As tea was subsidised for one quarter only, the cash value of the subsidy for this quarter has been averaged over the year, but expenditure on tea has been included throughout in household expenditure on subsidised foods, for the sake of comparability. Potatoes have been included both to maintain comparability with 1951 and because the Ministry continued to incur a small trading loss, although the average value of this subsidy to the consumer was too small to be separately recorded in Tables 2 and 4.
4. The average weekly expenditure by all households on the subsidised foods in 1952-53 was 11s. 3d. per head, 2s. 4d. or 24 per cent. above the average for the preceding financial year. Expenditure on subsidised foods amounted to 53 per cent. of total food expenditure in 1952-53, compared with 49 per cent. in the previous financial year. Expenditure on non-subsidised foods increased during the year at a slower rate than expenditure on subsidised foods. The diversion of expenditure to these basic foods was greater than could be explained by price changes alone; it represented a real change in the pattern of consumption. For subsidised foods, expenditure more than kept pace with the increase in prices; for other foods, it tended to lag behind prices, although they rose less.
5. The cash value of the subsidy averaged approximately 1 s .11 d . per head per week for all households. Of this sum, 21 per cent. was accounted for by bread and flour, 22 per cent. by Welfare and school milk, 15 per cent. by full-price liquid milk, 12 per cent. by rationed fats and 10 per cent. by eggs. The cash value of the subsidy represented 17 per cent. of the expenditure on subsidised foods, and 9 per cent. of total domestic food expenditure.

## Expenditure on subsidised foods by homseholds of dififerent social class

6. From Tables 1 and 2 it will be seen that expenditure on subsidised foods did not vary greatly with social class. The highest average expenditure on those foods was recorded by the lowest income group (Old Age Pensioner households) who spent 11 s .5 d . per head per week on subsidised commodities. Class C recorded the lowest average expenditure of 10 s . 11d. These differences in expenditure, though small, were fairly constant and arose mainly from liquid milk, expenditure on which was highest at each end of the income scale, and from tea, purchases of which were highest in Old Age Pensioner households. Social class gradation was much more marked for expenditure on non-subsidised foods; hence the percentage of total food expenditure devoted to subsidised foods ranged from 45 per cent. in Class $A$ to 60 per cent. in the Old Age Pensioner group.
7. Because of the incidence of Welfare and school milk, the total cash value of the subsidies was greatest in those households containing the largest proportion of children and adolescents. Thus, Class B, in which children and adolescents represented 39 per cent. of the total persons obtained the highest subsidy benefit of approximately 2s. Od. per head per week. In Old Age Pensioners households, on the other hand, the subsidy averaged only 1 s .7 d . per head. Apart from milk, class differences in the cash value of the subsidy were significant for only two foods: bread and flour, for which purchases, and consequently the cash value of the subsidy, were greater in the lower income groups, and eggs, for which the subsidy was of somewhat greater cash benefit to Class A.

TABLE 1
Expenditure on Subsidised Foods by Households of Different Social Class, Financial Year 1952-53


TABLE 2
Proportional Distribution of Total Subsidies between Subsidised Foods in Households of Different Social Class, Financial Year 1952-53

| Social Class | A | B | C | D |  | $\underset{\text { households }}{\text { All }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
|  |  |  |  | Excluding O.A.P. | O.A.P. |  |
|  | Per cent. | Per cent. | Per cent. | Per cent. | Per cent. | Per cent. |
| Liquid milk: <br> Full price <br> Welfare and school | 17 | 14 | 14 | 18 | 22 | 15 |
|  | 23 | 27 | 23 | 11 | 1 | 22 |
| Cheese ... .. | 1 | 1 | 1 | 1 | 1 | 1 |
| Fats ... ... ... | 13 | 12 | 12 | 14 | 16 | 12 |
| Eggs... ... ... | 12 | 10 | 10 | 11 | 11 | 10 |
| Sugar ... ... | 3 | 3 | 3 | 3 | 4 | 3 |
| Carcase meat ... | 8 | 7 | 7 | 9 | 10 | 8 |
| Bacon ... | 7 | 6 | 7 | 8 | 8 | 7 |
| Bread and flour | 15 | 19 | 22 | 24 | 25 | 21 |
| Tea ... | 1 | 1 | 1 | 1 | 2 | , |
|  | 100 | 100 | 100 | 100 | 100 | 100 |

## Expenditure on sulbsidised foods by households of different compesition

8. Among households of one man and one woman with different numbers of children and adolescents, expenditure per head on both subsidised and unsubsidised foods decreased with an increase in the number of children in the household, but the gradient was much less steep for the subsidised foods. Childless couples spent 13s. 1d. per head per week on these foods, representing 49 per cent. of their expenditure on food; households with four or more children spent 8s. 11d. per head, 59 per cent. of their domestic food expenditure. On a per head basis, the childless households spent 47 per cent. more than households with four or more children on subsidised foods, and 120 per cent. more on non-subsidised foods. This difference between the two groups of commodities arose partly from the rationing system, under which a child's ration was equal to an adult's for most foods. So long as ration entitlements were taken up almost in full, this would tend to concentrate food expenditure in large families on the rationed foods, which were all subsidised.
9. The cash value of the subsidy was highest in households with four or more children at 2 s . 4 d . per head per week, 46 per cent. of which was accounted for by welfare and school milk. The subsidy value of welfare and school milk declined sharply with the number of children, the position being reversed for full price milk, of which the childless households bought two and a half times as much per head as the households with four or more children. Because of the considerable differences in size of family, it is important to compare the various subsidy benefits per household as well as per head. Thus, the number of persons varied from two in the childless households and 3.23 in households with adolescents to 5.15 in households with children and adolescents and 6.43 in families with four or more children. The average cash value of the subsidy, shown in Table 3, is seen to range from a minimum of 3 s . 6 d . for the childless couple to 14 s . 9d., or more than four times as much, for the households with four or more children.

TABLE 3
Expenditare on Subsidised Foods by Honseholds of Different Composition, Financial Year 1952-53
per week

|  | Households of 1 male and 1 female adult and |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No other | Children only |  |  |  | Adolescents only | Adolescents and children | All households |
|  |  | 1 | 2 | 3 | 4 or more |  |  |  |
|  | s. d. | s. d. | s. d. | s. d. |  | s. d. | s. d. |  |
| sidised foods: per head per household... | $\begin{array}{ll} 13 & 1 \\ 26 & 2 \end{array}$ | $\begin{array}{ll}11 & 3 \\ 33 & 9\end{array}$ | $\begin{array}{ll}10 & 2 \\ 40 & 8\end{array}$ | 9 46 46 | 8 8711 | $\begin{array}{ll}12 & 3 \\ 39 & 6\end{array}$ | $\begin{array}{ll}10 & 6 \\ 54 & 3\end{array}$ | 11 <br> 37 |
| As percentage of total food expenditure | 49 | 50 | 53 | 55 | 59 | 50 | 55 | 53 |
| Cash value of | s. d. | s. d. | s. d. | s. d. | s. d. | s. d. | s. d. | s. d. |
| sidy: <br> per head per household... | $\begin{array}{ll} 1 & 9 \\ 3 & 6 \end{array}$ | $\begin{array}{ll}2 & 2 \\ 6 & 6\end{array}$ | $\begin{array}{ll}2 & 3 \\ 9 & 0\end{array}$ | $\begin{array}{rr}2 & 3 \\ 11 & 3\end{array}$ | 2 14 | $\begin{array}{ll}1 & 8 \\ 5\end{array}$ | $\begin{array}{lll}1 & 11 \\ 9 & 8\end{array}$ | $\begin{array}{rr}1 & 11 \\ 4\end{array}$ |
| As percentage of expenditureon subsidised foods | 13 | 19 | 22 | 24 | 26 | 14 | 18 | 17 |
| As percentage of total food expenditure | 7 | 10 | 12 | 13 | 15 | 7 | 10 | 9 |

TABLE 4
Proportional Distribution of Total Sabsidies between the Subsidised Foods in Households of Different Composition, Financial Year 1952-53


## APPENDIXE

TABLES OF CONSUMPTION, EXPENDITURE AND PRICES
TABLE 1
Domestic Food Expenditure, 1952
All Households


TABLE 1-continued


TABLE 1-continued


TABLE 2
Domestic Food Consumption, 1952 All Households

| per person per week |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1st Quarter 02. (a) | 2nd oz. (a) | 3rd Quarter oz. (a) | 4th Quarter oz. (a) | Yearly Average oz. (a) |
| Milk and Milk Products Liquid: |  |  |  |  |  |
|  |  |  |  |  |  |
| Full price ... ... pt. | 3.98 0.66 | 4.05 0.66 | 3.91 0.71 | 3.90 0.67 | 3.96 0.67 |
| Welfare ... ... pt. | $0 \cdot 66$ | 0.66 0.19 | 0.71 0.15 | 0.67 0.22 | 0.67 0.19 |
| School Condensed: $\cdots$... pt. | 0.19 | 0.19 | $0 \cdot 15$ | $0 \cdot 22$ | 0.19 |
| Skimmed, sweetened eq. pt. | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| Whole, sweetened ... eq. pt. | 0.05 | 0.04 | 0.05 | 0.07 | 0.05 |
| Whole, unsweetened eq. pt. | 0.05 | 0.03 | 0.06 | 0.07 | 0.05 |
| Dried: |  |  |  |  |  |
| Whole (N.D.M.) and half cream ... ... eq. pt. | $0 \cdot 11$ | $0 \cdot 10$ | 0.09. | 0.09 | $0 \cdot 10$ |
| Whole, branded ...eq. pt. | $0 \cdot 02$ | 0.02 | 0.03 | 0.02 | 0.03 |
| Other milk ... ... pt. | 0.01 | 0.01 | 0.03 | ... | 0.01 |
| Total milk | 5.09 | $5 \cdot 12$ | $5 \cdot 05$ | $5 \cdot 06$ | 5.08 |
| $\begin{array}{ll}\text { Cream ... ... } \\ \text { Cheese (rationed) } \\ \text { Cheese (unrationed) } & \text {.. }\end{array}$ | 0.01 | 0.01 | 0.04 |  | 0.01 |
|  | 1.90 | 1.61 | 1.48 | 1.41 | 1.60 |
|  | 0.55 | 0.62 | 0.58 | 0. 52 | 0.57 |
| Mrat and Meat Products |  |  |  |  |  |
| Beef and veal ... | $4 \cdot 63$ | $4 \cdot 64$ | $8 \cdot 21$ |  |  |
| Mutton and lamb ... | 4.99 | $4 \cdot 16$ | 4.21 0.78 | 6.72 0.59 | 5.02 0.84 |
| Pork ... ... ... | 0.76 | $1 \cdot 25$ | 0.78 | $0 \cdot 59$ | 0.84 |
| Canned corned meat ... | ... | - | ... |  | ... |
| Total rationed meat | $10 \cdot 38$ | 10.05 | $13 \cdot 20$ | $13 \cdot 83$ | 11.86 |
| Bones | 0.81 | 0.45 | 0.35 | 0.65 | 0.56 |
| Bacon (rationed)... | $3 \cdot 68$ | 4.81 | 4.78 0.36 | 4.68 0.57 | 4.49 0.39 |
| Bacon (unrationed) ... | 0.33 | 0.32 | 0.36 | 0.57 | 0.39 0.64 |
| Liver ... ... | $0 \cdot 68$ | 0.86 | 0.52 | 0.52 | 0.64 0.88 |
| Offals (other than liver)... | 1.04 | 0.88 | 0.67 | 0.94 0.90 | 0.88 0.60 |
| Poultry ... ... ${ }^{\text {Rabbit, game and } \text { other meat ... }}$ | 0.55 | 0.46 | 0.69 0.59 | 0.90 1.67 | 0.60 1.16 |
|  | 1.80 0.35 | 0.57 0.30 | 0.59 0.26 | 1.67 0.73 | 1.16 0.41 |
| Cooked and canned ham | $0 \cdot 35$ | $0 \cdot 30$ | 0.26 0.35 | 0.73 0.42 | 1.41 0.36 |
| Other cooked meat | $0 \cdot 34$ | $0 \cdot 33$ | 0.35 1.96 | 0.42 1.62 | 0.36 1.82 |
| Other canned meat | 1.69 | $2 \cdot 01$ | 1.96 3.15 | 1.62 3.85 |  |
| Sausages, uncooked ... ... | $3 \cdot 97$ | 3.53 2.34 | 1.15 1.80 | 3.85 $\mathbf{2 . 1 0}$ | 1.63 $\mathbf{2 . 1 9}$ |
| Other meat products ... ... | $2 \cdot 51$ | $2 \cdot 34$ | 1.80 | $2 \cdot 10$ | $2 \cdot 19$ |
| Total bacon, unrationed meat and meat products... | $17 \cdot 75$ | $16 \cdot 86$ | $15 \cdot 28$ | $18 \cdot 65$ | $17 \cdot 13$ |
| Fish |  |  |  |  |  |
| White, fresh, cheap ... | $3 \cdot 18$ | 3.07 | 2.80 | 2.91 0.85 | 2.99 0.78 |
| White, fresh, expensive | 0.74 | 0.81 | 0.72 0.58 | 0.85 0.78 | 0.78 0.65 |
| Fat, fresh ... | 0.75 | $0 \cdot 51$ | 0.58 | 0.78 | 0.65 |
| White, processed | 0.85 | $0 \cdot 59$ | 0.46 | 0.65 | 0.64 |
| Fat, processed | 0.80 | 0.55 | 0.69 0.09 | 0.86 0.10 | 0.72 0.09 |
| Shell ... | 0.07 1.13 | 0.09 | 0.09 1.15 | 0.10 0.99 | 0.729 1.10 |
| Cooked | $1 \cdot 13$ | 1.13 | $1 \cdot 15$ | 0.99 0.29 | 1.10 0.39 |
| Canned and bottled | 1.37 0.19 | 0.55 0.17 | $0 \cdot 36$ 0.11 | 0.29 0.16 | $1 \cdot 10$ 0.39 0.16 |
| Manufactured |  | $0 \cdot 17$ | 0.1 |  |  |
| Total fish | $8 \cdot 08$ | $7 \cdot 47$ | 6.96 | $7 \cdot 59$ | $7 \cdot 52$ |
| 73 |  |  |  |  |  |
| 81327 |  |  |  |  | C 5 |

TABLE 2-continued

| per person per week |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1st Quarter oz. (a) | 2nd Quarter oz. (a) | 3rd Quarter oz. (a) | 4th Quarter <br> oz. (a) | Yearly <br> Average <br> oz. (a) |
| Eoos |  |  |  |  |  |
| Shell, hens' ... ... No. | $3 \cdot 10$ | $3 \cdot 84$ | 2.47 | $2 \cdot 37$ | 2.95 |
| Shell, other ... ... No. | 0.02 | 0.07 | 0.03 | 0.02 | 0.03 |
| Dried ... | ... | ... | ... | ... | ... |
| Total eggs | $3 \cdot 12$ | $3 \cdot 91$ | $2 \cdot 50$ | $2 \cdot 39$ | $2 \cdot 98$ |
| Fats |  |  |  |  |  |
| Butter ... | 3.09 | $3 \cdot 11$ | $2 \cdot 50$ | $2 \cdot 46$ | $2 \cdot 79$ |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| fat. ${ }^{\text {fatet and dripping }} \ldots$ | 0.41 | 0.40 | 0.48 | 0.70 | 0.50 |
| Other fats, oils and creams ... | $0 \cdot 10$ | 0. 10 | $0 \cdot 10$ | 0.06 | 0.09 |
| Total fats ... ... ... | $9 \cdot 66$ | 9.81 | $9 \cdot 64$ | $9 \cdot 98$ | 9.78 |
| Sugar and Preserves |  |  |  |  |  |
| Sugar ... ... | 10.11 | 11.09 | $12 \cdot 53$ | $10 \cdot 27$ | 11.00 |
| Honey and preserves | $4 \cdot 44$ | 4.80 | $4 \cdot 15$ | $4 \cdot 11$ | $4 \cdot 38$ |
| Syrup and treacle | 1.85 | $1 \cdot 59$ | $1 \cdot 44$ | 1.79 | $1 \cdot 67$ |
| Total sugar and preserves... | $16 \cdot 40$ | $17 \cdot 48$ | 18-12 | $16 \cdot 17$ | $17 \cdot 05$ |
| Vboetables |  |  |  |  |  |
| Old potatoes ... ... | 66.92 | $41 \cdot 67$ | 22.07 | 69.96 | $50 \cdot 16$ |
| New potatoes ... | 0.27 | 16.68 | $38 \cdot 73$ | - | 13.91 |
| Chips ... ... ... | 1.84 | 2.00 | 1.77 | 1.64 | $1 \cdot 81$ |
| Crisps ... ... | 0.05 | 0.08 | 0.07 | $0 \cdot 05$ | 0.06 |
| Carrots | $3 \cdot 52$ | 1.45 | $2 \cdot 78$ | $4 \cdot 12$ | $2 \cdot 96$ |
| Other root vegetables | 3.93 | 1.28 | 2.41 | $4 \cdot 40$ | 3.00 |
| Cabbages ... | 6.03 | 7.94 | $6 \cdot 21$ | $6 \cdot 56$ | $6 \cdot 68$ |
| Brussels sprouts ... | 4.00 | $0 \cdot 10$ | 0.24 | 4.98 | $2 \cdot 33$ |
| Cauliflower ... | 1.96 | $2 \cdot 89$ | 1.47 | $2 \cdot 39$ | $2 \cdot 17$ |
| Leafy salads ... | 0.44 | 2.24 | 2.04 | 0.31 | 1.26 |
| Fresh legumes ... ... |  | 2.05 | $12 \cdot 14$ | $0 \cdot 31$ | $3 \cdot 63$ |
| Quick frozen legumes ... | 0.08 | 0.09 | 0.03 | 0.06 | 0.06 |
| Other fresh green vegetables... | 0.26 | 0.49 | 0.14 | 0.08 | 0.24 |
| Onions, shallots etc. ... ... | $4 \cdot 19$ | $3 \cdot 25$ | $3 \cdot 25$ | 4.35 | $3 \cdot 76$ |
| Miscellaneous fresh vegetables | 0.35 | 1.32 | $2 \cdot 22$ | 1.09 | 1.25 |
| Dried pulses ... ... ... | $1 \cdot 11$ | 0.94 | $0 \cdot 43$ | 0.85 | 0.83 |
| Canned pulses ... ... | $4 \cdot 56$ | $4 \cdot 69$ | $3 \cdot 28$ | $4 \cdot 34$ | $4 \cdot 22$ |
| Canned vegetables (other than pulses) | $0 \cdot 15$ | 0.23 | 0.09 | 0.06 | $0 \cdot 13$ |
| Vegetable products ... $\ldots$ | 0.14 | $0 \cdot 10$ | $0 \cdot 10$ | 0.09 | $0 \cdot 11$ |
| Total vegetables | 99.80 | 89.49 | 99.47 | $105 \cdot 64$ | 98.57 |
| Frutr |  |  |  |  |  |
| Tomatoes (fresh and quick frozen) | $2 \cdot 56$ | $5 \cdot 21$ | $8 \cdot 32$ | $3 \cdot 33$ | $4 \cdot 86$ |
| Tomatoes (canned and bottled) | 1.14 | 0.83 | 0.51 | 0.82 | 0.82 |
| Oranges | $4 \cdot 15$ | $3 \cdot 30$ | 1.56 | $2 \cdot 22$ | $2 \cdot 81$ |
| Other citrus fruit | 0.87 | $0 \cdot 64$ | 0.46 | 0.42 | $0 \cdot 60$ |
| Apples and pears | $7 \cdot 17$ | 5.71 | 8.95 | $9 \cdot 70$ | $7 \cdot 88$ |
| Stone fruit ... ... | 0.08 | 0.55 | $5 \cdot 25$ | $0 \cdot 21$ | 1.52 |
| Soft fruit $\begin{aligned} & \text { Ouick frozen soft fruit } \\ & \text { Q }\end{aligned}$ | 0.07 | 1.91 | $2 \cdot 53$ | $0 \cdot 12$ | 1.16 |
|  | 0.01 | ... | 0.01 | 0.01 | 0.01 |

TABLE 2-continued

| per person per week |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1st Quarter oz. (a) | 2nd Quarter oz. $(a)$ | 3rd Quarter oz (a) | 4th Quarter oz. (a) | Yearly Average 02. (a) |
| Fruit-contd. |  |  |  |  |  |
| Bananas | 1.08 | 1.03 | 1.46 | $2 \cdot 20$ | 1.44 |
| Other fresh fruit | 0.45 | $2 \cdot 66$ | 0.59 | $0 \cdot 02$ | 0.93 |
| Canned and bottled fruit | 1.63 | 1.48 | 1.85 | $2 \cdot 22$ | $1 \cdot 80$ |
| M.O.F. orange juice ... | $0 \cdot 11$ | 0.11 | $0 \cdot 13$ | $0 \cdot 12$ | $0 \cdot 12$ |
| Other fruit juices ... | $0 \cdot 12$ | 0.09 | $0 \cdot 12$ | 0.09 | 0.10 |
| Dried vine fruit | 0.09 | 0.56 | 0.53 | 0.95 | $0 \cdot 53$ |
| Other dried fruit | 0.21 | $0 \cdot 40$ | $0 \cdot 22$ | 0.32 | 0.29 |
| Nuts and fruit and nut products | 0.45 | $0 \cdot 32$ | $0 \cdot 30$ | 1.02 | $0 \cdot 52$ |
| Total fruit .. | 20-19 | $24 \cdot 80$ | 32-79 | 23.77 | $25 \cdot 39$ |
| Crprals |  |  |  |  |  |
| Flour ... ... | $8 \cdot 39$ | $8 \cdot 38$ | $8 \cdot 36$ | 8.69 | 8.46 |
| National bread ... ... | $53 \cdot 29$ | 55.07 | $53 \cdot 57$ | 51.57 | $53 \cdot 37$ |
| Rolls and French bread, etc. | $2 \cdot 51$ | $2 \cdot 42$ | $2 \cdot 22$ | $2 \cdot 19$ | $2 \cdot 34$ |
| Other bread ... | 4.01 | $3 \cdot 61$ | 3.91 | $3 \cdot 88$ | $3 \cdot 85$ |
| $\begin{array}{ccc}\text { Sandwiches and bread and } \\ \text { butter } & \text {... } & \text {... }\end{array}$ | 0.04 | 0.03 | 0.03 | 0.04 | $0 \cdot 04$ |
| Fruit bread ... | 2.01 | 1.86 | 1.71 | 1.86 | 1.86 |
| Biscuits ... ... | $4 \cdot 75$ | $4 \cdot 76$ | $4 \cdot 85$ | $4 \cdot 86$ | $4 \cdot 80$ |
| Cakes and pastries ... | $5 \cdot 75$ | $5 \cdot 40$ | 5.01 | $5 \cdot 46$ | $5 \cdot 41$ |
| Puddings ... ... | 0.37 | $0 \cdot 60$ | $0 \cdot 63$ | 0.44 | $0 \cdot 50$ |
| Oatmeal and oat products ... | 1.58 | 0.90 | 1.00 | 1.66 | $1 \cdot 28$ |
| Breakfast cereals ... | 1.36 | 1.58 | 1.66 | 1.31 | 1.48 |
| Rice and barley ... ... | 1.31 | 1.00 | $0 \cdot 79$ | 1.00 | $1 \cdot 02$ |
| Cereals, flour base ... | 0.81 | $0 \cdot 77$ | $0 \cdot 83$ | 0.79 | $0 \cdot 80$ |
| Other cereals ... | $0 \cdot 65$ | 0.74 | $0 \cdot 73$ | 0.67 | $0 \cdot 70$ |
| Total cereals | 86.83 | $87 \cdot 12$ | 85-30 | 84-42 | 85.91 |
| Biverages <br> Cocoa and cocoa base drinks |  |  |  |  |  |
|  | 0.47 | $0 \cdot 35$ | $0 \cdot 32$ | 0.41 | $0 \cdot 39$ |
| Tea ... ... ... ... | 2.02 | 2.06 | 2.40 | $2 \cdot 37$ | $2 \cdot 21$ |
| Coffee, bean and ground .... | 0.17 | $0 \cdot 13$ | $0 \cdot 15$ | $0 \cdot 11$ | $0 \cdot 14$ |
| Coffee extracts and essences ... | $0 \cdot 37$ | $0 \cdot 32$ | 0.25 | $0 \cdot 24$ | $0 \cdot 30$ |
| Total beverages | $3 \cdot 03$ | $2 \cdot 86$ | $3 \cdot 12$ | $3 \cdot 13$ | $3 \cdot 04$ |
| Miscellantous Patent drinks and foods |  |  |  |  |  |
| Patent drinks and foods | 0.24 | $0 \cdot 18$ | $0 \cdot 16$ | $0 \cdot 18$ | $0 \cdot 19$ |
| Spreads and dressings | 0.08 | $0 \cdot 22$ | 0.18 | 0.07 | $0 \cdot 14$ |
| Soups and extracts ... | 1.51 | 1.02 | 0.88 | 1.50 | 1.23 |

(a) Except where otherwise stated.

TABLE 3
Domestic Food Prices 1952
All Honseholds


TABLE 3-continued

|  | Average Prices paid(a) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1st Quarter | 2nd Quarter | $\begin{gathered} \text { 3rd } \\ \text { Quarter } \end{gathered}$ | 4th Quarter | Yearly average |
|  | d. | d. | d. | d. | d. |
| Fals- Butter | $30 \cdot 09$ | $30 \cdot 05$ | 30.15 | 35.59 | 31.06 |
| Margarine | 14.00 | 14.00 | 14.04 | 15.80 | 14.43 |
| Lard and compound cooking fat | 16.03 | 16.03 | $16 \cdot 06$ | 17.92 | 16.44 |
| Suet and dripping | $22 \cdot 98$ | $24 \cdot 45$ | 23.68 | 24.61 | 23.97 |
| Other fats, oils and creams ... | $40 \cdot 33$ | $38 \cdot 13$ | $36 \cdot 26$ | 42.99 | 38.94 |
| Sugar and Preserves- |  |  |  |  |  |
| Sugar ... ... ... | 6.05 | 6.05 | 6.06 | 7.00 | $6 \cdot 24$ |
| Honey and preserves ... | 17.87 | $18 \cdot 03$ | 18.07 | 18.05 | 18.00 |
| Syrup and treacle ... | 9.81 | $9 \cdot 89$ | $10 \cdot 28$ | $10 \cdot 28$ | 10.04 |
| Vegetables- |  |  |  |  |  |
| Old potatoes ... ... | 2.08 | 2.29 | 1.97 | 2.01 | $2 \cdot 10$ |
| New potatoes ... | 9.46 | $5 \cdot 21$ | $2 \cdot 49$ |  | $3 \cdot 48$ |
| Chips ... ... | 11.09 | $11 \cdot 97$ | 12.41 | $11 \cdot 82$ | 11.82 |
| Crisps ... ... | $48 \cdot 78$ | $43 \cdot 95$ | 44.06 | $46 \cdot 82$ | $45 \cdot 47$ |
| Carrots... ... .. | $4 \cdot 82$ | 8.93 | $6 \cdot 22$ | $4 \cdot 71$ | $5 \cdot 64$ |
| Other root vegetables | $3 \cdot 89$ | $5 \cdot 67$ | $5 \cdot 91$ | 3.96 | $4 \cdot 42$ |
| Cabbages ... ... | 4.97 | $5 \cdot 13$ | 4.45 | $4 \cdot 48$ | $4 \cdot 82$ |
| Brussels sprouts ... | 9.38 | $8 \cdot 69$ | $10 \cdot 83$ | $8 \cdot 49$ | 8.99 |
| Cauliflower ... | 9.41 | $8 \cdot 16$ | $8 \cdot 15$ | $7 \cdot 56$ | $8 \cdot 34$ |
| Leafy salads ... | $30 \cdot 19$ | 19.43 | $15 \cdot 13$ | $24 \cdot 55$ | 19.65 |
| Fresh legumes ... | $17 \cdot 17$ | 9.01 | 8.98 | 12.34 | 9.05 |
| Quick frozen legumes ... | $32 \cdot 80$ | $31 \cdot 87$ | $32 \cdot 11$ | $32 \cdot 48$ | $32 \cdot 31$ |
| Other fresh green vegetables | $5 \cdot 97$ | $8 \cdot 25$ | 9.67 | $10 \cdot 32$ | $7 \cdot 74$ |
| Onions, shallots, etc. ... ... | $7 \cdot 32$ | $8 \cdot 55$ | $7 \cdot 60$ | $6 \cdot 63$ | $7 \cdot 50$ |
| Miscellaneous fresh vegetables | $26 \cdot 47$ | $23 \cdot 10$ | $12 \cdot 52$ | $14 \cdot 81$ | 17.48 |
| Dried pulses ... ... ... | 16.70 | $17 \cdot 77$ | $17 \cdot 86$ | $17 \cdot 25$ | 17-29 |
| Canned pulses Canned vegetables (other than | $14 \cdot 00$ | $14 \cdot 18$ | $14 \cdot 62$ | 14.65 | 14.32 |
| pulses) | $16 \cdot 41$ | 14•19 | 16.24 | $17 \cdot 86$ | $15 \cdot 50$ |
| Vegetable products ... | $16 \cdot 47$ | 21-88 | 19.58 | $17 \cdot 95$ | $18 \cdot 84$ |
| Fruti- |  |  |  |  |  |
| Tomatoes (fresh and quickfrozen) | $17 \cdot 61$ | $24 \cdot 00$ | $16 \cdot 48$ | 14.91 | $18 \cdot 64$ |
| Tomatoes (canned and bottled) | 18.01 | 18.06 | $18 \cdot 28$ | $17 \cdot 26$ | 17.94 |
| Oranges $\quad \cdots$ | $9 \cdot 50$ | $10 \cdot 84$ | $12 \cdot 77$ | 11.31 | $10 \cdot 66$ |
| Other citrus fruit | 12.07 | 11.68 | $14 \cdot 28$ | $14 \cdot 72$ | $12 \cdot 73$ |
| Apples and pears ... | $10 \cdot 72$ | 12.87 | 9.78 | $8 \cdot 63$ | 10.39 |
| Stone fruit | $20 \cdot 54$ | $15 \cdot 25$ | 6.88 | $6 \cdot 25$ | 7.93 |
| Soft fruit | 31.03 | $18 \cdot 65$ | 18.44 | 29.77 | 19.23 |
| Quick frozen soft fruit | $39 \cdot 49$ | $29 \cdot 23$ | 37.78 | $35 \cdot 11$ | 35.81 |
| Bananas | 12.83 | 12.90 | 12.69 | $12 \cdot 86$ | 12.81* |
| Other fresh fruit | $13 \cdot 33$ | 5.95 | $10 \cdot 55$ | $14 \cdot 40$ | 8.04 |
| Canned and bottled fruit | 21.51 | $22 \cdot 46$ | 21.73 | 21.68 | 21.85 |
| M.O.F. orange juice ... | $13 \cdot 44$ | $13 \cdot 53$ | 13.25 | $13 \cdot 47$ | $13 \cdot 42$ |
| Other fruit juices | 25.30 | $30 \cdot 25$ | 24.98 | $33 \cdot 90$ | 27.96 |
| Dried vine fruit | 15•39 | 15-30 | 16.02 | $14 \cdot 51$ | $15 \cdot 17$ |
| Other dried fruit | $19 \cdot 89$ | 15.21 | 14.20 | 19.98 | 16.96 |
| $\begin{array}{cccc}\text { Nuts and } & \text { fruit } & \text { and } & \text { nut } \\ \text { products } & \ldots & \ldots & \ldots\end{array}$ | 28.01 | $29 \cdot 41$ | $29 \cdot 40$ | $31 \cdot 51$ | 29.90 |
| Crrrals- |  |  |  |  |  |
| Flour ... ... ... | 4.91 | $6 \cdot 00$ | 6.04 | 6.05 | 5.73 |
| National bread ... ... | $3 \cdot 77$ | $4 \cdot 53$ | 4.55 | $4 \cdot 57$ | $4 \cdot 34$ |
| Rolls and French bread, etc. | $8 \cdot 76$ | $9 \cdot 60$ | 9.55 | $10 \cdot 31$ | 9.49 |
| Other bread ... ... .. | $4 \cdot 94$ | $5 \cdot 81$ | $5 \cdot 83$ | $5 \cdot 95$ | $5 \cdot 60$ |

TABLE 3-continued

|  | Average Prices paid(a) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\xrightarrow[\text { Quarter }]{\text { Qut }}$ | $\begin{gathered} \text { 2nd } \\ \text { Quarter } \end{gathered}$ | $\begin{gathered} \text { 3rd } \\ \text { Quarter } \end{gathered}$ | $\begin{gathered} \text { 4th } \\ \text { Quarter } \end{gathered}$ | Yearly average |
|  | d. | d. | d. | d. | d. |
| Cereals-contd. ${ }_{\text {Sandwiches }}$ and bread and |  |  |  |  |  |
| $\begin{array}{ccc}\text { Sandwiches and } & \text { bread and } \\ \text { butter } & \ldots & \ldots\end{array}$... | $35 \cdot 25$ | $35 \cdot 74$ | $33 \cdot 51$ | 50.46 | $37 \cdot 40$ |
| Fruit bread ... | $13 \cdot 24$ | 14.69 | 14.58 | 14.93 | $14 \cdot 30$ |
| Biscuits ... ... | $24 \cdot 76$ | $25 \cdot 88$ | 25.84 | 26.09 | $25 \cdot 62$ |
| Cakes and pastries ... | 29.48 | $30 \cdot 49$ | $30 \cdot 96$ | $31 \cdot 08$ | $30 \cdot 44$ |
| Puddings ... ... | 22.98 | $23 \cdot 86$ | 23.60 | $25 \cdot 15$ | 23.82 |
| Oatmeal and oat products | 11.93 | $12 \cdot 33$ | 11.56 | 11.43 | 11.80 |
| Breakfast cereals ... | $21 \cdot 58$ | $22 \cdot 63$ | $23 \cdot 24$ | $22 \cdot 69$ | 22-56 |
| Rice and barley ... | $10 \cdot 90$ | 11.50 | 13.34 | 13.01 | 11.97 |
| Cereals, flour base | 14.98 | $15 \cdot 94$ | $16 \cdot 14$ | $16 \cdot 33$ | $15 \cdot 81$ |
| Other cereals ... | $22 \cdot 90$ | 24.06 | 24.94 | 24.62 | 24-12 |
| Beverages- |  |  |  |  |  |
| Cocoa and cocoa base drinks | $42 \cdot 79$ | $43 \cdot 72$ | 45.28 | 45.85 | 44-21 |
| Tea ... | 47.85 | 49.95 | $56 \cdot 11$ | 55.91 | 52.48 |
| Coffiee, bean and ground ... | 60.52 | $61 \cdot 80$ | $65 \cdot 13$ | 68.77 | $63 \cdot 31$ |
| Coffee extracts and essences ... | 72.28 | 72.99 | $78 \cdot 49$ | $75 \cdot 00$ | $74 \cdot 26$ |
| Miscellaneous- |  |  |  |  |  |
| Patent drinks and foods | $48 \cdot 32$ | $46 \cdot 38$ | $48 \cdot 00$ | $47 \cdot 65$ | 47-62 |
| Spreads and dressings | $38 \cdot 41$ | $41 \cdot 88$ | $41 \cdot 54$ | $40 \cdot 85$ | 41.16 |
| Soups and extracts ... ... | 23.02 | $25 \cdot 36$ | $26 \cdot 36$ | $25 \cdot 48$ | 24-78 |

(a) Pence per lb. except pence per pint of liquid and other milk and cream, pence per equivalent pint of condensed and dried milk, and pence per shell egg.

## APPENDIX F

## CONTRIBUTION OP DIFFERENT ROODS TO THE NUTRIENT CONTENT OF THE DIET

1. In the Annual Report for 1950 the principal sources in the diet of energy and nutrients were shown. The present series, Tables 1 to 20 , show similar data for households according to social class and family composition. A complete set of similar tables was not given in the Annual Report for 1951 and therefore the 1952 data have had to be compared with those for 1950.
2. Compared with 1950 there was, in 1952, a fall in the amounts of rationed meat and total fats (especially butter) consumed coupled with a rise in cereals, vegetables and fruits. The effects of these changes have been discussed in the main report( ${ }^{1}$ ). Broadly speaking, the diets for all classes and households of different composition became slightly more bulky because a smaller proportion of the total energy was derived from fat.
3. In August 1950, the extraction rate of flour was reduced from 85 per cent. to 80 per cent. so that its contribution to the totals for iron, vitamin $B_{1}$ and riboflavin fell. The rise in the nicotinic acid contribution from bread and flour was the result of an increase in the quantity of brown bread with a much higher nicotinic acid content. This rise, together with the marked fall in the amount of rationed meats, placed cereals as the chief source of nicotinic acid in the diets of all classes except Class A in 1952 (Table 8).
4. The contribution of vegetables to the vitamin $\mathbf{A}$ in the diet was greater than that from fats for all classes except the Old Age Pensioner Households (Table 5). In 1950 that from fats exceeded vegetables by amounts ranging from 10 per cent. to over 50 per cent. As there was an increase in the margarine ration in 1952 to compensate to some extent for the smaller ration of butter available, the amount of vitamin $D$ (Table 10) from margarine was considerably greater for all classes than in 1950. In all classes there was a rise in the amount of vitamin Crom potatoes which for Classes C and D provided, as in 1950 , nearly 40 per cent. of the total quantity. There was a considerable rise in the amount obtained from this source by the Old Age Pensioner group. Green vegetables became a slightly more important source of vitamin C for Classes C and D (Table 9).
5. Similar tables for the year 1950 for different groups of households according to family composition were not prepared and it is not possible, therefore, to make detailed comparisons. The contributions of different foods to the total nutritive value for the period April-May 1950 were published and except for vitamins $A$ and $C$, influenced by seasonal changes, the general pattern was probably fairly similar for the year. The slight changes between 1950 and 1952 were, as for social class data, caused by the increased consumption of bread and flour and the reduction in the quantities of rationed meats and fats.
6. In 1952 the proportion of protein from animal sources was slightly less for nearly all groups of households, the lowest percentage being 44 in households containing both children and adolescents (Table 12). From milk and cereals the percentages of calcium derived were between 86.4 and 90.0 in 1950 , compared with 84.5 to 88.0 in 1952 (Table 13). The ranges were small because in both years in households with 2 or more children the lowest milk consumption was accompanied by the highest consumption of bread and flour. Between different types of households the proportions of vitamin $B_{1}$ (Table 16) and riboflavin (Table 17) from bread and flour were of the same order as in 1950, but lower because of changes in the extraction rate of flour. As in social class comparisons, cereals became the chief source of nicotinic acid in the diets of all groups of households (Table 18). In 1950 the contribution from meats was greater than from cereals in households containing up to 2 children. A higher consumption of margarine made this food more important as a source of vitamin D for all types of household (Table 20).
(1) Paragraphs 65 to 68 and 83 to 86.
TABLE 1

TABLE 2

TABLE 3

table 4


TABLE 3

|  |  |  |  |  |  |  |  |  |  |  | per head per dayAll households |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Social Class |  |  |  |  |  |  |  |  |  |  |  |
|  | A |  | B |  | C |  | D |  |  |  |  |  |
|  |  |  | Excluding old age pensioner households | Old age pensioner households |  |  |  |
|  | mg. | Per cent. of total |  |  | mg . | Per cent. of total | mg. | Per cent. of total | mg. | Per cent. of total | mg. | Per cent. of total | mg. | Per cent. of total |
| Milk | 602 | 54.5 | 510 | 48.7 |  |  | 474 | $45 \cdot 4$ | 459 | $45 \cdot 2$ | 468 | $47 \cdot 4$ | 493 | 47-3 |
| Cheese ... ... | 76 | 6.9 | 70 | $6 \cdot 8$ | 73 | 7.0 | 69 | 6.8 | 66 | 6.7 | 70 | 6.7 |
| Bread and flour ... ... | 219 | 19.8 | 276 | $26 \cdot 3$ | 311 | 29.7 | 306 | 30.1 | 291 | 29.4 | 291 | 27.9 |
| Other cereal products ... | 44 | $\xrightarrow{4.0} 23.8$ | 41 | ${ }^{3.9} 30.2$ | 40 | ${ }^{3.8} 33.5$ | 37 | $\xrightarrow{3.7} 33.8$ | 34 | ${ }^{3.4} 32.8$ | 40 | 3.831 .7 |
| Vegetables ... ... | 65 | 5.9 | 67 | $6 \cdot 4$ | 67 | 6.4 | 65 | 6.4 | 59 | 6.0 | 66 | $6 \cdot 3$ |
| Eggs ... ... . | 16 | 1.4 | 13 | 1.2 | 13 | 1.2 | 12 | 1.2 | 10 | 1.0 | 13 | 1.3 |
| Other foods (a) ... ... | 83 | 7.5 | 71 | 6.7 | 68 | 6.5 | 67 | 6.6 | 60 | $6 \cdot 1$ | 70 | 6.7 |
| Total ... | 1,105 | $100 \cdot 0$ | 1,048 | $100 \cdot 0$ | 1,046 | $100 \cdot 0$ | 1,015 | $100 \cdot 0$ | 988 | $100 \cdot 0$ | 1,043 | $100 \cdot 0$ |

table 4
Iron Content of Domestic Food Consumption, 1952, by Social Class

Vitamin A Content of Domestic Food Cons

TABLE 6
Vitamin $\mathrm{B}_{1}$ Content of Domestic Food Consumption，1952，by Social Class
Allowing for Cooking Losses（a）
per head per day

|  |  |  | 荘気 | $\stackrel{\stackrel{\rightharpoonup}{\dot{j}}}{\stackrel{\rightharpoonup}{\dot{j}}}$ |  | $\underset{\underset{\dot{\omega}}{\dot{y}} \underset{\sim}{n}}{n}$ | － |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { \& } \\ \text { を } \end{gathered}$ |  | 兑 | $\dot{8} \dot{0} \dot{0}$ | $$ |  | $\stackrel{\sim}{\square}$ |
| $\begin{aligned} & \text { B } \\ & \text { U } \\ & \text { W } \\ & \text { B } \end{aligned}$ | A |  |  |  |  | $\underset{\dot{\omega}}{\stackrel{\rightharpoonup}{\omega}} \stackrel{\infty}{\dot{n}}$ | － |
|  |  |  | 昌 | $\begin{aligned} & \ddagger \\ & \dot{0} \\ & \dot{0} \end{aligned}$ | $\begin{array}{ll} 9 \\ \hline 0 & 8 \\ 0 \end{array}$ | $\stackrel{H}{\dot{\circ}} \stackrel{n}{\dot{0}} \dot{0}$ | $\stackrel{\text { ¢ }}{\square}$ |
|  |  |  | $\begin{aligned} & \text { 若哥 } \\ & \text { 気家 } \end{aligned}$ | $\stackrel{\dot{m}}{\dot{m}}$ |  | $\stackrel{+}{\dot{\theta}} \stackrel{\ominus}{\dot{\theta}}$ | － |
|  |  |  | 宫 |  | $\begin{array}{ll} \underset{\sim}{\circ} \\ \dot{\varrho} \end{array}$ |  | $\stackrel{\sim}{\square}$ |
|  |  | 0 | 产気 |  |  | $\stackrel{\oplus}{\dot{\varphi}} \stackrel{\varphi}{=} \dot{\oplus}$ | ¢ |
|  |  |  | 显 | $\begin{aligned} & \text { f } \\ & \dot{0} \\ & \hline 0 \\ & \hline 0 \end{aligned}$ | $\begin{array}{ll} \underset{\sim}{\circ} \\ \dot{O} & \stackrel{0}{0} \end{array}$ | $$ | $\stackrel{9}{2}$ |
|  |  | ๓ |  |  | $\stackrel{m}{\dot{y}} \stackrel{\stackrel{m}{\dot{A}}}{\dot{i}}$ |  | ¢ |
|  |  |  | 曾 | $\begin{aligned} & \text { m } \\ & \dot{\text { m }} \end{aligned}$ | $\begin{array}{ll} \text { N } \\ \dot{0} & 8 \\ \hline \end{array}$ | $\stackrel{\underset{0}{0}}{\stackrel{0}{0}}$ | $\stackrel{\sim}{\square}$ |
|  |  | ＜ | 产気 |  |  | $\stackrel{\check{\theta}}{\dot{\mathrm{g}}} \dot{\underline{\theta}}$ | － |
|  |  |  | E | $\begin{array}{lc} \infty \\ \stackrel{0}{0} \\ \dot{0} & \stackrel{0}{0} \end{array}$ | $\stackrel{7}{\dot{0}}$ | $\overline{\overline{0}} \underset{\dot{0}}{\dot{\theta}} \stackrel{m}{\dot{0}}$ | $\stackrel{\square}{\square}$ |
|  |  |  |  |  |  |  | $\vdots$ <br> $\vdots$ <br> $\vdots$ <br> ¢ <br> ¢ |

（a）To allow for losses of vitamin $B_{1}$ in cooking 15 per cent．has been doducted from all figures as suggested in Medical Research Council War Memorandum
No．14． ＝
Social Class
TABLE 7

TABLE 8

TABLE 9
Vitamin C Content of Domestic Food Consumption, 1952, by Social Class

|  |  |  |  |  |  |  |  |  |  |  |  | ad per day |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | 1 Class |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | ouseholds |
|  |  | A |  | B |  | C |  | ding old pensioner seholds |  | d age sioner sholds |  |  |
|  | mg. | Per cent. of total | mg. | Per cent. of total | mg. | Per cent. of total | mg. | Per cent. of total | mg. | Per cent. of total | mg. | Per cent. of total |
| Potatoes ... . | 15 | 23.4 | 20 | $35 \cdot 7$ | 20 | $39 \cdot 2$ | 19 | $38 \cdot 0$ | 16 | 36.4 | 19 | 35.8 |
| Fruit (b) ... ... ... | 30 | $46 \cdot 9$ | 20 | $35 \cdot 7$ | 15 | 29.4 | 15 | $30 \cdot 0$ | 12 | $27 \cdot 3$ | 18 | $34 \cdot 0$ |
| Fresh green vegetables ... | 8 | $12 \cdot 5$ | 7 | $12 \cdot 5$ | 7 | $13 \cdot 7$ | 7 | 14.0 | 7 | 15.9 | 7 | $13 \cdot 2$ |
| Other vegetables ... ... | 3 | $4 \cdot 7$ | 2 | $3 \cdot 6$ | 3 | 5.9 | 3 | 6.0 | 3 | 6.8 | 3 | $5 \cdot 7$ |
| Other foods (c) ... .. | 8 | $12 \cdot 5$ | 7 | 12.5 | 6 | 11.8 | 6 | 12.0 | 6 | 13.6 | 6 | 11.3 |
| Total ... ... ... | 64 | $100 \cdot 0$ | 56 | $100 \cdot 0$ | 51 | $100 \cdot 0$ | 50 | $100 \cdot 0$ | 44 | $100 \cdot 0$ | 53 | $100 \cdot 0$ |

(a) Allowances for cooking losses are those suggested in Medical Research Council War Memorandum No. 14.
(b) Includes tomatoes.
(c) Includes Welfare orange juice.
88

89
TABLE 11
Energy Value of Domestic Food Consumption, 1952, by Households with one Male and one Female Adult per head per day

|  | Households with 1 male and 1 female adult and |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No other |  | Children only |  |  |  |  |  |  |  | Adoleucents only |  | Adolescents and children |  |
|  |  |  | 1 |  | 2 |  | 3 |  | 4 or more |  |  |  |  |  |
|  | Cal. | Per cent. of total | Cal. | Por cent. of total | Cal. | Per cent. of total | Cal. | Per cent. of total | Cal. | Per cent. of total | Cal. | Per cent. of total | Cal. | Per cent. of total |
| \% Other cereal products ${ }^{\text {Bread and flor }}$ | 814 | $29 \cdot 2$ $10 \cdot 7$ -39.9 | $\begin{aligned} & 689 \\ & 274 \end{aligned}$ | 27.5 10.9 -38.4 | $\begin{aligned} & 610 \\ & 232 \end{aligned}$ | $\begin{aligned} & 27 \cdot 1 \\ & 10 \cdot 3 \\ & -37 \cdot 4 \end{aligned}$ | $\begin{aligned} & 611 \\ & 214 \end{aligned}$ | $\begin{aligned} & 28.2 \\ & \quad 9.8 \\ & -38.0 \end{aligned}$ | $\begin{aligned} & 673 \\ & 196 \end{aligned}$ | $31 \cdot 1$ $\mathbf{9 . 0}$ $-40 \cdot 1$ | 839 280 | $30 \cdot 8$ $10 \cdot 3$ $-41 \cdot 1$ | 795 | $\begin{gathered} 32.9 \\ 9.0 \\ -41.9 \end{gathered}$ |
| Fats | 333 | 11.9 | 311 | $12 \cdot 4$ | 303 | 13.4 | 303 | 13.9 | 301 | 13.9 | 325 | $12 \cdot 0$ | 308 | $12 \cdot 8$ |
| Meat, rationed (including bacon) | 223 | $8 \cdot 0$ | 192 | $7 \cdot 7$ | 172 | $7 \cdot 6$ | 157 | $7 \cdot 2$ | 149 | 6.9 | 207 | $7 \cdot 6$ | 171 | 7-1 |
| Meat, other ... ... | 141 | 5.0 | 110 | 4.4 $12 \cdot 1$ | 89 | 4.0 11.6 | 76 | 3.5 ${ }^{-10.7}$ | 63 | 2.9 9.8 | 135 | ${ }^{5 \cdot 0} 12.6$ | 95 | $\xrightarrow{3.9} 11.0$ |
| Milk-All forms ... | 297 | $10 \cdot 6$ | 302 | 12.1 | 279 | $12 \cdot 4$ | 267 | $12 \cdot 3$ | 249 | 11.5 | 260 | 9.6 | 238 | 9.8 |
| Potatoes, including chips | 173 | $6 \cdot 2$ | 174 | $7 \cdot 0$ | 154 | $6 \cdot 8$ | 164 | $7 \cdot 6$ | 172 | 7.9 | 188 | 6.9 | 185 | $7 \cdot 6$ |
| Other vegetables and | 108 | ${ }^{3 \cdot 9} 10 \cdot 1$ | 96 | 3.8 10.8 | 84 | ${ }^{3 \cdot 7} 10.5$ | 69 | $\begin{aligned} & 3.2 \\ & -10.8 \end{aligned}$ | 61 | ${ }^{2.8} 10 \cdot 7$ | 101 | ${ }^{3.7} 10.6$ | 78 | $\xrightarrow{3 \cdot 2} 10 \cdot 8$ |
| Sugar and preserves ... | 257 | $9 \cdot 2$ | 238 | 9.5 | 231 | $10 \cdot 2$ | 220 | $10 \cdot 1$ | 220 | $10 \cdot 2$ | 249 | 9.2 | 233 | 9.6 |
| Other foods ... ... | 147 | $5 \cdot 3$ | 117 | $4 \cdot 7$ | 102 | 4.5 | 91 | 4.2 | 82 | 3.8 | 132 | 4.9 | 100 | $4 \cdot 1$ |
| Total | 2.792 | $100 \cdot 0$ | 2,503 | $100 \cdot 0$ | 2,256 | $100 \cdot 0$ | 2,172 | $100 \cdot 0$ | 2,166 | $100 \cdot 0$ | 2,716 | $100 \cdot 0$ | 2,421 | $100 \cdot 0$ |

Protein Content of Domestic Food Consumption, 1952, by Households with one Male and one Female Adult
per head per day

|  | Households with 1 male and 1 female adult and |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No other |  | Children only |  |  |  |  |  |  |  | Adolescents only |  | Adolescents and children |  |
|  |  |  |  | 1 | 2 |  | 3 |  | 4 or more |  |  |  |  |  |
|  | g. | Per cent. of total | g. | Per cent. of total | g. | Per cent. of total | g. | Per cent. of total | g. | Per cent. of total | g. | Per cent. of total | g. | Per cent. of total |
| Andmal ProteinMilk ... Cheese $\qquad$ | 15 | $\begin{gathered} 16.5 \\ 3.3 \\ \quad 19.8 \\ \hline \end{gathered}$ | 16 | $\begin{aligned} & 20 \cdot 2 \\ & 2 \cdot 5 \\ & -22 \cdot 7 \end{aligned}$ | 15 | $21 \cdot 4$ $2 \cdot 9$ -24.3 | 14 | $\begin{aligned} & 21 \cdot 2 \\ & 3 \cdot 0 \\ & \quad-24 \cdot 2 \end{aligned}$ | 13 | $\begin{aligned} & 20 \cdot 0 \\ & 3 \cdot 1 \\ & { }^{23} \cdot 1 \end{aligned}$ | 14 | $\begin{aligned} & 16 \cdot 1 \\ & 2 \cdot 3 \\ & \hline \end{aligned} 18 \cdot 4$ | 12 | $\begin{aligned} & 16.0 \\ & 2.7 \\ & \hline \end{aligned}$ |
| Meats | 18 | $19 \cdot 8$ | 15 | $19 \cdot 0$ | 12 | $17 \cdot 1$ | 11 | $16 \cdot 7$ | 9 | $13 \cdot 8$ | 17 | 19.6 | 13 | $17 \cdot 3$ |
| Fish ... ... ... | 5 | $5 \cdot 5$ | 3 | $3 \cdot 8$ | 3 | $4 \cdot 3$ | 2 | $3 \cdot 0$ | 2 | $3 \cdot 1$ | 5 | 5.7 | 3 | $4 \cdot 0$ |
| Eggs ... ... ... | 3 | $3 \cdot 3$ | 3 | 3.8 | 2 | $2 \cdot 9$ | 2 | $3 \cdot 0$ | 2 | $3 \cdot 1$ | 3 | $3 \cdot 5$ | 2 | $2 \cdot 7$ |
| Other foods ... | 1 | $1 \cdot 1$ | 1 | $1 \cdot 3$ | . 1 | 1.4 | 1 | 1.5 | 1 | 1.5 | 1 | $1 \cdot 1$ | 1 | $1 \cdot 3$ |
| Total animal protein | 45 | 49.5 | 40 | $50 \cdot 6$ | 35 | $50 \cdot 0$ | 32 | 48.4 | 29 | 44.6 | 42 | $48 \cdot 3$ | 33 | $44 \cdot 0$ |
| Vegetable Protenn- |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Bread and flour | 29 |  | 24 |  | 21 |  | 21 |  |  |  | 29 |  | 28 |  |
| Other cereal products | 6 | $\begin{aligned} & 6.6 \\ & -38.4 \end{aligned}$ | 5 | $\begin{aligned} & 6 \cdot 4 \\ & -36 \cdot 7 \end{aligned}$ | 5 | ${ }^{7 \cdot 1} 37 \cdot 1$ | 5 | $\begin{aligned} & 7 \cdot 6 \\ & -39 \cdot 4 \end{aligned}$ | 5 | ${ }^{7 \cdot 7} \mathbf{7 3 . 1}$ | 6 | ${ }^{6 \cdot 9} 40 \cdot 2$ | 5 | ${ }^{6 \cdot 7} 44 \cdot 0$ |
| Potatoes and vegetables | 8 | $8 \cdot 8$ | 8 | 10.1 | 7 | $10 \cdot 0$ | 7 | $10 \cdot 7$ | 7 | 10.8 | 8 | $9 \cdot 2$ | 7 | $9 \cdot 3$ |
| Other foods ... ... | 3 | $3 \cdot 3$ | 2 | 2.6 | 2 | $2 \cdot 9$ | 1 | 1.5 | 1 | 1.5 | 2 | $2 \cdot 3$ | 2 | $2 \cdot 7$ |
| Total vegetable protein | 46 | $50 \cdot 5$ | 39 | $49 \cdot 4$ | 35 | $50 \cdot 0$ | 34 | $51 \cdot 6$ | 36 | 55.4 | 45 | $51 \cdot 7$ | 42 | $56 \cdot 0$ |
| Total protein ... | 91 | $100 \cdot 0$ | 79 | $100 \cdot 0$ | 70 | $100 \cdot 0$ | 66 | $100 \cdot 0$ | 65 | $100 \cdot 0$ | 87 | $100 \cdot 0$ | 75 | $100 \cdot 0$ |

Calcium Content of Domestic Food Consumption, 1952, by Households with one Male and one Female Adult

| and varying Numbers of Children |
| :--- |

[^3]
TABLE 15
Vitamin A Content of Domestic Food Consamption, 1952, by Honseholds with one Male and one Female Adult

| and varying Numbers of Children |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Households with 1 male and 1 female adult and |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | No other |  | Children only |  |  |  |  |  |  |  | Adolescents only |  | Adolescents and children |  |
|  |  |  | 1 |  | 2 |  | 3 |  | 4 or more |  |  |  |  |  |
|  | i.u. | Per cent. of total | i.u. | Per cent. of total | i.u. | Per cent. of total | i.u. | Per cent. of total | i.u. | Per cent. of total | i.u. | Per cent. of total | i.u. | Per cent. of total |
| Fats ... | 807 | 18.9 | 766 | 19.6 | 763 | 22.6 | 766 | $25 \cdot 3$ | 767 | $27 \cdot 3$ | 789 | 19.7 | 759 | $24 \cdot 0$ |
| $¢^{\text {Root vegetables }} \ldots$ | 772 | 18.1 | 737 | 18.9 | 614 | 18.2 | 519 | $17 \cdot 1$ | 447 | 15.9 | 701 | 17.5 | 552 | 17.5 |
| \% Other vegetables ... | 284 | ${ }^{6 \cdot 7} 24 \cdot 8$ | 222 | $\begin{gathered} 5.7 \\ -24.6 \end{gathered}$ | 179 | $\xrightarrow{5 \cdot 3}-23 \cdot 5$ | 137 | $\stackrel{4 \cdot 5}{-5}^{21 \cdot 6}$ | 136 | ${ }^{4 \cdot 8} 20 \cdot 7$ | 235 | $\stackrel{5.9}{-} 23.4$ | 170 | $5.4$ |
| Milk ... ... | 498 | 11.7 | 530 | 13.6 | 495 | 14.6 | 472 | 15.6 | 448 | 15.9 | 450 | $11 \cdot 2$ | 416 | $13 \cdot 2$ |
| Cheese ... ... | 150 | $\frac{3.5}{-15.2}$ | 110 | ${ }^{2.8} 16.4$ | 98 | ${ }^{2.9} 17.5$ | 87 | ${ }^{2.9} 18.5$ | 81 | $\begin{aligned} & 2.9 \\ & -18.8 \end{aligned}$ | 130 | $\begin{aligned} & 3.2 \\ & -14.4 \end{aligned}$ | 102 | ${ }^{3.2} 16 \cdot 4$ |
| Meat, rationed (including bacon). | 25 | 0.6 | 21 | 0.5 | 19 | 0.6 | 16 | 0.5 | 15 | 0.5 | 23 | 0.6 | 19 | 0.6 |
| Meat, other ... | 984 | $\stackrel{23.0}{-23.6}$ | 853 | $21.8$ | 656 | $\xrightarrow{19.4} 20.0$ | 545 | $\stackrel{18.0}{18.5}$ | 478 | $\frac{17.0}{-17.5}$ | 939 | $\stackrel{23 \cdot 5}{-} 24 \cdot 1$ | 596 | ${ }^{18.9} 19.5$ |
| Eggs ... ... ... | 248 | 5.8 | 222 | 5.7 | 204 | 6.0 | 191 | 6.3 | 182 | 6.5 | 238 | 5.9 | 185 | 5.8 |
| Other foods (a) ... | 504 | 11.8 | 444 | 11.4 | 350 | 10.4 | 297 | 9.8 | 258 | 9.2 | 499 | 12.5 | 361 | 11.4 |
| Total... ... | 4,272 | $100 \cdot 1$ | 3.905 | $100 \cdot 0$ | 3,378 | $100 \cdot 0$ | 3,030 | $100 \cdot 0$ | 2,812 | $100 \cdot 0$ | 4,004 | $100 \cdot 0$ | 3,160 | $100 \cdot 0$ |

TABLE 16

per head per day

| Potatoes <br> Meats <br> Milk <br> Total... <br> Other vegetables <br> Other foods | B $_{1}$ Content of Domestic Food Consumption, 1952, by Houscholds with one Male and one Female Adult and varying Numbers of Children <br> Allowing for Cooking Losses (a) |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Households with 1 male and 1 female adult and |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | No other |  | Children only |  |  |  |  |  |  |  | Adolescents only |  | Adolescents and children |  |
|  |  |  | 1 |  | 2 |  | 3 |  | 4 or more |  |  |  |  |  |
|  | mg. | Per cent. of total | mg. | Per cent. of total | mg. | Per cent. of total | mg. | Per cent. of total | mg . | Per cent. of total | mg. | Per cent. of total | mg. | Per cent. of total |
|  | 0.51 | $34 \cdot 2$ | 0.42 | 32-3 | 0.37 | 32-1 | 0.37 | $33 \cdot 6$ | 0.40 | $36 \cdot 1$ | 0.51 | $35 \cdot 7$ | 0.48 | $38 \cdot 4$ |
|  | 0.09 | ${ }^{6.0}{ }^{-40.2}$ | 0.08 | $\xrightarrow{6.2} 38.5$ | 0.08 | $\xrightarrow{7.0} 39.1$ | 0.07 | ${ }^{6.4}{ }_{-40 \cdot 0}$ | 0.07 | ${ }^{6.3}{ }_{-42.4}$ | 0.09 | ${ }^{6 \cdot 3}-42 \cdot 0$ | 0.07 | 5.644 .0 |
|  | 0.23 | $15 \cdot 4$ | 0.22 | 16.9 | 0.19 | $16 \cdot 5$ | 0.20 | 18.2 | 0.21 | 18.9 | $0 \cdot 24$ | 16.8 | 0.23 | 18.4 |
|  | $0 \cdot 11$ | $\begin{aligned} & 7 \cdot 4 \\ & -22.8 \end{aligned}$ | 0.09 | $\begin{gathered} 6.9 \\ -23.8 \end{gathered}$ | 0.07 | $\stackrel{6 \cdot 1}{-22.6}$ | 0.07 | $\begin{aligned} & 6.4 \\ & -24.6 \end{aligned}$ | 0.06 | $\stackrel{5.4}{-24 \cdot 3}$ | 0.10 | $\begin{aligned} & 7 \cdot 0 \\ & -23 \cdot 8 \end{aligned}$ | 0.08 | $\begin{array}{r} 6 \cdot 4 \\ \hline \end{array}$ |
|  | 0.26 | 17.4 | 0.21 | 16.2 | $0 \cdot 19$ | 16.5 | 0.16 | 14.5 | 0.16 | 14.4 | 0.24 | 16.7 | $0 \cdot 18$ | 14.4 |
|  | 0.18 | 12.2 | 0.18 | 13.8 | 0.17 | 14.8 | 0.16 | 14.5 | 0.15 | 13.5 | $0 \cdot 16$ | 11.2 | $0 \cdot 14$ | 11.2 |
|  | $0 \cdot 11$ | 7.4 | 0.10 | $7 \cdot 7$ | 0.08 | 7.0 | 0.07 | $6 \cdot 4$ | 0.06 | 5.4 | 0.09 | 6.3 | 0.07 | $5 \cdot 6$ |
|  | 1.49 | $100 \cdot 0$ | $1 \cdot 30$ | $100 \cdot 0$ | $1 \cdot 15$ | $100 \cdot 0$ | $1 \cdot 10$ | $100 \cdot 0$ | $1 \cdot 11$ | $100 \cdot 0$ | 1.43 | $100 \cdot 0$ | $1 \cdot 25$ | $100 \cdot 0$ |

(a) To allow for losses of vitamin $B_{1}$ in cooking 15 per cent. has been dechucted from all figures as suggested in Medical Research Council War
Memorandum No. 14.
TABLE 17
Riboflavin Content of Domestic Food Consumption, 1952, by Households with one Male and one Female Adult per head per day
Households with 1 male and 1 female adult and

|  | Households with 1 male and 1 female adult and |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No other |  | Children only |  |  |  |  |  |  |  | Adolescents only |  | Adolescents and children |  |
|  |  |  | 1 |  | 2 |  | 3 |  | 4 or more |  |  |  |  |  |
|  | mg. | Per cent. of total | mg. | Per cent. of total | mg. | Per cent. of total | mg . | Per cent. of total | mg. | Per cent. of total | mg. | Per cent. of total | ms. | Per cent. of total |
| 2 Milk | 0.69 | $35 \cdot 2$ | 0.70 | 40.0 | 0.65 | 41.9 | 0.62 | 42-8 | 0.60 | 43.2 | 0.60 | 33.5 | 0.56 | 36.8 |
| Cheese ... ... | 0.06 | ${ }^{3 \cdot 1} 38 \cdot 3$ | 0.04 | ${ }_{-42.3}$ | 0.04 | $\stackrel{2.6}{44.5}^{-1}$ | 0.03 | ${ }^{2 \cdot 1}-44 \cdot 9$ | 0.03 | $\xrightarrow{2.2} 45$ | 0.05 | ${ }^{2 \cdot 8}{ }^{36} \cdot 3$ | 0.04 | $\begin{array}{r} 2.6 \\ -39.4 \end{array}$ |
| Bread and flour ... | 0.21 | 10.7 | 0.17 | 9.7 | 0.15 | 9.7 | 0.15 | $10 \cdot 3$ | 0.16 | 11.6 | 0.21 | 11.7 | 0.19 | 12.5 |
| Other cereal products | 0.09 | ${ }^{4 \cdot 6}-15 \cdot 3$ | 0.08 | $\xrightarrow{4 \cdot 6} 14 \cdot 3$ | 0.07 | $\stackrel{4.5}{-14.2}^{2}$ | 0.06 | $\stackrel{4 \cdot 1}{-14 \cdot 4}$ | 0.06 | ${ }^{4 \cdot 4}-16 \cdot 0$ | 0.09 | ${ }^{5.0}$ | 0.07 | ${ }^{4 \cdot 6}-17 \cdot 1$ |
| Meats ... ... | 0.34 | 17.4 | 0.27 | 15.4 | 0.22 | 14.2 | 0.19 | $13 \cdot 1$ | 0.16 | 11.8 | 0.30 | 16.8 | 0.22 | 14.5 |
| Vegetables ... ... | 0.24 | 12.2 | 0.22 | 12.6 | 0.19 | 12.3 | 0.19 | 13.1 | 0.20 | 14.5 | 0.24 | 13.4 | 0.21 | 13.8 |
| Eges ... ... ... | 0.10 | 5.1 | 0. 10 | 5.7 | 0.09 | 5.8 | 0.08 | 5.5 | 0.08 | 5.8 | 0.11 | 6.2 | 0.08 | $5 \cdot 3$ |
| Other foods | 0.23 | 11.7 | 0.17 | 9.7 | 0.14 | 9.0 | 0.13 | 9.0 | 0.09 | 6.5 | 0.19 | 10.6 | 0.15 | 9.9 |
| Total... ... | 1.96 | $7100 \cdot 0$ | 1.75 | $100 \cdot 0$ | 1.55 | $100 \cdot 0$ | $1 \cdot 45$ | $100 \cdot 0$ | $1 \cdot 38$ | $100 \cdot 0$ | 1.79 | 100.0 | $1 \cdot 52$ | $100 \cdot 0$ |

Riboflavin Content of Domestic Food Consumption, 1952, by Households
and varying Numbers of Children
TABLE 18
Nicotinic Acid Content of Domestic Food Consumption, 1952, by Households with one Male and one Female Adult


## TABLE 19

Vitamin C Content of Domestic Food Consumption, 1952, by Households with one Male and one Female Adult per head per day

| $\infty$ | Households with 1 male and 1 femalo adult and |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No other |  | Children only |  |  |  |  |  |  |  | Adolescents only |  | Adolescents and children |  |
|  |  |  | 1 |  | 2 |  | 3 |  | 4 or more |  |  |  |  |  |
|  | mg. | Per cent. of total | mg. | Per cent. of total | mg. | Per cent. of total | mg. | Per cent. of total | mg. | Per cent. of total | mg. | Per cent. of total | mg. | Per cent. of total |
| Potatoes | 21 | 32.7 | 21 | 35.6 | 17 | 34.0 | 17 | 38.6 | 19 | 44.2 | 21 | 35.0 | 20 | 40.8 |
| Fruit (b) ... ... | 23 | 36.0 | 21 | 35.6 | 18 | 36.0 | 14 | 31.8 | 11 | 25.6 | 20 | 33.3 | 15 | 30.7 |
| Fresh green vegetables | 9 | 14.0 | 7 | 11.8 | 6 | 12.0 | 5 | 11.4 | 5 | 11.6 | 8 | 13.3 | 6 | 12.2 |
| Other vegetables ... | 4 | 6.2 | 3 | 5.2 | 3 | 6.0 | 2 | 4.6 | 2 | 4.7 | 4 | 6.7 | 2 | 4.1 |
| Other foods (c) ... | 7 | 11.1 | 7 | 11.8 | 6 | 12.0 | 6 | 13.6 | 6 | 13.9 | 7 | 11.7 | 6 | 12.2 |
| Total... ... | 64 | $100 \cdot 0$ | 59 | $100 \cdot 0$ | 50 | $100 \cdot 0$ | 44 | $100 \cdot 0$ | 43 | 100.0 | 60 | $100 \cdot 0$ | 49 | 100.0 |
| (a) Allowances for cooking loeses are those sugeested in Medical Research Council War Memorandum No. 14. <br> (b) Includes tomatoes. <br> (c) Includes Welfare orange juice. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

TABLE 20
Vitamin D Content of Domestic Food Consumption, 1952, by Households with one Male and one Female Adult
(a) Excludes Welfare fish liver oil and vitamin A and D tablets

Oatmeal and oat products, see Cereals Offal, see Meat
Old-age pensioners, see Social Classes
Oranges, see Fruit, citrus

## P

Potatoes: consumption, purchases 42, 43, by housohold composition 77, by social class 63: expenditure, by household composition 81, by social class 63; prices 43; from stock 43, App. A 3; supplies 7; vitamin C App. F 4
Preserves: consumption, purchases 33, by household composition 77; expenditure, by household composition 81; from stock App. A 3
Prices 4-23, see also under individual foods; seasonal variations 21, subsidised foods App. D 2; trends 10, 11, 21
Protein: animal 27, App. F 6; content of the diet, by household composition 78, 85, App. F 6, by social class 67, 68; from meals out App. B 12, 13; from school milk App. C 12, 13
Pulses, see Vegetables other than potatoes

## $\mathbf{R}$

Rationing, controlled distribution, see also under individual foods, ration levels 8
Requirement(s), see also under individual nutrients $66,67,85$; met from school meals and school milk App. C 9-13
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## S

Sample, composition of 1, 61, 69, App. A 4, national 1, selection App. A 2; see also Household, addresses, size
Social class(es) see also under individual foods, composition of the sample 51-58, App. A5; consumption by 34, 62-64, value of 59 ; definition, grouping, classification 51-53, 69, 70; diet, nutrient content of $65,67,68$; expenditure by 59, 62-64; income basis 54-56, App. A5; old age pensioners $53,56,58,59,61-63$, 65, 66, 69, 72, App. A 6, 8, App. D 6, 7, App. F. 4; school meals and school milk App. C; subsidies App. D7
Stocks, larder see Food, stocks

Subsidies: food 22, 23, App. D; cash value App. D3, 5, 7, 9, by household composition 8, 9, by social class App. D7; effect on prices App. D2; removal of 10, App. D2
Sugar and syrups: consumption 33, by household composition 77, 78, 86, by social class 63,64 ; energy value from 68: expenditure, by household composition 81, by social class 63, 64; prices App. D2; supplies 7
Supplies: entering into civilian consumption 4-7, 12 (see also under individual foods)
Survey, technique, methods 1, 61, App. Al.
Syrups see Sugar

T

## Tea see Beverages

Thiamin see Vitamin $\mathbf{B}_{1}$
Tomatoes see Fruit

## V

Vegetables, other than potatoes, consumption 41, from gardens and allotments 44, 45, by household composition 77, 78, seasonal 2 ; canned and dried 46; green, beans and peas, fresh 44, 46, App. A3. iron from 48, other green, consumption, purchases 44 , by social class 62 , experditure, by household composition 81 , by social class 63; prices 41, 44-46. supplies 44, 45; root 45; Vitamin A App. F4
Vitamins:
A-content of the diet, by social class 67 ; from fats App. F4; from vesotables App. F4
$\mathrm{B}_{1}$-content of the diet, from bread and flour App. F 3, 6, by social class 67; cooking losses 47
C-content of the diet, by social class 67; cooking losses 47; from potators App. F4
D-content of the diet, by househohd composition 84, from margarine App. F6
Vitamin A and D tablets 47

## w

Wages level 15
Waste, allowance for $12,47,49$
Welfare foods, see under Fish liver oil, Milk, Fruit (juices) and Vitamin $A$ and $D$ tablets.

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[^0]:    ${ }^{1}$ Domestic Food Consumption and Expenditure, 1951: H.M. Stationery Office, 1953

[^1]:    ${ }^{1}$ Both these indices have been calculated from National Food Survey data, and household food expenditure for 1950 and the first half of 1951 has been adjusted for changes in larder stocks. The weighting of items in the official Interim Index of Retail Prices was changed in February 1952, and the food component calculated on the new basis has not been linked to the earlier series. A linked index has, however, been published in the Bulletin of the London and Cambridge Economic Service, and this gives closely similar results: 111 for 1951 and 128 for 1952 on a 1950 base of 100.

[^2]:    ${ }^{1}$ Research on these lines is being undertaken by the University of Cambridge Department of Applied Economics in collaboration with the Ministry of Food. See "The Consumption of Food in Relation to Household Composition and Income", a paper read to the 15th European Meeting of the Econometric Society, August, 1953, by J. A. C. Brown, Department of Applied Economics.-Econometrica, vol. 22, October, 1954.

[^3]:    (a) Excludea Welfare vitamin $A$ and $D$ tablets

