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MINISTRY OF AGRICULTURE,
FISHERIES AND FOOD

Domestic Food Consumption and Expenditure, 1953

ANNUAL REPORT
OF THE
NATIONAL FOOD SURVEY COMMITTEE

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MINISTRY OF AGRICULTURE, FISHERIES
AND FOOD

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AND EXPENDITURE,
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NATIONAL FOOD SURVEY
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THE NATIONAL FOOD SURVEY COMMITTEE

Norman C. Wright, C.B., M.A., D.Sc., Ph.D., F.R.I.C.,
Ministry of Agriculture, Fisheries and Food, *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 Agriculture, Fisheries and 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 Agriculture,
Fisheries and 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

C. F. Pennison, Ministry of Agriculture, Fisheries and Food

R. E. Stedman, Ministry of Agriculture, Fisheries and Food

Miss D. F. Hollingsworth } *Secretaries*
A. H. J. Baines }

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PREFACE

The Annual Report of the National Food Survey Committee for 1953 is the fourth of the series. As in previous reports it records the average levels of food consumption and expenditure not only for a cross section of the whole population, but for households in different income groups and for families of varying composition.

It was stated in the Preface to the First Report of the Committee¹ that opportunities would be taken from time to time to deal in the Annual Reports with certain special aspects of the survey results. The analysis of the present material provided the first opportunity for differentiating current food consumption and expenditure on a regional basis, and it has thus been possible to include in the present Report a special section describing the diets of the Scottish sample. In addition the Report contains a discussion of the differences observed in 1952 and 1953 between the food consumption and expenditure of urban and rural households.

The preparation of the Report was undertaken jointly by Mr. A. H. J. Baines, who was responsible for the general design and for the sections on food expenditure and consumption, and Miss D. F. Hollingsworth, who was responsible for the sections on energy value and nutrient content. The Committee wish to express their thanks to these officers of the Ministry, as well as to their colleagues in the Ministry's Statistics and Intelligence Division and Scientific Adviser's Division (Food), for the way in which they have implemented the Committee's recommendations.

In accordance with the Government's policy of concentrating social surveys in a single agency, the field work of the National Food Survey was transferred in February, 1953, from the London Press Exchange to the Survey Division of the Central Office of Information. The Ministry and the Committee desire to express their indebtedness to the field staff of both organisations for their work during 1953, and to the many housewives who have provided the information on which the present Report is based.

NORMAN C. WRIGHT,
Chairman,
National Food Survey Committee

May, 1955.

¹ *The Urban Working Class Household Diet, 1940-49: Her Majesty's Stationery Office, 1951.*

I. INTRODUCTION

1. Since June, 1951, the National Food Survey has provided a continuous sample of household food budgets, covering all classes of the population. The Annual Report for 1952¹ described the diets of different social classes and households of different composition in terms of expenditure, consumption and nutrition. The present Report follows a similar general arrangement, includes a number of comparisons with the previous year and, as additional features, a section on the Scottish diet and a discussion of the differences between urban and rural household diets.

2. Since February, 1953, fieldwork has been carried out by the Social Survey Division of the Central Office of Information; certain consequential changes in Survey method are described in Appendix A, but there is no reason to suppose that any break in continuity has occurred.

3. In the basic tabulations of survey data for 1953, 109 foods were distinguished, and Appendix B continues the series of quarterly averages for this full classification. In the sections of the Report dealing with social class, family composition and urban and rural differences and with the Scottish sample a classification of 29 groups has been considered adequate. As in previous years, the sections on nutrition include tables showing the energy value and nutrient content of the diets of different population groups, compared with allowances based on the recommendations of the British Medical Association's Committee on Nutrition (1950).

II. FOOD SUPPLIES AND PRICES, 1953

4. The deterioration in the balance of payments position, which led to a reduction in food supplies during the first half of 1952, was arrested during that year and decisively reversed in 1953. Compared with 1952, the volume of all imports as recorded in the Trade Accounts was 9 per cent. greater, but owing to reductions in world prices their value was 4 per cent. less.² This fall in prices affected foodstuffs to a smaller extent than other commodities, and imports of food, drink and tobacco rose by 9 per cent. in value as well as 13 per cent. in volume. The higher imports of food and feedingstuffs were not fully reflected in higher consumption, since part of the increase was used to build up stocks. The largest increases in food imports were in meat, sugar, fresh fruit and fresh vegetables. Table 1 summarises the changes in supplies moving into civilian consumption between 1952 and 1954 and also includes comparative figures for 1934-38 and 1947.

¹ *Domestic Food Consumption and Expenditure, 1952*: H.M. Stationery Office, 1954.

² *Economic Survey, 1954*, Cmd. 9108.

TABLE 1
Changes in Supplies of Principal Foods (a), 1947, 1952-54 and Pre-War
 lb. per head per annum

	1934-38	1947	1952	1953	1953		1954 (c) (Provi- sional)
					Change on 1952	Change on 1934-38	
					per cent.	per cent.	
Dairy products, excluding butter (as milk solids)	38.3	48.7	51.5	52.3	+ 2	+ 36	52.7
Cheese (included also in dairy products) ...	8.8	10.5	7.7	9.2	+ 19	+ 5	10.0
Meat (edible weight) ...	110.0	82.0	84.6	92.9	+ 10	- 15	103.1
Fish, poultry, game (edible weight) ...	32.7	36.3	28.2	25.6	- 9	- 22	25.6
Eggs (total shell egg equivalent) ...	28.3	20.9	26.6	28.3	+ 6	- 0	28.7
Oils and fats:							
Butter ...	24.7	11.2	10.9	13.2	+ 21	- 47	14.2
Margarine ...	8.7	14.9	19.3	17.8	- 8	+104	19.4
Lard and compound cooking fats ...	9.3	7.4	11.0	9.7	- 12	+ 4	10.1
Other edible oils and fats ...	9.9	4.6	8.7	10.0	+ 5	+ 1	11.9
Total (fat content) ...	46.9	33.9	45.1	45.6	+ 1	- 3	50.1
Sugar and syrups (sugar content) (b) ...	104.6	85.0	90.7	100.6	+ 11	- 4	111.1
Potatoes ...	181.9	284.1	237.8	222.1	- 7	+ 22	220.8
Pulses, nuts etc. ...	9.5	7.9	9.4	10.6	+ 13	+ 12	11.8
Fruit, including tomatoes (fresh equivalent) ...	137.4	132.4	123.1	132.9	+ 8	- 3	137.2
Vegetables, other than potatoes ...	107.0	114.0	100.9	99.7	- 1	- 7	99.1
Cereal products ...	210.1	240.2	219.5	208.6	- 5	- 1	201.3
Tea ...	9.3	8.5	8.5	9.5	+ 12	+ 2	9.8
Coffee ...	0.7	1.6	1.5	1.3	- 13	+ 86	1.4
Total calories per head per day ...	3,000	2,880	2,950	3,000	+ 2	0	3,120

(a) Ministry of Food Bulletin 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 fruit equivalent) to conform with National Food Survey practice.

(b) Excludes usage for brewing and distilling.

(c) Economic Survey, 1955, Cmd. 9412.

5. Table 1 indicates that meat supplies continued to increase, partly at the expense of fish. In 1952 meat had been the only important food to show an improvement over the previous year, but in 1953 there were also increases in cheese, eggs, butter, sugar and syrups and fruit, with counter-balancing decreases in cereal products and potatoes, the cheap sources of energy. It is of interest that supplies of tea rose by 13 per cent. over 1952 and were slightly higher than in 1934-38; demand continued to rise during 1953 and began to press on supplies. Coffee supplies fell but remained well above the pre-war level.

6. Most of the changes between 1952 and 1953 reflected a tendency to revert to the pre-war position. Some of the remaining differences between the pre-war and post-war diet may be expected to persist, particularly the higher consumption of milk, the lower consumption of fish, and the partial replacement of butter by margarine.

7. Supplies during 1953 improved sufficiently to enable many of the remaining direct controls to be removed. Any possibility of relaxing controls in 1950

was prevented by the Korean crisis, and was further delayed by the subsequent shortage of foreign exchange and by the recession of 1951-52. During 1952 the movement in the terms of trade was favourable, the rise in prices slowed down and towards the end of the year consumption began to increase. The first sign of a resumed trend towards decontrol was the end of tea rationing in October, 1952, and in 1953 the movement gained momentum. Eggs were decontrolled on 26th March; sugar was derationed on 26th September; off-ration sales of fresh meat were permitted from 5th July to 28th November, of bacon from 16th August onwards and of cheese from 20th December onwards. Meat products, cream, home-produced processed cheese, dripping, dried fruit, sweets and animal feeding stuffs were freed from all forms of control, and restrictions on flour milling were removed.

8. The effect of increased supplies is reflected in the average ration levels (normal adult entitlement per week) shown in Table 2.

TABLE 2
Average weekly rations 1950-54

		1950	1951	1952	1953	1953 Percentage change on 1952	1954
Fresh carcase meat (a)	d.	24.5	17.5	20.2	24.7	+22	25.5
Bacon (b)	... oz.	4.4	3.9	4.7	4.9	+4	5.0
Butter (c)	... oz.	4.4	3.7	2.7	3.4	+26	3.6
Margarine (c)	... oz.	4.0	4.0	4.3	4.2	-2	5.0
Cooking fat (c)	... oz.	2.1	2.0	2.0	2.0	0	2.0
Cheese (c)	... oz.	2.0	2.0	1.2	1.8	+50	3.0
Sugar (d)	... oz.	10.6	11.8	10.9	13.3	+22	—
Tea (e)	... oz.	2.3	2.0	2.2	—	—	—

(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 2d. worth for 8 weeks and an additional 6d. worth for 13 weeks. From 21st February, 1954, off-ration sales were permitted of some imported mutton and pork. Meat was derationed from 3rd July, 1954.

(b) Bacon was derationed from 3rd July, 1954.

(c) Butter, margarine, cooking fat and cheese were derationed from 8th May, 1954.

(d) Sugar was derationed from 27th September, 1952.

(e) Tea was derationed from 5th October, 1952.

9. The energy value of supplies moving into consumption, which had tended to fall between 1950 and 1952, was somewhat higher in 1953, and the increase continued in the following year.

10. The supply data given in Table 1 include items of personal consumption which are not covered by the Survey, such as meals and ice-cream obtained outside the home, sweets and soft drinks and also food losses at the retail level.

11. The Ministry of Labour's official statistics of earnings and prices¹ indicate that between 1950 and 1952 average weekly earnings kept pace with the general level of retail prices. In 1953, however, earnings moved ahead, as follows:

		1950	1951	1952	1953	1954
Index of average weekly earnings (a)	...	100	110	119	126	134
Index of retail prices (all items)	... ..	100	110	119	123	125

(a) Based on figures for selected industries in April and October in each year.

¹ Ministry of Labour Gazette, Vol. LXIII, No. 3, March, 1955.

12. As from February, 1952, a revised system of weighting was introduced in the Interim Index of Retail Prices, new weights being based on estimates of consumption in 1950 valued at January, 1952, prices. A continuous "all items" index is available, but the food component calculated on the new basis has not been linked to the earlier series. Comparisons over the period 1950-54 can, however, be made by means of the linked index published in the Bulletin of the London and Cambridge Economic Service, which is in close agreement with an index based on survey estimates of food prices paid by housewives.

	1950	1951	1952	1953	1954
Retail food prices:					
London and Cambridge index	100	111	128	135	139
National Food Survey index	100	112	129	135	138
Household food expenditure (a)	100	113	129	142	148

(a) National Food Survey data including, in 1950 and the first half of 1951, the value of changes in larger stocks.

13. Thus, comparing 1953 with 1952, food prices had risen more than prices generally, and household food expenditure more than food prices. This rise in food expenditure reflects the greater availability and variety of supplies on the one hand, and the rise in real incomes on the other. It appears that domestic consumers devoted a large part of their increased purchasing power to food. This is, indeed, supported by the increase in the estimated proportion of consumer expenditure devoted to food. This increase was not due, as in 1952, almost entirely to higher food prices, but represented an actual rise in consumption.

	1938	1951	1952	1953	1954
Expenditure on food as percentage of estimated total expenditure on consumers' goods and services (a)	29.8	29.9	31.4	32.2	32.6

(a) Based on, and revisions made according to, "National Income and Expenditure" Cmd. 9423.

14. In Table 3 changes in household food expenditure during 1952 and 1953 are related to changes in prices, wage rates and estimated weekly earnings.

TABLE 3
Household Food Expenditure, Wages and Prices, 1952-53

	1952				1953			
	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Weekly wage rates (a)	100	102	102	105	106	106	107	108
Estimated weekly earnings (a) (c)	101	102	103	106	108	108	109	110
Interim Index of Retail Prices:								
All items (a)	100	103	103	104	105	106	106	106
Food (a)	100	106	107	108	110	113	112	110
Household food expenditure (N.F.S.) (b)	100	108	107	112	113	120	119	117

(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 rise in food prices, which had shown signs of coming to a halt in the second half of 1952, was resumed during the first half of 1953. Domestic expenditure on food, which had barely kept pace with food prices during the summer of 1952, began to move ahead of prices towards the end of that year, following a number of substantial wage awards, and attained a new maximum in May, 1953: In the second half of 1953 food prices declined sufficiently to keep the Interim Index stable, though several of its other components, especially services and fuel and light, were increasing. Although wage rates were still rising, household food expenditure tended to decline from the peak reached earlier in the year; the energy value of the national diet, however, continued to increase, and its nutritional level was well maintained.

III. THE HOUSEHOLD DIET IN 1953

FOOD EXPENDITURE AND PRICES

16. Changes in total food expenditure and in the value of food obtained for domestic consumption during the year are shown in Table 4. "Free" food consisted of supplies obtained otherwise than by purchase, from a garden, allotment or farm, or from an employer, or as gifts from abroad. The value of these free supplies at current prices has been added to the household food expenditure to give the estimated "total value of consumption". Expenditure was greatest in the second quarter and value of consumption in the third, though the difference between these periods was small. The seasonal fall in value of consumption between the third and fourth quarters of 1953 was the first decrease since 1951; in 1952 the expected seasonal decline was masked by the continuing upward trend.

TABLE 4
Domestic Food Expenditure and Value of Food obtained for Domestic Consumption, 1953

	per head per week					
	1952	1953				
	Annual Average	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Annual Average
Expenditure on food	s. d. 20 8	s. d. 21 11	s. d. 23 4	s. d. 23 0	s. d. 22 7	s. d. 22 8
Value of free food (a)	10	7	11	1 5	11	11
Total value of consumption ...	21 6	22 6	24 3	24 5	23 6	23 7

(a) Includes withdrawals from stocks of certain home-produced foods.

17. The proportions of expenditure devoted to the main food groups approximated even more closely than in 1952 to those found by Crawford and Broadley before the war. (Chart 1.) The difference for fruit and vegetables, on which 17 per cent. was spent compared with 14 per cent. in the period October, 1936—March, 1937, was largely seasonal; the figure for the corresponding winter months of 1953-54 was under 15 per cent. The main changes in outlay between 1952 and 1953 were increases in the percentages spent on meat, eggs, fats and sugar, because of improved supplies at higher prices, and decreases for cereals, fish and vegetables.

18. Table 5 gives estimates of household expenditure on the main foods during the four quarters of 1953, and shows percentage changes compared with the previous year.

CHART 1

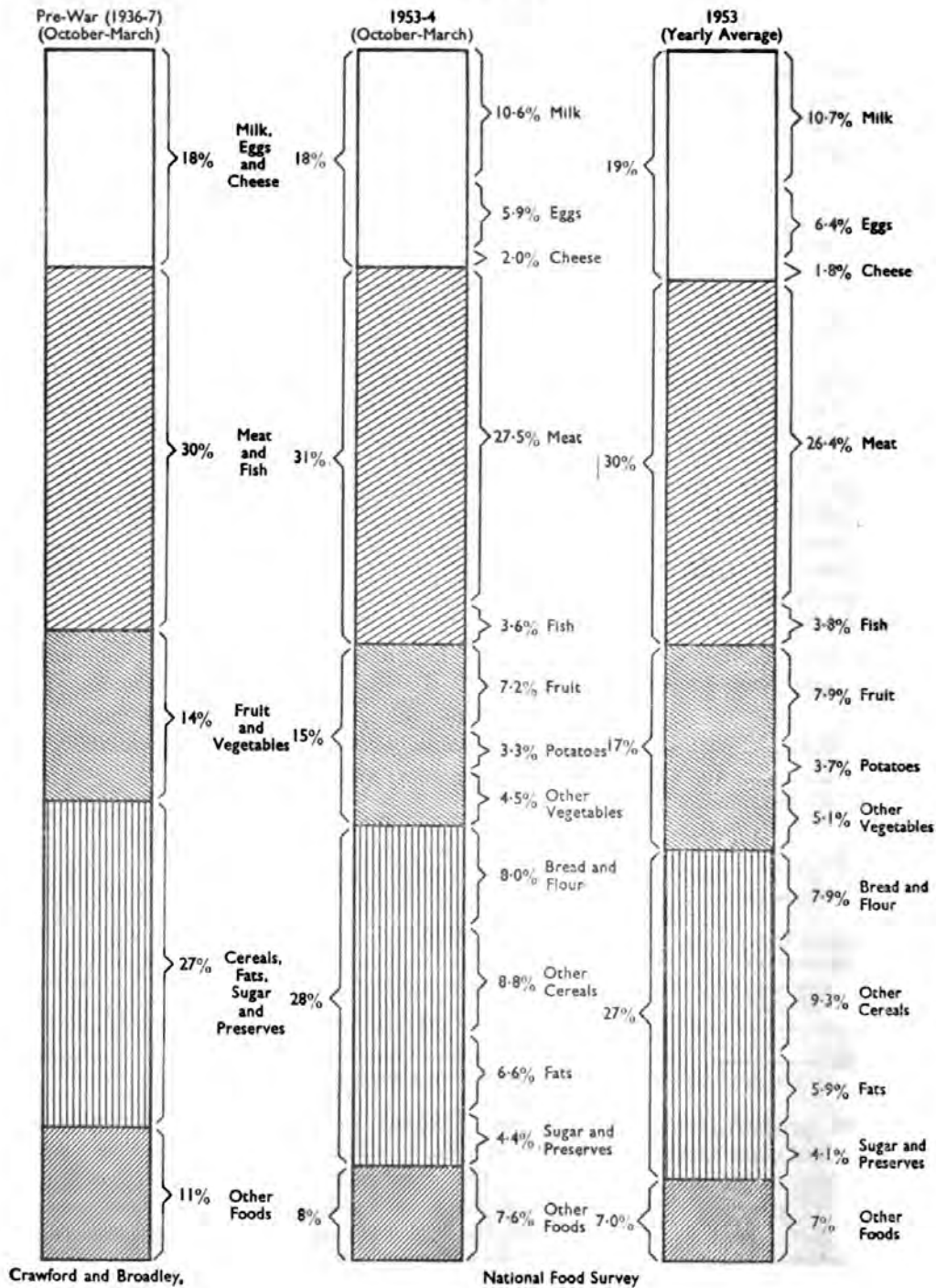


TABLE 5
Domestic Food Expenditure by all Households, 1953

pence per head per week

	1952	1953					Percentage change 1953 on 1952
	Yearly average	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Yearly average	
MILK:							
Liquid, retail ...	24.58	26.18	24.62	26.73	25.55	25.77	+ 5
Liquid, welfare and school ...	1.16	1.12	1.07	1.03	1.04	1.07	- 8
Other milk and cream ...	1.51	2.07	2.66	2.55	1.94	2.30	+ 52
TOTAL MILK ...	27.25	29.37	28.35	30.31	28.53	29.14	+ 7
CHEESE:							
Rationed ...	2.46	2.86	3.35	3.55	3.49	3.31	+ 34
Unrationed ...	1.96	1.67	1.67	1.55	1.50	1.60	- 18
TOTAL CHEESE ...	4.42	4.53	5.02	5.10	4.99	4.91	+ 11
MEAT:							
Carcass ...	22.81	27.10	28.83	36.66	36.67	32.32	+ 42
Bacon ...	13.19	14.61	15.75	15.31	14.94	15.16	+ 15
Other (a) ...	24.14	27.34	25.35	21.88	23.44	24.50	+ 1
TOTAL MEAT ...	60.14	69.05	69.93	73.85	75.05	71.98	+ 20
FISH:							
Fresh and processed	8.28	8.49	7.43	6.58	6.72	7.32	- 12
Prepared (b) ...	3.94	3.05	3.66	2.89	2.59	3.06	- 22
TOTAL FISH ...	12.22	11.54	11.09	9.47	9.31	10.38	- 15
EGGS, shell, hens' ...	11.51	15.68	18.75	18.07	17.77	17.57	+ 53
FATS:							
Butter ...	5.43	7.14	7.32	9.48	8.90	8.21	+ 51
Margarine ...	3.98	4.15	4.27	4.30	5.13	4.46	+ 12
Cooking fats, rationed	2.06	2.29	2.23	2.36	2.55	2.36	+ 15
Other fats ...	0.97	1.12	0.85	0.74	1.06	0.95	- 2
TOTAL FATS ...	12.44	14.70	14.67	16.88	17.64	15.98	+ 28
SUGAR AND PRESERVES:							
Sugar ...	4.32	4.52	5.84	7.09	7.36	6.20	+ 44
Honey, preserves, syrup and treacle	5.85	5.75	5.39	4.58	4.35	5.02	- 14
TOTAL SUGAR AND PRESERVES ...	10.17	10.27	11.23	11.67	11.71	11.22	+ 10

(a) Includes cooked and canned meats and meat products.

(b) Includes cooked, canned and bottled fish and fish products.

TABLE 5—continued

pence per head per week

	1952	1953					Percentage change 1953 on 1952
	Yearly average	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Yearly average	
VEGETABLES:							
Potatoes, including chips and crisps ...	10·13	10·16	13·61	7·97	8·20	9·99	— 1
Fresh green ...	6·00	5·55	6·53	5·46	3·64	5·31	— 12
Other (c) ...	9·28	10·06	9·67	6·65	7·97	8·59	— 7
TOTAL VEGETABLES OTHER THAN POTATOES ...	15·28	15·61	16·20	12·11	11·61	13·90	— 9
TOTAL VEGETABLES	25·41	25·77	29·81	20·08	19·81	23·89	— 6
FRUIT (d):							
Fresh ...	15·02	12·90	18·97	19·56	12·51	16·00	+ 7
Other (e) ...	5·01	3·81	5·44	4·42	8·17	5·47	+ 9
TOTAL FRUIT (d)	20·03	16·71	24·41	23·98	20·68	21·47	+ 7
CEREALS:							
Bread (f) ...	17·26	17·43	18·36	18·05	17·37	17·80	+ 3
Flour ...	3·04	3·27	3·70	3·77	4·01	3·69	+ 21
Cakes (g) ...	11·95	10·94	10·77	10·34	9·73	10·45	— 13
Biscuits ...	7·71	8·28	8·41	8·68	8·37	8·44	+ 9
Other (h) ...	6·48	6·29	6·18	6·54	6·31	6·34	— 2
TOTAL CEREALS...	46·44	46·21	47·42	47·38	45·79	46·72	+ 1
BEVERAGES:							
Tea ...	7·29	8·88	9·14	9·74	10·04	9·45	+ 30
Other ...	3·03	3·40	2·83	2·65	3·16	3·01	— 1
TOTAL BEVERAGES	10·32	12·28	11·97	12·39	13·20	12·46	+ 21
OTHER FOODS ...	7·24	6·72	7·10	6·59	6·69	6·77	— 7
TOTAL ALL FOODS ...	247·59 (20s. 8d.)	262·83 (21s. 11d.)	279·75 (23s. 4d.)	275·77 (23s. 0d.)	271·17 (22s. 7d.)	272·49 (22s. 8d.)	+ 10

(c) Includes dried and canned vegetables and vegetable products.

(d) Includes tomatoes.

(e) Includes dried, canned and bottled fruit.

(f) Includes rolls and French bread.

(g) Includes fruit bread, buns, scones, tea-cakes, muffins and crumpets.

(h) Includes sandwiches.

19. Expenditure was 10 per cent., or nearly 2s. 1d. per head per week, higher than in 1952. The increase was concentrated on a limited number of basic foods which had long been in short supply, particularly the following:

	Increase in expenditure (pence per head per week)	Percentage increase in expenditure
Carcase meat	9·5	42
Eggs, shell, hens'	6·1	53
Butter	2·8	51
Tea	2·2	30
Bacon	2·0	15
Sugar	1·9	44
Total of above foods	24·5	38
Other foods	0·4	0
All foods	24·9	10

Sales of carcass meat off the ration were permitted from 5th July to 28th November. From 5th July to 29th August retailers were permitted to obtain and sell ration-free an additional quantity of meat equivalent to a 2d. ration, and from 30th August to 28th November the equivalent of a 6d. ration. Expenditure on fresh meat rose in consequence to 3s. 3d. per head per week in September, with some diversion of expenditure from unrationed meat and from fish, but then declined steadily to 2s. 11d. in December. Expenditure on unrationed meat rose again as that on rationed meat decreased; purchases of fish, however, continued to decline, although prices remained very firm. An opinion survey showed that in September the demand for carcass meat was met almost in full, though 10 per cent. of housewives still said they would have been willing to spend a little more if meat of the desired cut and quality had been available.

20. Eggs were decontrolled and the consumer subsidy removed on 26th March. Expenditure rose to 1s. 8d. per head per week in May but fell back to 1s. 6d. in June, remaining at approximately that level until the end of the year. The average price paid rose from 4s. 11d. a dozen in April to 6s. 1d. in August before declining to 5s. 4d. in December, but expenditure remained almost constant throughout and it was evident that consumers strongly resisted paying more than an average of 6d. per egg.

21. Expenditure on flour showed an upward trend during the year; the subsidy was removed on 5th April, and on 30th August control was lifted from flour milling. White flour could again be made, but the demand for it and for white bread was very limited. During September purchases of white bread averaged just under a penny per head per week compared with 13·7d. for National bread. The much higher price (6·9d. per lb. compared with an average of 4·6d. per lb. for the National loaf) may have been a deterrent to many housewives. It appears that the smaller demand led some bakers to discontinue the baking of white bread and expenditure fell to 0·6d. in October, 0·5d. in November and 0·4d. in December.

22. The rationing and price control of sugar ended on 26th September. Expenditure on preserves declined as that on sugar increased during the year. There was a continuing tendency for expenditure to be diverted from unrationed to rationed cheese, and from cakes to biscuits. Less was spent on fresh green and other vegetables, but more on fresh and other fruit.

23. Table 6 shows, for each quarter of 1953, and for each of the main food groups, the percentage change in the average prices paid by housewives, compared with the corresponding quarter of 1952. This comparison provides a measure of price movements which is almost unaffected by seasonal variations. The price index used is of the Fisher Ideal type, which allows for changes in the pattern of consumption between the two periods compared. A measure of the changes in the quantities purchased by housewives has been obtained by dividing the expenditure index by this price index. Such a quantity index measures changes in consumer satisfaction rather than in physical volume of purchases; for example, an increase in the proportion of butter in a combined ration of butter and margarine would raise the index. No account has been taken of changes in the quantities of food obtained otherwise than by purchase.

TABLE 6
Changes in average prices and quantities purchased;
Quarters of 1953 compared with corresponding quarters of 1952

	percentage change									
	Price				1953 on 1952	Quantity				1953 on 1952
	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.		1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	
Milk and milk products ...	+ 9	+ 4	+ 4	+ 1	+ 5	+ 1	+ 4	+ 5	+ 2	+ 3
Meat, carcase ...	+16	+12	+ 0	+ 0	+ 6	+31	+40	+35	+30	+35
other (incl. bacon) ...	+ 5	+ 4	- 3	- 7	+ 0	+14	+10	+10	- 3	+ 8
all ...	+ 9	+ 7	- 2	- 4	+ 2	+20	+20	+21	+11	+18
Fish ...	+ 2	+ 0	+ 1	+ 1	+ 1	-11	-13	-18	-22	-16
Eggs ...	+ 2	+ 2	+19	+15	+ 9	+29	+24	+61	+53	+38
Fats ...	+16	+15	+18	+10	+16	+ 4	+ 4	+ 22	+20	+12
Sugar and preserves ...	+ 7	+ 8	+ 9	+ 6	+ 8	- 2	- 1	+ 5	+ 9	+ 2
Vegetables ...	+ 5	+ 9	-10	- 8	- 0	- 1	- 7	- 4	-11	- 6
Fruit ...	- 4	+ 1	+ 9	+ 2	+ 2	+11	+ 6	- 1	+12	+ 5
Cereals ...	+12	+ 4	+ 4	+ 3	+ 6	- 5	- 5	- 3	- 6	- 5
Beverages ...	+14	+13	+ 4	+ 6	+ 9	+11	+13	+ 7	+13	+12
Miscellaneous (a) ...	- 3	- 2	- 7	- 7	- 4	-11	- 5	- 3	-19	-10
All foods(a) ...	+ 8	+ 6	+ 3	+ 1	+ 4.6	+ 6	+ 5	+ 8	+ 5	+5.9

(a) Excludes a few miscellaneous items for which expenditure only was recorded.

24. Food prices continued to rise during the first half of the year but decreased during the second half, so that the average price level at the end of the year was almost the same as a year earlier. Expenditure on the subsidised and formerly subsidised foods continued to increase more rapidly than the average price of those foods. The largest increases were for eggs, carcase meat and fats; the principal decreases for fish, vegetables and miscellaneous foods. Table 7 illustrates this concentration of expenditure on basic foods, including those from which subsidies were removed during 1952 and 1953.

TABLE 7
Changes in expenditure, price and quantity purchased:
Quarters of 1952-53 compared with corresponding quarters of 1951-52

	percentage change						1953 on 1952
	1952		1953				
	3rd Qtr.	4th Qtr.	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	
EXPENDITURE							
Subsidised and formerly subsidised foods (a)	+19	+26	+25	+21	+24	+20	+23
Other foods (b)	+ 3	+ 3	+ 3	- 0	- 4	-11	- 3
All foods (b)	+11	+14	+14	+11	+11	+ 6	+11
PRICE							
Subsidised and formerly subsidised foods (a)	+17	+19	+12	+10	+ 7	+ 3	+ 8
Other foods (b)	+ 8	+ 6	+ 3	+ 1	- 2	- 3	- 0
All foods (b)	+13	+13	+ 8	+ 6	+ 3	+ 1	+ 5
QUANTITY							
Subsidised and formerly subsidised foods (a)	+ 2	+ 6	+12	+11	+17	+16	+14
Other foods (b)	- 5	- 3	- 0	- 1	- 2	- 8	- 3
All foods (b)	- 2	+ 1	+ 6	+ 5	+ 8	+ 5	+ 6

(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 was recorded.

25. It will be seen that the increased expenditure on the basic subsidised and formerly subsidised foods accounted for the whole of the rise in expenditure compared with the previous year. At the beginning of 1953, higher prices and improved supplies were contributing about equally to the increase, but towards the end of the year the upward trend in prices of basic foodstuffs was coming to a halt while supplies of these foods were still improving. Thus the distortion of the pattern of expenditure caused by the combined effect of subsidies and shortages was being steadily eliminated. During the last quarter of the year expenditure on the subsidised and formerly subsidised foods amounted to 60 per cent. of total domestic expenditure on food, compared with 53 per cent. in the fourth quarter of 1952, 48 per cent. in the fourth quarter of 1951, and about 65 per cent. before the war. Expenditure on those foods which remained subsidised at the end of the year, namely, liquid milk, rationed cheese, butter, rationed carcase meat and bacon and National bread, totalled 38 per cent. of household food expenditure during the last quarter.

CONSUMPTION

26. Table 8 summarises domestic consumption per head of the main foods during 1953; annual averages for 1952 are included for comparison. More detailed tables of consumption, expenditure and prices are given for all foods in Appendix B. The percentage changes shown in the last column of the table do not in all cases agree with the corresponding changes in the quantity indices given above, partly because free supplies are included in Table 8 but excluded from Table 6, and partly because the quantity indices also show changes in the quality or composition of the food groups concerned. The seasonal changes shown in Table 8 were in many cases greatly affected by the transition from a controlled to a free pattern of demand.

Milk, Cheese, Eggs, Meat and Fish

27. Domestic milk consumption rose in the first quarter but thereafter showed a slight tendency to decline, the average for the year being only just below the 1952 level. The reintroduction of seasonal changes of $\frac{1}{4}$ d. per pint in the controlled price of liquid milk had little effect on average demand, and appeared to be of less importance than the normal seasonal variation in consumption, including the effect of school holidays.

TABLE 8
Domestic Food Consumption by all Households, 1953

oz. per head per week except where otherwise stated

	1952	1953					Percentage change 1953 on 1952
	Yearly average	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Yearly average	
MILK:							
Liquid, retail (pt.)...	3.96	4.03	4.00	3.97	3.91	3.98	+ 0
Liquid, welfare and school (pt.) ...	0.86	0.84	0.80	0.74	0.82	0.80	-7
Other milk and cream (pt. or eq. pt.) ...	0.26	0.29	0.31	0.30	0.25	0.29	+11
TOTAL MILK (pt.)	5.08	5.16	5.11	5.01	4.98	5.07	- 0
CHEESE:							
Rationed ...	1.60	1.74	2.02	2.13	2.12	2.00	+25
Unrationed...	0.57	0.47	0.52	0.50	0.49	0.50	-12
TOTAL CHEESE ...	2.17	2.21	2.54	2.63	2.61	2.50	+15
MEAT:							
Carcase ...	11.86	13.62	14.05	17.89	17.94	15.86	+34
Bacon ...	4.88	4.75	5.16	5.27	5.44	5.15	+ 6
Other (a) ...	12.25	13.14	11.26	9.62	11.34	11.33	- 8
TOTAL MEAT ...	28.99	31.51	30.47	32.78	34.72	32.34	+12
FISH:							
Fresh and processed	5.87	5.81	5.07	4.51	4.78	5.04	-14
Prepared (b) ...	1.65	1.33	1.43	1.23	1.09	1.26	-24
TOTAL FISH ...	7.52	7.14	6.50	5.74	5.87	6.30	-16
EGGS, shell, hens' (No.)	2.95	3.79	4.64	3.73	3.73	3.97	+35
FATS:							
Butter ...	2.79	3.21	3.28	4.14	3.58	3.56	+28
Margarine ...	4.39	4.15	4.28	4.13	4.56	4.28	- 3
Cooking fats, rationed ...	2.01	2.01	1.94	1.99	2.04	2.00	- 0
Other fats ...	0.59	0.68	0.55	0.55	0.79	0.64	+ 8
TOTAL FATS ...	9.78	10.05	10.05	10.81	10.97	10.48	+ 7
SUGAR AND PRESERVES:							
Sugar ...	11.00	10.20	13.16	15.73	15.20	13.57	+23
Honey, preserves, syrup and treacle	6.05	5.95	5.48	4.66	4.34	5.10	-16
TOTAL SUGAR AND PRESERVES ...	17.05	16.15	18.64	20.39	19.54	18.67	+10

TABLE 8—continued

oz. per head per week except where otherwise stated

	1952	1953					Percentage change 1953 on 1952
	Yearly average	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Yearly average	
VEGETABLES:							
Potatoes, including chips and crisps...	65·94	68·95	60·49	60·67	66·54	64·17	— 3
Fresh green ...	16·37	12·20	14·40	23·92	15·86	16·60	+ 1
Other (c) ...	16·26	18·23	13·81	14·72	17·61	16·07	— 1
TOTAL VEGETABLES OTHER THAN POTATOES ...	32·63	30·43	28·21	38·64	33·47	32·67	+ 0
TOTAL VEGETABLES	98·57	99·38	88·70	99·31	100·01	96·84	— 2
FRUIT (d):							
Fresh ...	21·21	18·71	21·98	27·53	19·18	21·85	+ 3
Other (e) ...	4·18	3·53	4·96	3·59	6·64	4·68	+12
TOTAL FRUIT (d)...	25·39	22·24	26·94	31·12	25·82	26·53	+ 4
CEREALS:							
Bread (f) ...	59·56	56·91	58·87	57·91	55·40	57·26	— 4
Flour ...	8·46	8·63	8·67	8·56	9·15	8·75	+ 3
Cakes (g) ...	7·27	6·68	6·38	5·92	5·90	6·22	—15
Biscuits ...	4·80	5·08	5·11	5·24	4·99	5·10	+ 6
Other (h) ...	5·82	5·79	5·16	5·27	5·50	5·44	— 7
TOTAL CEREALS ...	85·91	83·09	84·19	82·90	80·94	82·77	— 4
BEVERAGES:							
Tea ...	2·21	2·60	2·60	2·68	2·73	2·65	+20
Other ...	0·83	0·87	0·72	0·68	0·79	0·76	— 8
TOTAL BEVERAGES	3·04	3·47	3·32	3·36	3·52	3·41	+12

- (a) Includes cooked and canned meats and meat products.
- (b) Includes cooked, canned and bottled fish and fish products.
- (c) Includes dried and canned vegetables and vegetable products.
- (d) Includes tomatoes.
- (e) Includes dried, canned and bottled fruit.
- (f) Includes rolls and French bread.
- (g) Includes fruit bread, buns, scones, tea-cakes, muffins and crumpets.
- (h) Includes sandwiches.

28. Cream was available from April onwards at a price of about 7s. 9d. per pint, falling to 7s. 1d. in the last quarter, but demand remained small, not exceeding 0·25 oz. per head per week even in July.

29. At the beginning of the year the ordinary cheese ration was still at its lowest level of 1 oz. per week. The entitlement was increased to 1½ oz. on 25th January and to 2 oz. on 17th May, when home-produced processed cheese was derationed. After a temporary reduction to 1½ oz. on 6th September, the ration was raised to 2 oz. on 1st November and further to 3 oz. on 29th November. Until the third quarter consumption had moved in step with changes in entitlement, but during the last quarter it became clear that demand was being fully satisfied. Consumption rose only from 1·96 oz. per head per week in October to 2·10 oz. in November and 2·30 oz. in December.

From 20th December, cheese surplus to ration requirements could be sold freely off the ration. Consumption of the more expensive unrationed cheese tended to decline as the ration increased.

30. Eggs were in good supply after decontrol; consumption during the second quarter actually rose by about 20 per cent. compared with the first quarter and also with the corresponding period of 1952. Part of this increase may, however, be attributable to housewives' reluctance to record black market purchases prior to decontrol. After the spring flush had passed, eggs remained relatively plentiful. The sudden price rise to over 6s. a dozen in August, which was associated with a sharp fall in self-supply, proved to be short-lived. Prices then slowly declined, and consumption during the fourth quarter was as high as in the third at a slightly lower cost. Purchases and self-supply both increased in December and prices eased, probably because of the mild weather.

31. The consumption of fresh meat rose from 13·6 oz. at the beginning of the year to just over 19 oz. in September, the usual peak period for home-killed beef, but declined to just under 17 oz. in December. Supplies of mutton were greatest in June and July. Some canned corned beef was available off the ration from May onwards at nearly 4s. per lb. Most types of unrationed meat and meat products showed a seasonal reduction in consumption in the second and third quarters. Uncooked ham and gammon became available off the ration at an unsubsidised price from 25th January onwards. Consumption of all types of uncooked bacon rose to 5·2 oz. per head per week in the second quarter; price reductions and an extension of off-ration sales led only to a 2 per cent. increase in the third quarter, and a further 3 per cent. in the fourth. Although rationing continued, the demand for bacon then appeared to be satisfied almost in full. The steady decline in the consumption of fish was scarcely arrested by a seasonal recovery in fat fish during the last quarter.

Fats, Cereals, Sugar, Preserves and Beverages

32. The total consumption of fats remained below potential demand, and was conditioned by rationing throughout the year; the average rose from 10 oz. at the beginning of the year to 11 oz. towards the end, reflecting improved supplies.

33. The main change in the cereals group was a further decline in the consumption of cakes and, to a smaller extent, bread, but not of flour or biscuits.

34. The sugar ration was increased from 10 oz. per head per week to 14 oz. on 19th April and 16 oz. on 17th May, including a bonus issue of 4 oz. per week. The 16 oz. entitlement was taken up in full only during July, the month for soft fruit. Many housewives probably accumulated stocks during the summer, for retailers reported a sharp fall in demand during the first few weeks after derationing on 27th September. The Survey confirms that purchases fell to 15·0 oz. per head per week in October, but recovered to 15·2 oz. in November and 15·4 oz. in December. It must, however, be remembered that under rationing some housewives might accumulate stocks while others could not buy as much sugar as they wished. Indeed, an opinion survey before decontrol suggested that the average free demand at current prices would be 16 to 16½ oz., and provisional results for 1954 indicate that this figure was probably not too low.

35. In the somewhat analogous case of the derationing of tea a similar opinion question had indicated a free demand of nearly 2·8 oz. per head per week; this level was attained, but not until early in 1954. During the last quarter of 1952, after the end of tea rationing on 5th October, purchases

amounted to only 2·37 oz., no doubt because larger stocks were being used up, but the average quantity increased to 2·60 oz. in the first two quarters of 1953, to 2·68 oz. in the third quarter and 2·73 oz. in the fourth. Purchases of ground coffee and coffee extracts were lower than in 1952.

Fruit and Vegetables

36. Full details of seasonal changes in the consumption of fruit were given in paragraphs 35–40 of the Annual Report for 1952, and a similar detailed treatment is not justified in the present report. In spite of adverse weather, consumption of fruit during 1953 was higher than in the previous year, except during the autumn flush period. Oranges were cheaper and more plentiful than in 1952; the average price increased from 8d. per lb. in February and March to 11½d. in August, but fell to 10¼d. during the last quarter. Consumption reached a maximum of 6·1 oz. per head per week in March and declined to 2·0 oz. in September, recovering only to 2·6 oz. in December in spite of the lower price. During the early months of 1953 apples were also cheaper than in 1952, but in the second half of the year consumption was lower than in the previous year and prices somewhat higher. The seasonal maximum in the consumption of home-grown apples occurred in October, a month later than in 1952, and was less sharply defined. The peak in home-grown tomatoes was also later. Stone fruit was scarce and much dearer than a year before; consumption was less than 5 oz. per head per week even in August, and prices remained above 10d. per lb. The soft fruit season was short; the average price fell to 1s. 5½d. per lb. in July, when consumption was 6 oz. per head per week, but in August consumption was only 1 oz. and the price rose to over 2s. 1d. per lb. Bananas were more abundant than in 1952, but prices were appreciably higher, reaching 1s. 5¼d. per lb. in August; thereafter consumption continued to rise from just under 3 oz. to a maximum of 3·5 oz. per head per week in November, though prices fell only slightly.

37. The consumption of canned and bottled fruit (including home-bottled fruit, recorded when it was withdrawn from store) was highest in the months of June, November and December. Dried fruit had a somewhat similar seasonal variation, with maxima in April, November and December. Supplies of canned and bottled fruit were some 30 per cent., and of dried fruit nearly 40 per cent. greater than in 1952, but consumption of nuts and fruit and nut products was 20 per cent. lower.

38. Domestic consumption of potatoes was slightly lower than in the previous year. The price of new potatoes rose to 9·6d. per lb. in May and was still 6·8d. in June. The replacement of old potatoes by new occurred somewhat later than in 1952; hence total consumption was as low in July as in June, and old potatoes were still bought in August.

39. Consumption of fresh green vegetables was about the same as in 1952. The seasonal variation in cabbage was more clearly seen; the average price rose to 8·5d. per lb. in April and declined to 3·8d. by August. Two peaks in consumption occurred in June and October. Cauliflower consumption was greatest in April and October with prices falling from 10·6d. per lb. in March to 5·5d. in September. The consumption of sprouts rose to 7·6 oz. per head per week in December, when the average price fell to 4·7d. per lb. Supplies of fresh peas and beans were somewhat greater than in 1952; in July consumption rose to over 19 oz. per head per week, of which 8·5 oz. were “free” and 10·6 oz. purchased at an average price of only 5·8d. per lb. Carrots were also cheaper and more plentiful. The demand for other root vegetables, onions, canned vegetables and dried pulses and vegetable products was less than in 1952, although prices were somewhat lower.

ENERGY VALUE AND NUTRIENT CONTENT

40. The energy value and nutrient content of the household diet in 1953 has been calculated by the methods described in previous reports. The figures shown in Table 9 represent the nutritive value of the edible portion of food, purchased or obtained free, for consumption at home or in packed meals carried and eaten 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 vitamins B₁ and C, according to the recommendations of the Medical Research Council. Welfare cod liver oil and vitamin A and D tablets have been excluded from the totals.

41. Table 9 shows the quarterly averages for all households during 1953 and the annual averages for 1952 and 1953. Except for calcium and vitamin C for which the annual averages remained almost constant, and for vitamin D which showed a 6 per cent. fall, there was a general increase in the energy and nutritive value of the diet in 1953 compared with 1952. The increases

TABLE 9
Energy Value and Nutrient Content of Domestic Food Consumption
All Households, 1953

			per head per day					
			1952 Yearly average	1953				Yearly average
				1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	
Energy value	...	Cal.	2,447	2,456	2,504	2,559	2,562	2,520
Total protein	...	g.	77	78	78	79	79	78
Animal protein	...	g.	38	39	40	40	41	40
Fat	...	g.	94	98	99	102	104	101
Carbohydrate	...	g.	324	316	325	331	328	325
Calcium	...	mg.	1,043	1,040	1,059	1,035	1,028	1,040
Iron	...	mg.	13.0	13.0	13.2	13.6	13.3	13.3
Vitamin A	...	i.u.	3,551	3,601	3,755	4,010	3,976	3,836
Vitamin B ₁	...	mg.	1.28	1.29	1.30	1.35	1.30	1.31
Riboflavin	...	mg.	1.64	1.66	1.66	1.68	1.66	1.66
Nicotinic acid	...	mg.	12.9	13.3	12.8	13.7	13.6	13.3
Vitamin C	...	mg.	53	43	49	72	49	53
Vitamin D	...	i.u.	148	136	145	137	140	139

were small with the exception of those for animal protein (5 per cent.), fat (7 per cent.) and vitamin A (8 per cent.). The slight downward trend in the energy content of the average household diet was reversed in 1953, and provisional figures for 1954 indicate a continued rise.

	1950	1951	1952	1953	1954
Energy value of the household diet (calories per head per day)	2,474	2,466	2,447	2,520	2,610
Energy value as percentage of recommended allowance (a)	101	100	99	101	104

(a) An adjustment, fixed at 10 per cent. as in previous years, has been applied to allow for plate and other wastage within the home.

42. The values for the first and second quarters of 1953 were closely similar to those for the second half of 1952, but during the third and fourth quarters the consumption of cheese, meat, bacon, butter, margarine and sugar rose, and these increases were mostly responsible for the change in the average figures for 1953. At the same time there were slight decreases in the consumption of fish, bread and liquid milk between the first and the second half of the year; in spite of these the amount of calcium remained fairly constant, but the vitamin D intake fell. The highest average values for most nutrients occurred in the third quarter; for the remainder, except for calcium, it was in the fourth quarter. In the main, therefore, the nutritive value of the average household diet showed a general increase in the second half of the year.

43. Table 10 gives figures illustrating the adequacy of the average household diet for the four seasons by comparison with allowances based on the recommendations of the British Medical Association.¹ In this comparison adjustments have been made for meals taken outside the home, and a deduction of 10 per cent. has been applied to make allowance for plate and other wastage or spoilage of edible food² 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.

44. The estimates in Table 10 suggest that the average diet was adequate throughout the year. It will be seen that the annual estimates for 1953 exceeded the 1952 averages for energy and all nutrients except calcium and vitamin C, which were almost unchanged. Except for calcium, the highest percentages were found in either the third or fourth quarters. For energy value there was a steady rise in the percentages, which is no doubt understated, since sweets are not included in the survey data. The additional contribution from sweets, which were derationed in February, 1953, was greater than in previous years. The national average consumption was 8·1 oz. per head per week (150 calories per day) in 1953 compared with 5·7 oz. (100 calories) in 1952.

TABLE 10
Comparison of the Energy Value and Nutrient Content of Domestic Food
Consumption with Standards based on the British Medical Association's
Recommendations
All Households, 1953

	1952 Yearly average	1953					Yearly average
		1st Quarter	2nd Quarter	3rd Quarter	4th Quarter		
		per cent.					
Energy value	99	99	100	102	103	101	
Total protein	104	105	104	105	106	105	
Calcium	108	109	111	106	107	108	
Iron	106	104	106	109	108	107	
Vitamin A	148	150	157	166	166	160	
Vitamin B ₁	131	131	130	135	131	132	
Riboflavin	109	110	109	110	110	110	
Nicotinic acid	131	135	129	137	138	135	
Vitamin C (a)	244	195	223	324	227	242	

(a) Use of the vitamin C allowances recommended by the National Research Council of the U.S.A., which are over three times those of the British Medical Association, would result in markedly lower percentages here and in Tables 19 and 29.

¹ British Medical Association: Report of Committee on Nutrition, 1950.

² *Domestic Food Consumption and Expenditure, 1950*: H.M.S.O., 1952, paragraph 98.

45. The balance of the diet may be assessed by evaluating the proportions of calories from protein, fat and carbohydrate. A comparison with 1952 reveals small reductions in the percentages derived from protein and carbohydrate with a corresponding increase in that from fat. Table 11 shows that this trend was most apparent during the latter part of 1953.

TABLE 11
Percentage of Energy Value derived from Protein, Fat and Carbohydrate
All Households, 1953

	1952 Yearly average	1953					Yearly average
		1st Quarter	2nd Quarter	3rd Quarter	4th Quarter		
Protein	12·6	12·7	12·4	12·3	12·3	12·4	
Fat	34·5	35·9	35·7	35·9	36·6	36·0	
Carbohydrate ...	52·9	51·4	51·9	51·8	51·1	51·6	

URBAN AND RURAL HOUSEHOLDS

Composition of the Sample

46. Until January, 1953, a rural household was defined as a household in a Rural District in a predominantly rural parliamentary constituency—i.e. one in which most of the population lived in Rural Districts. The rural parts of predominantly urban constituencies were not sampled, but from February, 1953 onwards this limitation was removed and during the remainder of the year a rural household was defined simply as a household in a Rural District. The only large rural areas not represented in the Survey were the Highlands and Islands of Scotland and the remoter parts of Wales. Rural households included 21·1 per cent. of all persons in the sample in 1952 and 21·6 per cent. in 1953. The composition of the urban and rural samples for 1952 was given in Appendix A of the Annual Report for that year; corresponding particulars for 1953 are shown in Appendix A of the present Report. The small reduction in average household size which followed the changes in fieldwork introduced in 1953 was confined to urban areas.

47. The rural sample differed from the urban in containing fewer persons living in Class B households and more in Class D. The percentages for 1953 were as follows:

Social Class	Proportion of households		Proportion of persons	
	Urban	Rural	Urban	Rural
A	5·9	5·9	6·3	6·3
B	24·1	20·7	26·9	21·8
C	39·5	39·3	43·4	43·5
D (excluding O.A.P.) ...	23·3	27·4	20·1	25·1
O.A.P.	7·2	6·7	3·4	3·3
All households	100·0	100·0	100·0	100·0

Rural households contained a relatively high proportion of adult male workers whose occupation was classified as active or very active (Table 12); hence their requirements for energy and some nutrients were greater than those of urban households.

TABLE 12
Age and Sex Distribution of Persons in
Urban and Rural Households

Category	per cent.			
	Urban		Rural	
	1952	1953	1952	1953
Children under 14	25.5	24.3	24.4	25.5
Adolescents, 14-20 inclusive (a) ...	8.3	8.0	7.5	7.8
Men, 21-64, sedentary	10.3	10.8	7.6	7.0
moderately active	12.0	12.1	7.8	8.4
active or very active... ..	4.4	4.1	11.1	11.4
Men, 65 and over	3.9	3.9	5.4	4.9
Women, 21-59, sedentary	20.7	20.2	22.0	21.1
moderately active,				
active or pregnant	6.6	7.9	5.2	5.5
Women, 60 and over	8.2	8.6	8.9	8.4
	100.0	100.0	100.0	100.0
Total persons	32,595	28,810	8,712	7,946

(a) The proportions of adolescents were, of course, affected by National Service.

Expenditure and Consumption

48. In 1952 and 1953 food expenditure per head was 9-12 per cent. higher in urban than in rural households, but as free supplies were over five times as great in the latter, the difference in the total value of consumption was less than 2 per cent., amounting to only about 4d. per head per week. Quarterly estimates for both years are given in Table 13.

TABLE 13
Food Expenditure and Value of Consumption in
Urban and Rural Households, 1952-53

	per head per week (to the nearest penny)								
	Urban households			Rural households			All households		
	Expen- diture	Value of free food (a)	Value of Con- sumption	Expen- diture	Value of free food (a)	Value of Con- sumption	Expen- diture	Value of free food (a)	Value of Con- sumption
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1952									
1st Quarter	19 8	3	19 11	18 0	1 11	19 11	19 4	7	19 11
2nd Quarter	21 5	3	21 8	19 6	2 8	22 2	20 11	10	21 9
3rd Quarter	21 1	9	21 10	19 2	3 5	22 7	20 8	1 4	22 0
4th Quarter	21 10	3	22 1	20 8	1 5	22 1	21 7	6	22 1
Yearly average	21 0	5	21 5	19 4	2 4	21 8	20 8	10	21 6
1953									
1st Quarter	22 3	3	22 6	20 2	2 1	22 3	21 11	7	22 6
2nd Quarter	23 11	5	24 4	21 3	2 7	23 10	23 4	11	24 3
3rd Quarter	23 8	9	24 5	21 0	3 2	24 2	23 0	1 5	24 5
4th Quarter	23 3	5	23 8	20 7	2 7	23 2	22 7	11	23 6
Yearly average	23 3	6	23 9	20 9	2 7	23 4	22 8	11	23 7

(a) Includes value of withdrawals from larder stocks of certain home-produced foods.

49. Expenditure on food tended to be seasonally high in the towns during May, June and July; the variation in rural areas was less regular, but in both years a peak occurred in May. The seasonal pattern was, of course, masked to a considerable extent by the upward trend of expenditure, which remained pronounced up to the last months of 1953.

50. Although the total value of food obtained for consumption was nearly the same in rural as in urban households, there were substantial differences in the patterns of consumption (Table 14) and expenditure (Table 15). In both 1952 and 1953 rural households obtained more bread and flour, milk, cheese and eggs, fresh green vegetables and preserves, but less potatoes and other vegetables, unrationed meat and tea, and much less fish, no doubt because of difficulties of distribution from the large markets which handle a substantial proportion of the trade. Rural households also consumed rather less fresh fruit than urban households, but more canned and bottled fruit because of home bottling. For some controlled foods, particularly sugar and rationed fats, the differences were small.

TABLE 14
Domestic Food Consumption by Urban and Rural Households 1952-53

oz. per head per week except where otherwise stated

	Urban households		Rural households		All households	
	1952	1953	1952	1953	1952	1953
MILK:						
Liquid, retail (pt.)	3·93	3·92	4·08	4·23	3·96	3·98
Liquid, welfare and school (pt.)	0·89	0·80	0·74	0·75	0·86	0·80
Other milk and cream (pt. or eq. pt.)	0·26	0·28	0·26	0·26	0·26	0·29
TOTAL MILK AND CREAM	5·08	5·00	5·08	5·24	5·08	5·07
CHEESE:						
Rationed	1·48	1·91	2·03	2·41	1·60	2·00
Unrationed	0·57	0·50	0·53	0·48	0·57	0·50
TOTAL CHEESE	2·05	2·41	2·56	2·89	2·17	2·50
MEAT:						
Carcass	11·93	16·13	11·61	14·97	11·86	15·86
Bacon	4·99	5·22	4·45	4·88	4·88	5·15
Other(a)	12·39	11·44	11·74	11·12	12·25	11·33
TOTAL MEAT	29·31	32·79	27·80	30·97	28·99	32·34
FISH:						
Fresh and processed	6·01	5·29	5·34	4·24	5·87	5·04
Prepared(b)	1·68	1·35	1·53	0·91	1·65	1·26
TOTAL FISH	7·69	6·64	6·87	5·15	7·52	6·30

(a) Includes cooked and canned meats and meat products.

(b) Includes cooked, canned and bottled fish and fish products.

TABLE 14—continued

	Urban households		Rural households		All households	
	1952	1953	1952	1953	1952	1953
Eggs, shell, hens' (No.)	2.76	3.89	3.56	4.33	2.95	3.97
FATS:						
Butter	2.79	3.53	2.82	3.62	2.79	3.56
Margarine	4.41	4.30	4.32	4.23	4.39	4.28
Cooking fats, rationed	2.02	1.99	1.92	2.01	2.01	2.00
Other fats	0.61	0.66	0.54	0.58	0.59	0.64
TOTAL FATS	9.83	10.48	9.60	10.44	9.78	10.48
SUGAR AND PRESERVES:						
Sugar	11.14	13.62	10.43	13.40	11.00	13.57
Honey, preserves, syrup and treacle	5.88	4.98	6.63	5.77	6.05	5.10
TOTAL SUGAR AND PRESERVES	17.02	18.60	17.06	19.17	17.05	18.67
VEGETABLES:						
Potatoes (including chips and crisps)	67.05	64.88	62.05	60.14	65.94	64.17
Fresh green	16.33	16.28	16.56	17.52	16.37	16.60
Other(c)	16.59	16.55	15.19	14.40	16.26	16.07
Total vegetables other than potatoes	32.92	32.83	31.75	31.92	32.63	32.67
TOTAL VEGETABLES	99.97	97.71	93.80	92.06	98.57	96.84
FRUIT(d):						
Fresh	21.60	22.35	19.74	19.92	21.21	21.85
Other(e)	4.02	4.62	4.80	4.94	4.18	4.68
TOTAL FRUIT(d)	25.62	26.97	24.54	24.86	25.39	26.53
CEREALS:						
Bread(f)	57.98	55.48	65.26	63.30	59.56	57.26
Flour	8.04	8.33	10.14	10.34	8.46	8.75
Cakes(g)	7.02	6.25	8.23	6.18	7.27	6.22
Biscuits	4.84	5.20	4.69	4.85	4.80	5.10
Other(h)	5.84	5.39	5.77	5.73	5.82	5.44
TOTAL CEREALS	83.72	80.65	94.09	90.40	85.91	82.77
BEVERAGES:						
Tea	2.24	2.70	2.11	2.46	2.21	2.65
Other	0.83	0.76	0.80	0.78	0.83	0.76
TOTAL BEVERAGES	3.07	3.46	2.91	3.24	3.04	3.41

(e) Includes canned and dried vegetables and vegetable products. (d) Includes tomatoes.
 (e) Includes dried, canned and bottled fruit. (f) Includes rolls and French bread.
 (g) Includes fruit bread, buns, scones, tea-cakes, muffins and crumpets.
 (h) Includes sandwiches.

TABLE 15
Domestic Food Expenditure by Urban and Rural Households 1952-53

pence per head per week

	Urban households		Rural households		All households	
	1952	1953	1952	1953	1952	1953
MILK:						
Liquid, retail	25·14	26·43	22·45	23·43	24·58	25·77
Liquid, welfare and school	1·21	1·09	0·99	0·96	1·16	1·07
Other milk and cream	1·57	2·36	1·31	2·12	1·51	2·30
TOTAL MILK AND CREAM ...	27·92	29·88	24·75	26·51	27·25	29·14
CHEESE:						
Rationed	2·28	3·15	3·12	3·98	2·46	3·31
Unrationed	1·99	1·60	1·82	1·55	1·96	1·60
TOTAL CHEESE	4·27	4·75	4·94	5·53	4·42	4·91
MEAT:						
Carcase	22·90	32·90	22·51	30·34	22·81	32·32
Bacon	13·45	15·35	12·20	14·34	13·19	15·16
Other(a)	24·81	25·20	21·65	21·91	24·14	24·50
TOTAL MEAT	61·16	73·45	56·36	66·59	60·14	71·98
FISH:						
Fresh and processed	8·41	7·62	7·77	6·36	8·28	7·32
Prepared(b)	4·08	3·22	3·42	2·28	3·94	3·06
TOTAL FISH	12·49	10·84	11·19	8·64	12·22	10·38
EGGS, shell, hens'	12·16	18·88	9·20	12·98	11·51	17·57
FATS:						
Butter	5·45	8·25	5·35	8·05	5·43	8·21
Margarine	4·00	4·48	3·90	4·42	3·98	4·46
Cooking fats, rationed	2·09	2·36	1·97	2·39	2·06	2·36
Other fats	0·98	0·95	0·95	0·90	0·97	0·95
TOTAL FATS	12·52	16·04	12·17	15·76	12·44	15·98
SUGAR AND PRESERVES:						
Sugar	4·37	6·22	4·10	6·14	4·32	6·20
Honey, preserves, syrup and treacle	5·76	4·93	6·26	5·53	5·85	5·02
TOTAL SUGAR AND PRESERVES	10·13	11·15	10·36	11·67	10·17	11·22
VEGETABLES:						
Potatoes (including chips and crisps)	10·88	10·80	7·26	6·80	10·13	9·99
Fresh green	6·77	6·04	3·18	2·54	6·00	5·31
Other(c)	9·75	9·07	7·65	6·74	9·28	8·59
Total vegetables other than potatoes	16·52	15·11	10·83	9·28	15·28	13·90
TOTAL VEGETABLES ...	27·40	25·91	18·09	16·08	25·41	23·89

- (a) Includes cooked and canned meats and meat products.
 (b) Includes cooked, canned and bottled fish and fish products.
 (c) Includes canned and dried vegetables and vegetable products.

TABLE 15—continued

	Urban households		Rural households		All households	
	1952	1953	1952	1953	1952	1953
FRUIT(d):						
Fresh	15·77	16·85	12·64	12·98	15·02	16·00
Other(e)	4·90	5·51	5·19	5·21	5·01	5·47
TOTAL FRUIT	20·67	22·36	17·83	18·19	20·03	21·47
CEREALS:						
Bread(f)	16·87	17·41	18·72	19·13	17·26	17·80
Flour	2·90	3·51	3·59	4·33	3·04	3·69
Cakes(g)	11·54	10·47	13·55	10·44	11·95	10·45
Biscuits	7·74	8·60	7·71	7·98	7·71	8·44
Other(h)	6·53	6·29	6·29	6·56	6·48	6·34
TOTAL CEREALS	45·58	46·28	49·86	48·44	46·44	46·72
BEVERAGES:						
Tea	7·38	9·62	6·96	8·82	7·29	9·45
Other	3·04	2·96	3·00	3·18	3·03	3·01
TOTAL BEVERAGES	10·42	12·58	9·96	12·00	10·32	12·46
MISCELLANEOUS	7·19	6·80	7·41	6·74	7·24	6·77
TOTAL ALL FOODS	251·93 (21s. 0d.)	278·92 (23s. 3d.)	232·12 (19s. 4d.)	249·13 (20s. 9d.)	247·59 (20s. 8d.)	272·49 (22s. 8d.)

(d) Includes tomatoes.

(e) Includes canned, dried and bottled fruit.

(f) Includes rolls and French bread.

(g) Includes fruit bread, buns, scones, tea-cakes, muffins and crumpets.

(h) Includes sandwiches.

Prices

51. The general level of food prices in 1953 was practically the same in rural as in urban areas. A price index comparing the two has been computed for each quarter and for the whole year. In Table 16 rural price levels are expressed as percentages of the corresponding urban prices. The index used is of the Fisher Ideal type, and is the geometric mean of an urban-weighted and rural-weighted index; these differed little, but there may have been differences in quality, which could not be taken into account. Indices of expenditure and value of consumption are also shown in Table 16 together with a quantity index, obtained by dividing the expenditure by the price index, and therefore relating only to purchases, not to free supplies. The average price paid for fish was 5 per cent. higher in the rural than in the urban sample, and the quantity obtained 26 per cent. lower. Seasonal variation in the rural sample was greatest for vegetables, the quarterly indices for this group (with values for urban households taken as 100) being:

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Price	97	102	108	99
Quantity purchased	64	71	54	54

These values indicate that purchases of vegetables by rural households were relatively smaller in the second half of the year, when garden produce was more plentiful. In the third quarter, when free supplies were greatest in both urban and rural households, vegetable prices were uniformly higher in rural than in urban areas (for example, cabbage 4·7d. per lb. compared with 4·0d., cauliflower 7·4d. against 6·1d.).

TABLE 16

Domestic Food Expenditure, Value of Consumption, Quantities Purchased and Prices Paid by Rural Households expressed as percentages of those of Urban Households, 1953

	Expenditure index	Value of Consumption index	Index of quantities purchased	Price index
All milk and milk products ...	93	108	94	99
Meat—				
carcase	94	95	95	99
other (including bacon) ...	89	93	89	99
all	91	93	92	99
Fish	77	77	74	105
Eggs	69	106	68	101
Fats	100	102	99	101
Sugar and preserves	104	107	103	101
Vegetables	62	93	61	102
Fruit	83	100	80	104
Cereals	104	104	105	99
Beverages	96	96	95	101
Miscellaneous foods(a) ...	96	101	94	103
All foods(a)	89	99	89	100·4

(a) Excludes items for which only expenditure is recorded.

Free Supplies

52. Since average prices were nearly uniform, the differences between urban and rural diets were attributable mainly to the differing incidence of free supplies (see paragraph 16). Free supplies of milk, cream, butter, rabbits and game were of course practically confined to the rural areas, and in 1953 self-supplied poultry and eggs were over seven times as great in the rural households, which actually consumed more eggs per head than the urban sample although their expenditure on eggs was nearly one-third lower. Free supplies of the principal fruits and vegetables were from three to six times as great in the country; for tomatoes, however, the towns compared more favourably. Some free food was recorded during the two years under review for 92 of the 105 food codes;¹ Table 17 includes all those foods for which the quantity obtained free exceeded 0·05 oz. (or pt. or equivalent pt.) per head per week for either urban or rural households in 1953. For the purpose of calculating the total value of food obtained for consumption, these supplies have been valued at the full retail price paid by the group of households in question.

¹ Excluding welfare and school milk, welfare foods and items for which only expenditure was recorded.

TABLE 17

Free supplies in Urban and Rural Households, 1952-53

oz. per head per week except where otherwise stated.

	Urban households		Rural households		All households	
	1952	1953	1952	1953	1952	1953
Liquid milk, full price (pt.) ...	0·01	0·01	0·51	0·71	0·12	0·16
Liquid milk, welfare and school (pt.)	0·19	0·18	0·17	0·19	0·19	0·19
Other milk and cream (pt. or eq. pt.)	...	...	0·02	0·02	0·01	...
Butter ...	...	...	0·08	0·18	0·02	0·04
Eggs, shell, hens' ... No.	0·18	0·23	1·58	1·81	0·50	0·57
Honey and preserves ...	0·04	0·06	0·31	0·25	0·10	0·11
Carcase meat, bacon and offals ...	0·02	0·01	0·06	0·09	0·03	0·01
Poultry ...	0·03	0·06	0·39	0·42	0·11	0·14
Rabbit, game and other meat ...	0·01	...	0·33	0·30	0·08	0·06
Fish ...	...	0·07	...	0·04	...	0·06
VEGETABLES—						
Cabbages ...	1·05	1·24	3·86	4·68	1·63	1·98
Brussels sprouts ...	0·37	0·41	1·42	1·95	0·58	0·70
Cauliflower ...	0·16	0·18	0·91	0·95	0·31	0·37
Leafy salads ...	0·23	0·29	0·69	0·82	0·33	0·41
Fresh legumes ...	0·96	1·14	3·22	3·76	1·47	1·78
Other fresh green vegetables ...	0·08	0·13	0·48	0·41	0·16	0·19
Potatoes, old and new ...	2·95	3·18	17·72	19·58	6·04	6·83
Carrots ...	0·12	0·22	0·68	0·91	0·24	0·38
Other root vegetables ...	0·42	0·39	1·45	1·47	0·64	0·61
Onions, shallots, etc. ...	0·14	0·20	0·61	0·86	0·24	0·34
Miscellaneous fresh vegetables	0·12	0·18	0·50	0·56	0·20	0·26
FRUIT(a)—						
Apples and pears ...	0·39	0·60	2·89	2·04	0·91	0·94
Stone fruit ...	0·10	0·07	0·40	0·19	0·17	0·10
Soft fruit ...	0·40	0·38	0·87	1·19	0·51	0·58
Tomatoes, fresh ...	0·22	0·35	0·28	0·54	0·24	0·40
Other fresh fruit ...	0·36	0·44	0·98	1·13	0·49	0·60
Canned and bottled fruit(a) ...	0·18	0·20	0·90	0·84	0·33	0·33

(a) Includes tomatoes.

Energy Value and Nutrient Content

53. Table 18 shows the average nutritive value of urban and rural household diets in 1952 and 1953. The general improvement in the national diet between 1952 and 1953 was shared by urban and rural households, the most important increases being those for animal protein, fat and vitamin A. It has already been stated that the rural sample contained more adults classified as active or very active, so that, as would be expected, the energy values of the household diets were greater in rural than in urban households. The main differences between the values for rural and urban household diets were the higher calcium and carbohydrate in the former and vitamin C in the latter. The consistency of the differences between the diets of rural and urban households over the two years is illustrated by percentages given in Table 18. The rural diet was more affected than the urban by seasonal changes; for example, the vitamin C intake in rural households was above the corresponding urban figure in the third quarter (the seasonal peak) though well below during the rest of the year.

TABLE 18
Energy Value and Nutrient Content of Domestic Food Consumption
Urban and Rural Households, 1952-53

per head per day

	Urban households		Rural households		Rural diets as percentage of Urban diets	
	1952	1953	1952	1953	1952	1953
					Per cent.	Per cent.
Energy value ... Cal.	2,426	2,502	2,514	2,593	104	104
Total protein ... g.	77	78	80	81	104	104
Animal protein ... g.	38	40	38	40	100	100
Fat ... g.	94	101	93	100	99	99
Carbohydrate ... g.	319	320	339	342	106	107
Calcium ... mg.	1,031	1,024	1,092	1,106	106	108
Iron ... mg.	12.9	13.2	13.4	13.5	104	102
Vitamin A(a) ... i.u.	3,546	3,844	3,505	3,806	99	99
Vitamin B ₁ (b) ... mg.	1.27	1.30	1.31	1.34	103	103
Riboflavin ... mg.	1.63	1.66	1.66	1.68	102	101
Nicotinic acid ... mg.	12.9	13.4	13.0	13.3	101	99
Vitamin C(b)(c) ... mg.	54	54	51	51	94	94
Vitamin D(a) ... i.u.	147	140	150	136	102	97

(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.

54. The assessment of these household diets by comparison with the recommended allowances is shown in Table 19. For both years, the average diets were adequate for energy value and all nutrients, the most interesting feature being the higher percentages for calcium in rural households which consumed more bread and flour, milk and cheese. The percentages for vitamins were, on the whole, slightly higher in urban diets and those for minerals in rural diets, while those for total protein and energy were almost the same in both types of household for the two years.

TABLE 19
Energy Value and Nutrient Content of Domestic Food Consumption, 1952-53,
as Percentage of Standards based on the British Medical Association's
Recommendations

per cent.

	Urban households		Rural households	
	1952	1953	1952	1953
Energy value ...	98	101	99	101
Total protein ...	104	106	106	106
Calcium ...	107	107	113	114
Iron ...	105	107	107	108
Vitamin A ...	149	161	145	157
Vitamin B ₁ ...	130	133	130	131
Riboflavin ...	109	110	108	108
Nicotinic acid ...	132	136	129	130
Vitamin C ...	246	245	231	231

55. The greater consumption of bread and flour in rural households was mainly responsible not only for their greater calcium intake but for the higher proportions in rural households of energy from carbohydrate and of protein from vegetable sources. There were no appreciable differences in intake of fat or animal protein between the two types of household in either year. Rural households merely obtained most of their additional energy needs from bread and flour which provided extra carbohydrate and vegetable protein.

TABLE 20
Percentage of Energy Value of Diets derived from Protein, Fat and Carbohydrate, Urban and Rural Households, 1952-53
per cent.

	Urban households		Rural households	
	1952	1953	1952	1953
Protein	12·6	12·4	12·7	12·4
Fat	34·8	36·4	33·4	34·9
Carbohydrate	52·6	51·2	53·9	52·7
Animal protein as percentage of total protein	48·9	51·6	47·2	49·4

IV. HOUSEHOLD DIETS OF SOCIAL CLASSES

Classification

56. In 1953, as in previous years, the definition of social class was based on the gross income of the head of the household, but, as was foreshadowed in the Annual Report for 1952, the income grades used were revised as shown below to take account of the general rise in money incomes since 1950.

Social Class	Gross weekly income of head of household	
	1950-52	1953
A	Over £13	Over £15
B	£8 to £13	£9 to £15
C	£4 10s. to £8	£6 to £9
D	Under £4 10s.	Under £6

57. It was found that during 1952 the proportion of households falling into the various household composition groups did not vary greatly with the income of the head of the household for income levels above £6 per week. Below this level, households tended to be smaller and to include relatively fewer children and adolescents, and fewer earners. It appeared reasonable, therefore, to take £6 per week as the upper limit of Class D. This income was also the approximate minimum wage for an adult male in full-time employment.

58. The other points of subdivision were taken at £9 and £15 per week; the former was chosen after trial in order to strengthen the statistical significance of the difference between Classes B and C. It is desirable to choose points on the income scale to define social classes in such a way that the differences between the average expenditure for these classes are highly significant on a

quarter's data; thus the numbers of households in each social class are important, as well as the absolute magnitude of the differences between class averages. Under the revised definitions, Class C contained in 1953 the bulk of the manual working class, Class B the families of skilled artisans and the lower middle class, and Class A the middle and upper classes. Table 21 shows the changes in the distribution of households by social class since 1950. Although the variations arose mainly from changes in the income distribution of the population, changes in sampling technique and improved response rates in the higher income groups have also had some effect.

TABLE 21
Distribution of Sample of Households by Social Class

Social Class	1950	1951	1952	1953	
				Original income grades	Revised income grades
				A	3	7	8	9	6
B	13	22	27	32	23
C	58	47	40	36	40
D	26	24	25	23	31

59. In order to provide a direct link with previous results, expenditure and consumption data were also calculated during 1953 for the income grades used during 1950-52, although, in view of the continuous inflation of wages and prices since the previous definitions were introduced, the link was perhaps more apparent than real. However, Table 22 shows that the effect of the re-classification on average household size and food expenditure was surprisingly small being, at most, 6d. per head, or 2 per cent. on the latter for Class A. It will be seen that under the old definitions, average expenditure per head was slightly higher in Class D (excluding Old Age Pensioner households) than in Class C.

TABLE 22
Food Expenditure and Social Class Distribution of Households, 1953

	Social Class						All households
	A	B	C	D			
				Excluding O.A.P.	O.A.P.		
NUMBER OF HOUSEHOLDS:							
Former income grades	1,007	3,636	4,119	1,826	807		11,395
Revised income grades	673	2,661	4,499	2,755	807		11,395
AVERAGE SIZE OF HOUSEHOLD:							
Former income grades	3·42	3·58	3·44	2·68	1·53		3·23
Revised income grades	3·43	3·56	3·55	2·82	1·53		3·23
FOOD EXPENDITURE:							
per person per week:	s. d.	s. d.	s. d.	s. d.	s. d.		s. d.
Former income grades	26 3	23 0	21 11	22 1	20 11		22 8
Revised income grades	26 9	23 4	22 3	21 11	20 11		22 8
FOOD EXPENDITURE:							
per household per week:							
Former income grades	89 10	82 4	75 4	59 3	31 11		73 2
Revised income grades	91 10	83 3	79 0	61 10	31 11		73 2

60. In the analyses which follow, the revised classification has been adopted. It is not, therefore, possible to make detailed comparisons with the survey results for 1952, but 1953 data classified on the 1950-52 basis are available for reference. For most foods class differences were somewhat smaller for the old income grades than for the new. As in previous years, comparisons between classes A, B and C were very little affected by differences in household composition; in each of these classes, over 60 per cent. of the households comprised one man and one woman with varying numbers of children or adolescents. Families in Class D were smaller than those in other social classes and contained a greater proportion of adults, especially old people. Old Age Pensioners' households formed a distinctive sub-group of this class. The remaining households in Class D have been subdivided into two groups: (1) containing one or more earners; (2) containing no earner. In the former group (Class D1) the earners may or may not have included the head of the household, but where the head was a man he would usually have been retired, ill, unemployed or working only part-time, since few adult men in normal employment were earning less than £6 per week. In some households of this group the head was retired but one or more younger members of the family were in employment. The second group (Class D2), in which the household contained no earner, included families who were living on pensions and other small unearned (and usually fixed) incomes, but were not mainly dependent on an old age pension. In family composition, and to some extent, as will be seen, in habits of diet, Class D1 tended to resemble Class C, which contained the main body of the manual working class; Class D2, on the other hand, approximated in many respects to the Old Age Pensioner group. The diet of members of households of this class was mainly determined by their age and income. These households clearly constituted a group potentially vulnerable to price increases, and as their members were hardly less numerous than the Old Age Pensioner group proper it appeared desirable to examine their position in similar detail. Table 23 illustrates the differences between the sub-groups of Class D.

TABLE 23
Food Expenditure in Social Class D, 1953

	Excluding O.A.P.		O.A.P.
	With earners	Without earners	
Number of households	2,148	607	807
Number of persons	6,679	1,106	1,232
Average household size	3·11	1·82	1·53
Average no. of children under 14 ...	0·48	0·18	0·02
Food expenditure per week:	s. d.	s. d.	s. d.
per person	21 11	22 0	20 11
per household	68 2	40 0	31 11

Expenditure and Consumption

61. The expenditure and value of food obtained for consumption by households of each social class are shown for each quarter in Table 24. All classes except D2 increased their expenditure between the first and second quarters, and class differences widened seasonally, mainly because of increased expenditure on fresh fruit and vegetables in the higher income groups. There was a further slight widening in the range of expenditure in the third quarter, attributable mainly to relative changes in expenditure on the "main dish"

animal protein foods, carcass meat, eggs and fish, which accounted for 22-26 per cent. of total household food expenditure in all classes. The value of consumption was highest in the third quarter, except in Old Age Pensioner households. Relative differences between classes in the fourth quarter were almost the same as in the third.

TABLE 24
Food Expenditure and Value of Consumption by Social Class, 1953

per head per week

	Social Class							All households
	A	B	C	D				
				Excluding O.A.P.		O.A.P.	All D	
				With earners (D 1)	Without earners (D 2)			
s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	
1ST QUARTER								
Expenditure	24 11	22 5	21 8	21 0	22 1	20 2	21 1	21 11
Value of free food	1 5	5	6	6	6	3	6	6
Value of consumption	26 4	22 10	22 2	21 6	22 7	20 5	21 7	22 5
2ND QUARTER								
Expenditure	27 7	24 3	22 10	22 6	21 7	21 9	22 3	23 4
Value of free food	1 1	11	8	1 2	1 1	10	1 2	11
Value of consumption	28 8	25 2	23 6	23 8	22 8	22 7	23 5	24 3
3RD QUARTER								
Expenditure	27 6	23 6	22 5	22 4	22 1	20 8	22 0	23 0
Value of free food	2 4	1 8	1 4	1 6	1 9	1 0	1 5	1 5
Value of consumption	29 10	25 2	23 9	23 10	23 10	21 8	23 5	24 5
4TH QUARTER								
Expenditure	27 1	23 3	22 0	21 9	22 3	20 10	21 8	22 7
Value of free food	2 6	10	10	10	1 1	5	9	11
Value of consumption	29 7	24 1	22 10	22 7	23 4	21 3	22 5	23 6
ANNUAL AVERAGE								
Expenditure	26 9	23 4	22 3	21 11	22 0	20 10	21 9	22 8
Value of free food	1 10	1 0	10	1 0	1 1	8	1 0	11
Value of consumption	28 7	24 4	23 1	22 11	23 1	21 6	22 9	23 7

62. Although Table 24 suggests that class differences widened a little during the year, a comparison with previous years in terms of the old income grades does not as yet indicate a reversal in the tendency for class differences to lessen. The narrowing effect shown in Table 25 is, of course, partly attributable to the movement of households up the income scale.

TABLE 25
Money Value of Consumption by Households of Different Social Class
compared with All Households

	Social Class					All house- holds
	A	B	C	D		
				Excluding O.A.P.	O.A.P.	
1950	129	112	98	93	91	100
1951	129	108	97	94	87	100
1952	121	102	97	96	88	100
1953 (old income grades) ...	118	101	97	97	91	100
1953 (revised income grades) ...	121	103	98	97	91	100

63. The pattern of class differences in consumption and expenditure varied widely for different foods (Tables 26 and 27). For some, notably the "non-basic" foods, consumption was highest in Class A and lowest in Old Age Pensioner households; this trend was well established for fresh and other fruit, eggs, unrationed meat and meat products, and unrationed cheese. As in 1952, the widest range occurred in fresh fruit, consumption in Class A households being 61 per cent. above and in Old Age Pensioner households 27 per cent. below the average for all households. At the other extreme were basic necessities, for which expenditure and consumption were lowest in Class A and highest in one of the Class D groups; this category of foods included bread and flour, margarine, rationed cheese and also tea, for which this reversed class gradient had emerged after derationing. Many foods, however, reached either a maximum or a minimum in Class C. Consumption was lowest in this class for liquid milk, carcass meat, fresh and processed fish, fresh green vegetables and beverages other than tea, but highest for potatoes, rationed cooking fats and unrationed fats. These departures from a regular class gradient were mainly attributable to household composition; the proportion of children was high in Class C but low in Class D.

64. For most foods there was a close similarity between the pattern of expenditure and that of consumption; in general, however, downward class gradients were steeper for value than for quantity, owing to differences in price. Such price differences were of much less importance than before the war, owing to greater standardisation of the quality of many foods, but for most commodities the average price paid still rose slowly with income. In heterogeneous food groups such as cereals and vegetables the higher income groups' preference for the more expensive kinds produced a corresponding effect. It is not, however, legitimate to divide an estimate of expenditure in Table 27 by the corresponding quantity in Table 26 to obtain a price, as this ignores the greater availability of free supplies in the higher income groups; for some foods, especially eggs, this tends to offset the class gradient in price.

65. The diet in Class D households without earners (Class D2) was broadly similar to that in Old Age Pensioner households. As mentioned above, this was to be expected since both groups consisted largely of elderly adults. Class D2, however, spent less on potatoes and bread, more on flour (presumably for home baking) and on animal protein foods, and much more on fruit and fresh green vegetables. In these respects their diet reflected habits characteristic of a higher social class, which had been retained after retirement.

TABLE 26

Domestic Food Consumption by Social Class 1953

oz. per head per week, except where otherwise stated

	Social Class							All house- holds
	A	B	C	D				
				Excluding O.A.P.		O.A.P.	All D	
				With earners	With- out earners			
MILK:—								
Liquid, retail (pt.)	5.06	3.96	3.74	4.04	5.09	4.77	4.27	3.98
Liquid, welfare and school (pt.)	0.82	0.99	0.90	0.44	0.25	0.04	0.38	0.80
Other milk and cream (pt. or eq. pt.)	0.19	0.29	0.33	0.23	0.18	0.17	0.22	0.29
TOTAL MILK AND CREAM (pt. or eq. pt.)	6.07	5.24	4.97	4.71	5.52	4.98	4.87	5.07
CHEESE:—								
Rationed	1.78	1.90	2.05	2.10	1.88	2.21	2.10	2.00
Unrationed	0.80	0.50	0.45	0.50	0.54	0.39	0.49	0.50
TOTAL CHEESE	2.58	2.40	2.50	2.60	2.42	2.60	2.59	2.50
MEAT:—								
Carcase	18.41	15.93	15.29	15.97	16.93	17.20	16.23	15.86
Bacon	5.25	5.14	5.09	5.28	5.06	5.28	5.25	5.15
Other (a)	12.65	11.10	11.41	11.59	10.35	9.06	11.09	11.33
TOTAL MEAT	36.31	32.17	31.79	32.84	32.34	31.54	32.57	32.34
FISH:—								
Fresh and processed	7.56	5.03	4.50	5.15	6.54	5.78	5.40	5.04
Prepared (b)	0.88	1.21	1.37	1.37	0.87	1.08	1.27	1.26
TOTAL FISH	8.44	6.24	5.87	6.52	7.41	6.86	6.67	6.30
EGGS, shell, hens' (No.)	4.81	4.22	3.90	3.69	3.49	3.20	3.61	3.97
FATS:—								
Butter	3.71	3.58	3.50	3.49	3.64	3.70	3.54	3.56
Margarine	3.94	4.24	4.33	4.30	4.41	4.38	4.32	4.28
Cooking fats, rationed	1.79	1.98	2.05	2.00	1.75	2.01	1.97	2.00
Other	0.49	0.64	0.69	0.60	0.57	0.54	0.58	0.64
TOTAL FATS	9.93	10.44	10.57	10.39	10.37	10.63	10.41	10.48
SUGAR AND PRESERVES:—								
Sugar	14.09	13.57	13.63	13.28	13.34	13.76	13.36	13.57
Honey, preserves, syrup and treacle	5.25	5.10	5.07	5.04	5.37	5.54	5.14	5.10
TOTAL SUGAR AND PRE- SERVES	19.34	18.67	18.70	18.32	18.71	19.30	18.50	18.67

(a) Includes cooked and canned meats and meat products.

(b) Includes cooked, canned and bottled fish and fish products.

TABLE 26—continued

oz. per head per week, except where otherwise stated

	Social Class							All households
	A	B	C	D				
				Excluding O.A.P.		O.A.P.	All D	
				With earners	Without earners			
VEGETABLES:—								
Potatoes, including chips and crisps	50·32	63·16	66·85	64·50	53·95	55·63	62·11	64·17
Fresh green	19·71	16·55	15·48	16·19	20·22	16·71	16·78	16·60
Other (c)	16·26	16·31	16·27	15·76	14·52	14·44	15·46	16·07
Total Vegetables other than Potatoes	35·97	32·86	31·75	31·95	34·74	31·15	32·24	32·67
TOTAL VEGETABLES	86·29	96·02	98·60	96·45	88·69	86·78	94·35	96·84
FRUIT:— (d)								
Fresh	35·27	24·86	19·83	19·10	22·73	15·92	18·97	21·85
Other (e)	6·33	5·26	4·68	3·82	3·82	2·64	3·64	4·68
TOTAL FRUIT (d)...	41·60	30·12	24·51	22·92	26·55	18·56	22·61	26·53
CEREALS:—								
Bread (f)	43·03	53·24	59·91	62·62	50·76	57·24	60·44	57·26
Flour	8·09	8·35	8·77	8·96	10·81	10·11	9·32	8·75
Cakes (g)	5·92	6·04	6·40	6·27	5·79	5·90	6·16	6·22
Biscuits	5·96	5·48	5·00	4·56	5·42	4·79	4·69	5·10
Other (h)	6·30	5·74	5·47	4·77	5·12	4·75	4·81	5·44
TOTAL CEREALS	69·30	78·85	85·55	87·18	77·90	82·79	85·42	82·77
BEVERAGES:—								
Tea	2·39	2·48	2·64	2·78	2·97	3·48	2·91	2·65
Other	1·18	0·75	0·69	0·71	0·81	0·97	0·77	0·76
TOTAL BEVERAGES	3·57	3·23	3·33	3·49	3·78	4·45	3·68	3·41

- (c) Includes dried and canned vegetables and vegetable products.
- (d) Includes tomatoes.
- (e) Includes dried, canned and bottled fruit.
- (f) Includes rolls and French bread.
- (g) Includes fruit bread, buns, scones, tea-cakes, muffins and crumpets.
- (h) Includes sandwiches.

TABLE 27

Domestic Food Expenditure by Social Class 1953

pence per head per week

	Social Class							All households
	A	B	C	D				
				Excluding O.A.P.		O.A.P.	All D	
				With earners	Without earners			
MILK:—								
Liquid, retail	31.96	25.70	23.87	25.98	34.02	31.84	27.73	25.77
Liquid, welfare	1.31	1.36	1.20	0.55	0.19	0.06	0.44	1.07
Other milk and cream	3.13	2.64	2.22	1.94	1.54	1.58	1.84	2.30
TOTAL MILK AND CREAM...	36.40	29.70	27.29	28.47	35.75	33.48	30.01	29.14
CHEESE:—								
Rationed	2.99	3.14	3.38	3.48	3.13	3.58	3.45	3.31
Unrationed	2.72	1.64	1.45	1.57	1.65	1.26	1.53	1.60
TOTAL CHEESE	5.71	4.78	4.83	5.05	4.78	4.84	4.98	4.91
MEAT:—								
Carcase	38.98	32.97	31.14	31.89	32.98	31.56	31.97	32.32
Bacon	16.26	15.44	14.91	15.06	14.50	14.98	14.96	15.16
Other (a)	29.20	24.94	24.53	24.52	19.41	17.01	22.81	24.50
TOTAL MEAT	84.44	73.35	70.58	71.47	66.89	63.55	69.74	71.98
FISH:—								
Fresh and processed	12.90	7.41	6.39	7.12	8.80	7.55	7.37	7.32
Prepared (b)	2.38	2.95	3.22	3.22	2.16	2.38	2.98	3.06
TOTAL FISH	15.28	10.36	9.61	10.34	10.96	9.93	10.35	10.38
EGGS, shell, hens'	20.91	19.17	17.34	15.54	15.21	14.48	15.33	17.57
FATS:—								
Butter	8.46	8.32	8.10	8.11	8.48	8.65	8.22	8.21
Margarine	4.10	4.42	4.52	4.47	4.65	4.57	4.51	4.46
Cooking fats, rationed	2.12	2.34	2.42	2.36	2.09	2.40	2.33	2.36
Other	0.96	0.95	0.99	0.84	0.70	0.71	0.81	0.95
TOTAL FATS	15.64	16.03	16.03	15.78	15.92	16.33	15.87	15.98
SUGAR AND PRESERVES:—								
Sugar	6.58	6.21	6.21	6.06	6.06	6.23	6.09	6.20
Honey, preserves, syrup and treacle	5.38	5.07	4.95	4.89	5.20	5.42	5.00	5.02
TOTAL SUGAR AND PRESERVES	11.96	11.28	11.16	10.95	11.26	11.65	11.09	11.22

(a) Includes cooked and canned meats and meat products.

(b) Includes cooked, canned and bottled fish and fish products.

TABLE 27—continued

pence per head per week

	Social Class							All households
	A	B	C	D				
				Excluding O.A.P.		O.A.P.	All D	
				With earners	Without earners			
VEGETABLES:—								
Potatoes, including chips and crisps	7·41	9·97	10·64	9·90	7·66	8·65	9·44	9·99
Fresh green	7·97	5·76	4·83	4·79	5·91	4·93	4·94	5·31
Other	9·15	9·05	8·72	8·18	6·38	6·23	7·70	8·59
Total Vegetables other than Potatoes	17·12	14·81	13·55	12·97	12·29	11·16	12·64	13·90
TOTAL VEGETABLES	24·53	24·78	24·19	22·87	19·95	19·81	22·08	23·89
FRUIT:— (d)								
Fresh	26·56	18·36	14·65	13·59	14·00	10·69	13·22	16·00
Other (e)	8·56	6·29	5·34	4·23	4·10	2·78	4·01	5·47
TOTAL FRUIT (d)	35·12	24·65	19·99	17·82	18·10	13·47	17·23	21·47
CEREALS:—								
Bread (f)	14·34	16·65	18·44	19·33	16·50	17·71	18·76	17·80
Flour	3·42	3·54	3·69	3·76	4·53	4·27	3·92	3·69
Cakes (g)	10·53	10·44	10·72	10·32	9·10	8·31	9·89	10·45
Biscuits	10·69	9·30	8·20	7·31	8·18	6·98	7·38	8·44
Other (h)	7·93	6·90	6·31	5·33	5·56	4·80	5·30	6·34
TOTAL CEREALS	46·91	46·83	47·36	46·05	43·87	42·07	45·25	46·72
BEVERAGES:—								
Tea	8·89	8·95	9·36	9·85	10·64	12·27	10·28	9·45
Other	5·46	3·05	2·66	2·71	3·48	3·46	2·91	3·01
TOTAL BEVERAGES	14·35	12·00	12·02	12·56	14·12	15·73	13·19	12·46
OTHER FOODS	10·06	7·23	6·43	5·90	7·29	5·22	6·00	6·77
TOTAL ALL FOODS	321·31	280·16	266·83	262·80	264·10	250·56	261·12	272·49
	s. d. (26 9)	s. d. (23 4)	s. d. (22 3)	s. d. (21 11)	s. d. (22 0)	s. d. (20 11)	s. d. (21 9)	s. d. (22 8)

- (c) Includes dried and canned vegetables and vegetable products.
- (d) Includes tomatoes.
- (e) Includes dried, canned and bottled fruit.
- (f) Includes rolls and French bread.
- (g) Includes fruit bread, buns, scones, tea-cakes, muffins and crumpets.
- (h) Includes sandwiches.

ENERGY VALUE AND NUTRIENT CONTENT

66. Table 28 shows the energy and nutrient values of household diets according to social class. The most noticeable feature of the table is its uniformity. For energy value, total protein, fat, calcium and vitamins B₁ and D the differences between the classes, though statistically significant and similar to those found in 1952, were not of nutritional importance. For animal protein, riboflavin and nicotinic acid, the largest differences occurred between Class A and the rest, which did not differ much from each other. Carbohydrate intake was highest in Class C and Class D households with earners and lowest in Class A. Vitamins A and C showed fairly steady downward gradients from Class A to the Old Age Pensioner households, with vitamin C exhibiting the widest class range from Class A households at 23 per cent. above the average for all households to Old Age Pensioner households at 17 per cent. below. The only other figures which call for comment are those showing the average iron content of the diets of both Old Age Pensioner households and of Class D without earners, which were 7 and 5 per cent. respectively below that of either the rest of Class D or the average for all households. This difference arose mainly from their lower consumption of eggs, canned meat, liver, sausages, potatoes and other vegetables, but, in addition, consumption of bread was relatively low in Class D without earners and that of cakes, biscuits and other cereals in Old Age Pensioner households.

TABLE 28
Energy Value and Nutrient Content of Household Diets
Households of Different Social Class, 1953

	Social Class							All households
	A	B	C	D				
				Excluding O.A.P.		O.A.P.	All D	
				With earners	Without earners			
Calories ...	2,459	2,496	2,552	2,532	2,446	2,474	2,511	2,520
Total protein ... g.	79	78	79	79	77	76	78	78
Animal protein... g.	46	41	39	39	41	39	39	40
Fat ... g.	105	102	101	99	100	99	100	101
Carbohydrate ... g.	299	318	332	330	310	319	325	325
Calcium ... mg.	1,088	1,041	1,046	1,028	1,050	1,024	1,031	1,040
Iron ... mg.	13.4	13.3	13.4	13.3	12.6	12.4	13.1	13.3
Vitamin A ... i.u.	4,392	3,904	3,801	3,692	3,675	3,462	3,682	3,836
Vitamin B ₁ ... mg.	1.30	1.30	1.32	1.32	1.26	1.26	1.30	1.31
Riboflavin ... mg.	1.84	1.68	1.66	1.62	1.68	1.61	1.63	1.66
Nicotinic acid ... mg.	14.3	13.3	13.3	13.5	13.2	12.8	13.4	13.3
Vitamin C ... mg.	65	56	52	50	52	44	49	53
Vitamin D ... i.u.	147	141	143	131	138	128	131	139

67. The adequacy of the average diets of households of different social class has been calculated by comparison with the allowances recommended by the British Medical Association. Table 29 shows that, with the exception of iron in the diet of Old Age Pensioner households, all values exceeded 95 per cent.

of the recommended allowances. The inter-class differences in all nutrients were similar to those found in 1952. The Old Age Pensioner households improved their position relatively to other classes. The allowance for protein is related to that for energy, so that the percentages for total protein were relatively high in Old Age Pensioner households and Class D households without earners, although their absolute intake was slightly lower than that of other groups. The relatively high milk consumption by households in both these groups raised the values for calcium to a level above that for Class D households with earners in spite of their lower consumption of cereals.

TABLE 29
Comparison of the Energy Value and Nutrient Content of Domestic Food Consumption with Allowances based on the British Medical Association's Recommendations
Households of Different Social Class, 1953

per cent.

	Social Class								All households
	A	B	C	D					
				Excluding O.A.P.		O.A.P.	All D		
				With earners	Without earners				
Calories	103	102	101	98	104	107	100	101	
Total protein ...	112	105	103	104	115	119	108	105	
Calcium	114	107	107	109	113	114	110	108	
Iron	111	110	109	103	96	94	102	107	
Vitamin A	185	168	161	148	139	126	144	160	
Vitamin B ₁	139	134	130	129	136	136	131	132	
Riboflavin	127	113	107	104	118	114	107	110	
Nicotinic acid ...	153	137	132	131	142	139	133	135	
Vitamin C	302	259	235	222	232	200	220	242	

68. Table 30 shows the proportion of total energy value derived from different sources. The increased fat consumption, particularly during the latter half of 1953, raised the contribution from fat in the diets of all social classes to levels above those for 1952; the proportions from carbohydrate were correspondingly lower. It will be seen that the proportions from fat and protein decreased from Class A to Class C. Within Class D, however, the proportions for households without earners (other than Old Age Pensioner households) lay between those for Class A and Class B, while for Class D households with earners the values were almost identical with those in Class C. For Old Age Pensioner households the percentage of total energy value derived from fat was nearly as high as in Class B, but the figure for protein was lower than in any other group.

TABLE 30

Percentage of Energy Value of Diets in Households of Different Social Classes derived from Protein, Fat and Carbohydrate, 1953 compared with 1952

	Social Class							All households
	A	B	C	D				
				Excluding O.A.P.		O.A.P.	All D	
				With earners	Without earners			
per cent.	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.	
Protein								
1952	12·9	12·6	12·6	12·7		12·5	12·6	12·6
1953	12·8	12·4	12·4	12·5	12·6	12·3	12·4	12·4
Fat								
1952	36·7	34·6	33·8	34·1		34·6	34·5	34·5
1953	38·4	36·2	35·2	35·3	36·8	36·0	35·8	36·0
Carbohydrate								
1952	50·4	52·8	53·6	53·2		52·9	52·9	52·9
1953	48·8	51·4	52·4	52·2	50·6	51·7	51·8	51·6

V. HOUSEHOLD DIETS AND FAMILY COMPOSITION

69. The Annual Report for 1952¹ confirmed earlier findings that the effect of family composition on domestic food expenditure and consumption was much more important than that of social class (defined in terms of the income of the head of the household). The 1953 results supported this conclusion.

70. In the present Report, comparisons have again been limited to households of one man and one woman, with or without children or adolescents. Of all households 64 per cent. were of this type; they included 62 per cent. of the persons in the sample but no less than 77 per cent. of the children. Households consisting of one man and one woman only have been further analysed to distinguish those in which neither adult was over 55. After this age, expenditure on food and average food intake tends to decline, even at a constant level of income, because of decreasing physical activity; and the decline is of course accentuated by the fall in income on retirement. In order to obtain a group of childless couples which could fairly be compared with family households, it

¹ *Domestic Food Consumption and Expenditure, 1952*: H.M.S.O. 1954, paragraph 69.

was found necessary to exclude those households in which either adult was over 55 years old. Few adults in households with children are older than this. In previous Reports the inclusion of many elderly couples with small incomes led to an understatement of the difference between childless couples and family households. Old Age Pensioner households (few of which contain any children) were excluded from the household composition tables in order to make this comparison fairer, but further analysis has shown that to secure satisfactory matching of the adult elements in respect of age and income it is necessary to segregate all older couples, and not pensioners only.

71. Table 2 of Appendix A shows the social class distribution of older and younger childless couples and of households of one man and one woman with varying numbers of children under 14. Because of the change in the income limits used to define the classes, comparisons cannot be directly made with the percentages shown in Table 24 of the Annual Report for 1952. In that and earlier Reports, Old Age Pensioner households were excluded from the household composition analysis for the reasons explained above. Childless couples have now, however, been re-classified according to age; the younger couples provide a basis for comparison with households containing varying numbers of children, and there is thus no reason why the older couples (one or both over 55) should not include Old Age Pensioner households. The averages for groups other than older childless couples were originally computed so as to exclude Old Age Pensioner households, as in previous years, and have not been recomputed, since the number of pensioners with young families is negligible; in 1953 there were six Old Age Pensioner households with one child under 14 and one with four. In future Reports all Old Age Pensioner households will be assigned to their proper household type.

72. Among households of one man and one woman with children, there was little association between income grade and family size. It is generally accepted that families are smaller in the higher income groups; on the other hand, as a family grows, the income of its head frequently increases, and this may explain a tendency (barely significant on a year's data) for heads of households with two children to have higher incomes than those with more or fewer. Table 31 also indicates that large families were commoner among manual than non-manual workers; only 22 per cent. of families with four or more children were those of sedentary workers compared with 37 per cent. of one-child families. The larger families contained a smaller proportion of children under 5, as was presumably to be expected, since many of the one and two-child families were still incomplete.

TABLE 31

**Food Expenditure and Social Class Distribution of Households
with varying Numbers of Children, 1953**

	Households with one male and one female adult and :					
	No other		Children only			
	One or both adults aged 55 or over (a)	Both adults under 55	1	2	3	4 or more
	per cent.	per cent.	per cent.	per cent.	per cent.	per cent.
Proportion of households in Classes A and B	17	36	39	45	41	41
Proportion of children aged 0-4 to total children	—	—	50	45	45	44
Proportion of men in non-sedentary occupations	28	58	63	62	73	78
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Average food expenditure per week : per person	25 10	31 0	23 11	20 1	17 4	15 6
per household	51 9	62 0	71 10	80 3	86 8	99 3

(a) Includes Old Age Pensioner households.

73. Table 32 shows the expenditure and value of consumption of households of different composition during each quarter of the year. Expenditure increased sharply between the first and second quarters in most groups, particularly younger childless couples and families with one child or with adolescents only, but lagged behind in the larger families, which, however, recovered part of the lost ground in the third quarter. Households with four or more children were the only group to maintain their expenditure in the last quarter.

74. The percentage increases at the foot of Table 32 show that households of all the classified types spent more on food in 1953 than in 1952, the average increase ranging from 11·5 per cent. for childless households to just over 5 per cent. for households with four or more children. As the latter figure slightly exceeded the average increase in food prices shown by the Survey, which was 4·6 per cent., it appears that all groups, including the larger families, either maintained or raised their levels of real consumption in 1953. As between families of different composition there were only small differences in the relative increases in expenditure *per household*, the figures being 5s. 0d. for younger childless couples and 4s. 11d. for households with four or more children. On the other hand the corresponding increase *per head*, which is largely affected by the number of dependent children, showed a progressive reduction with size of family from 2s. 6d. per week for the younger childless couples to only 9d. per head per week in households with four or more children. Although, therefore, the increase in expenditure on food per household did not vary

widely among the different groups, there was a greater *relative* improvement in the position of the small household. This is a tendency which was anticipated by the Royal Commission on Population¹ as likely to emerge with a return to more normal price relations; it has not, however, been accompanied by a deterioration in the *absolute* position of the larger families.

75. Table 33 shows the proportion of household food expenditure devoted to the subsidised and formerly subsidised foods by households of different composition during 1952 and 1953. The percentage for all households had declined from 57 per cent. in the first half of 1950 to 48 per cent. in the first half of 1951; the subsequent gradual recovery was accompanied by the progressive decontrol of these basic foods. During the period of comprehensive food control the percentage increased markedly with the number of children in the household, no doubt because the subsidised foods were then relatively cheaper, and because for most rationed foods a child's ration was equal to an adult's. The subsidies were thus of greater proportional benefit to the larger families, because of this concentration of their food expenditure on the subsidised foods. As controls were relaxed and subsidies removed, this distortion of normal buying habits tended to disappear. By the end of 1953, the percentage of expenditure spent on the subsidised and formerly subsidised foods was almost as high in childless households as in large families.

¹ Cmd. 7695, H.M.S.O. 1949, paragraph 440.

TABLE 32

**Domestic Food Expenditure and Value of Consumption
by Household Composition, 1953**

per head per week

	Households with one male and one female adult and:									
	No other			Children only				Adolescents only	Adolescents and children	
	All except O.A.P.s	One or both 55 or over (a)	Both Adults under 55	1	2	3	4 or more			
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	
1ST QUARTER										
Expenditure ...	27 11	25 7	29 4	22 5	19 6	17 3	15 2	25 2	19 2	
Value of free food...	9	9	7	4	5	4	4	9	7	
Value of consumption	28 8	26 4	29 11	22 9	19 11	17 7	15 6	25 11	19 9	
2ND QUARTER										
Expenditure ...	29 6	26 8	31 10	24 4	20 8	17 4	15 0	27 1	21 2	
Value of free food...	1 5	1 8	10	9	9	7	8	1 0	6	
Value of consumption	30 11	28 4	32 8	25 1	21 5	17 11	15 8	28 1	21 8	
3RD QUARTER										
Expenditure ...	29 6	26 0	31 6	24 7	20 3	17 10	15 6	26 6	20 2	
Value of free food...	2 0	2 1	1 9	1 4	1 2	7	11	1 9	1 3	
Value of consumption	31 6	28 1	33 3	25 11	21 5	18 5	16 5	28 3	21 5	
4TH QUARTER										
Expenditure ...	28 9	25 4	31 3	24 5	19 9	17 0	16 4	26 0	19 8	
Value of free food...	1 4	1 6	1 0	11	8	1 0	6	1 0	10	
Value of consumption	30 1	26 10	32 3	25 4	20 5	18 0	16 10	27 0	20 6	
ANNUAL AVERAGE										
Expenditure ...	28 11	25 10	31 0	23 11	20 1	17 4	15 6	26 2	20 0	
Value of free food...	1 4	1 6	1 1	10	9	8	8	1 1	9	
Value of consumption	30 3	27 4	32 1	24 9	20 10	18 0	16 2	27 3	20 9	
PERCENTAGE INCREASE IN 1953 OVER 1952										
Expenditure ...	11.5	n.a.	8.8	9.1	7.1	5.6	5.1	9.4	7.1	
Value of consumption ...	11.3	n.a.	8.5	9.2	7.8	5.9	5.4	8.6	8.3	
Average size of household										
... ..	2.0	2.0	2.0	3.0	4.0	5.0	6.41	3.27	5.14	

(a) Includes Old Age Pensioner households.

TABLE 33

Expenditure on Subsidised and Formerly Subsidised Foods(a) as Percentage of Expenditure on All Foods, 1952 and 1953

	1952				1953			
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Households with one male and one female and								
no other (both under 55)	44	46	48	50	52	53	57	57
1 child	49	50	52	51	55	55	58	58
2 children	52	53	54	54	56	56	59	60
3 children	55	56	58	55	58	58	62	60
4 or more children ...	59	58	60	62	60	61	64	58
Adolescents	48	50	50	52	53	55	58	59
Children and adolescents	54	55	58	56	58	57	61	61
All households	51	52	54	54	55	56	60	60

(a) Liquid milk, rationed cheese, rationed carcase meat and bacon, shell eggs (hens'), rationed fats, sugar, tea, bread and flour, and potatoes.

76. Tables 36 and 37 give details of consumption and expenditure per head, and Table 34 expresses consumption per head of the main foods by family households as percentages of the consumption by younger couples without children. Corresponding figures for the previous year were given in Tables 27-29 of the Annual Report for 1952. All types of household consumed more fresh meat, cheese and eggs than in 1952, but less bread, potatoes and "other" cereals; more tea, but less of other beverages; more sugar but less preserves; more butter, but (except in one group) less margarine. All groups drank slightly less liquid milk, but families with three or more children obtained more welfare and school milk. Consumption of bacon, rationed cooking fats and flour was higher in childless households but lower in those with several children. Purchases of unrationed meat and meat products declined except in the largest families, which availed themselves to a lesser extent of the greater supplies of carcase meat. The changes in consumption of fruit and vegetables were rather erratic, but all groups obtained more fruit other than fresh fruit. Changes in expenditure were broadly similar to those for consumption. All groups spent more in 1953 on meat, fats, sugar, eggs, fruit and tea, but considerably less on fish, vegetables, cakes and biscuits.

77. In the 1952 Report a table was included (Table 27) summarising the more important differences in consumption per head between households of different composition. A more detailed examination of the figures has been made for 1953 and is given in Table 34. For ease of comparison consumption per head of the households with children and/or adolescents has been expressed as a percentage of that of younger childless couples. It is naturally to be expected that the larger the family the smaller will be the consumption per head, because of the smaller needs of children. An indication of the needs of the different sized households is available in their total energy requirements, relative figures for which are given in the first line of the Table. In comparison

with these relative requirements the actual consumption figures indicate that the larger families consume relatively less than their "shares" of meat, fish, eggs, cheese, fruit and vegetables other than potatoes, roughly their shares of milk, fats, sugar and preserves, and considerably more than their shares of bread and potatoes. As in the previous year, consumption per head of bread and potatoes was lowest in households with two children and increased in larger families. It has been suggested by J. A. C. Brown¹ that as the number of children increases, the lower energy requirements of children cause the average bread consumption to fall, but that in large families, this physiological factor is outweighed by the reduction in income per head associated with the presence of children, so that the position of the turning point provides a kind of index of the relative standard of living of households with children. It may thus be significant that the turning point has shifted back since 1951 from the third to the second child. Bread and potatoes are both cheap energy foods, consumption of which tends to rise as the income per head falls. As household size increases, the diet tends therefore to contain more of the cheaper sources of energy and less of the more attractive (and expensive) animal products, fruit and vegetables. Comparisons based on energy requirements will however be misleading as indications of the desirable levels of consumption of the protein and calcium rich foods, which are of particular importance to children. The figures at the foot of Table 34 show that on this basis only the consumption of bread approaches the desirable level so far as protein is concerned, while consumption of milk is well below that indicated as desirable on the basis of calcium intake. Further reference will be made to this point later. This is a trend which has been evident since 1950, when analyses on a household-size basis were first made.

TABLE 34
Consumption per head by Households of One Man and One Woman with Children or Adolescents as Percentage of Consumption by Younger Childless Couples, 1953

	Households with one male and one female adult and:						
	No other (both under 55)	Children only				Adolescents only	Adolescents and children
		1	2	3	4 or more		
Energy requirements ...	100	88	83	80	79	109	96
Fresh green vegetables ...	100	74	62	43	39	85	56
Fresh fruit ...	100	78	63	49	40	87	59
Other fruit ...	100	74	61	49	44	77	49
Beverages ...	100	69	60	48	43	80	61
Fish ...	100	70	56	46	42	89	60
Meat (including bacon)	100	76	62	54	50	87	63
Eggs, shell ...	100	77	68	59	49	83	63
Cheese ...	100	79	67	58	55	91	68
Flour ...	100	80	67	54	54	99	72
"Other" cereals ...	100	84	75	68	59	92	71
"Other" vegetables ...	100	87	74	68	64	87	71
Milk, liquid ...	100	96	93	86	77	85	79
Sugar and preserves ...	100	92	87	83	82	97	92
Fats ...	100	92	88	83	83	99	91
Bread ...	100	85	75	77	86	103	101
Potatoes (including chips and crisps) ...	100	92	83	86	90	97	99
Protein requirements ...	100	94	91	90	90	116	110
Calcium requirements ...	100	109	114	116	119	118	124

¹ *Economic Journal* (1954), pages 408-410.

78. The relatively small differences shown in Table 34 for fats and for sugar and preserves may be explained by the tendency under rationing for housewives to take up their families' full entitlement. Table 35 shows that when the sugar ration was only 10 oz. per head per week it was taken up almost in full in all groups. As supplies improved, differences appeared, and after sugar rationing ended on 26th September consumption exhibited a regular downward trend with number of children. Comparing the fourth quarter with the third, consumption increased in all groups consisting of adults only or of adults and adolescents, but decreased in all groups containing children. This is an example of the reassertion of a more normal pattern of demand when the constraint of rationing was removed. Social class differences in sugar consumption were quite small both before and after decontrol; the changes in the last quarter were associated solely with family composition.

TABLE 35
Consumption of Sugar by Household Composition, 1953

	oz. per head per week								
	Households with one male and one female adult and:								All households
	No other		Children only				Adolescents	Adolescents and children	
	One or both adults aged 55 or over (a)	Both adults under 55	1	2	3	4 or more			
1st Quarter ...	10·9	10·6	10·1	10·1	9·8	10·4	10·4	10·3	10·2
2nd Quarter ...	13·5	14·8	13·1	13·1	12·0	13·4	14·1	12·3	13·2
3rd Quarter ...	16·2	16·6	17·4	14·9	16·3	14·7	15·7	16·6	15·7
4th Quarter ...	17·2	17·2	15·5	14·3	13·6	11·5	16·2	15·0	15·2

(a) Includes Old Age Pensioner households.

TABLE 36
Domestic Food Consumption by Household Composition, 1953

oz. per head per week except where otherwise stated

	Households with one male and one female adult and:									
	No other			Children only				Adolescents only	Adolescents and children	
	All except O.A.P.	Both adults under 55	One or both adults aged 55 or over (inc. O.A.P.)	1	2	3	4 or more			
MILK:										
Liquid, retail (pt.)	5.33	5.18	5.25	3.90	3.30	2.50	1.86	4.46	3.44	
Liquid, welfare scheme and school (pt.)	0.09	0.18	0.01	1.23	1.70	2.10	2.28	0.09	0.79	
Other milk and cream (pt. or equivalent pt.)	0.23	0.30	0.20	0.44	0.36	0.29	0.46	0.22	0.23	
TOTAL MILK	5.65	5.66	5.46	5.57	5.36	4.89	4.60	4.77	4.46	
CHEESE	3.20	3.17	3.11	2.51	2.14	1.84	1.75	2.87	2.17	
MEAT:										
Rationed, carcass	21.04	21.48	20.25	16.31	13.27	11.30	10.00	18.33	12.90	
Bacon	6.56	6.85	6.11	5.28	4.44	3.97	3.39	6.25	4.50	
Other(a)	14.22	15.23	12.38	11.33	9.32	8.37	8.23	13.44	10.23	
TOTAL MEAT	41.82	43.56	38.74	32.92	27.03	23.64	21.62	38.02	27.63	
FISH:										
Fresh and processed	7.55	6.60	7.80	4.38	3.69	2.91	2.79	5.97	3.75	
Prepared(b)	1.51	1.82	1.21	1.48	1.05	0.93	0.74	1.56	1.32	
TOTAL FISH	9.06	8.42	9.01	5.86	4.74	3.84	3.53	7.53	5.07	

	5·00	5·53	4·34	4·28	3·78	3·27	2·74	4·59	3·48
Eggs, shell, hens' (No.)									
FATS:									
Butter	3·80	3·86	3·73	3·57	3·55	3·33	3·20	3·65	3·42
Margarine	4·45	4·49	4·35	4·28	4·04	4·01	4·16	4·61	4·40
Cooking fat, rationed	2·12	2·29	1·99	2·10	1·97	1·82	1·86	2·09	2·01
Other fats	0·82	0·89	0·69	0·67	0·56	0·45	0·37	1·03	0·66
TOTAL FATS	11·19	11·53	10·76	10·62	10·12	9·61	9·59	11·38	10·49
SUGAR AND PRESERVES:									
Sugar	14·79	14·81	14·45	14·00	13·14	12·94	12·48	14·10	13·56
Honey, preserves, syrup and treacle	5·97	5·86	5·96	5·07	4·80	4·28	4·45	5·99	5·44
TOTAL SUGAR AND PRESERVES	20·76	20·67	20·41	19·07	17·94	17·22	16·93	20·09	19·00
VEGETABLES:									
Potatoes, including chips and crisps	66·29	70·74	61·71	64·81	58·60	61·11	63·59	68·76	70·32
Fresh green	23·81	23·05	23·95	17·07	14·18	10·02	9·02	19·53	12·93
Other(c)	19·54	20·29	17·80	17·65	14·95	13·74	13·00	17·58	14·39
Total vegetables other than potatoes	43·35	43·34	41·75	34·72	29·13	23·76	22·02	37·11	27·32
TOTAL VEGETABLES	109·64	114·08	103·46	99·53	87·73	84·87	85·61	105·87	97·64
FRUIT(d):									
Fresh	29·32	30·72	26·17	23·99	19·42	14·94	12·33	26·85	18·24
Other(e)	6·41	7·51	4·99	5·55	4·60	3·65	3·30	5·80	3·67
TOTAL FRUIT(d)	35·73	38·23	31·16	29·54	24·02	18·59	15·63	32·65	21·91

- (a) Includes cooked and canned meats and meat products.
- (b) Includes cooked, canned and bottled fish and fish products.
- (c) Includes dried and canned vegetables and vegetable products.
- (d) Includes tomatoes.
- (e) Includes dried, canned and bottled fruit.

TABLE 36—continued oz. per head per week except where otherwise stated

	Households of one male and one female adult and:									
	No other			Children only				Adolescents only	Adolescents and children	
	All except O.A.P.	Both Adults under 55	One or both adults aged 55 or over (inc. O.A.P.)	1	2	3	4 or more			
CEREALS:										
Bread(f)	61.55	63.46	59.97	53.97	47.70	48.56	54.69	65.63	64.28	
Flour	12.28	10.91	12.98	8.68	7.35	5.88	5.85	10.77	7.91	
Cakes(g)	8.12	8.52	7.40	6.39	4.98	4.39	3.76	8.00	5.40	
Biscuits	6.31	6.99	5.47	5.86	4.99	4.44	3.44	6.01	4.29	
Other(h)	5.96	5.75	5.85	5.68	6.04	5.55	5.31	5.50	5.47	
TOTAL CEREALS	94.22	95.63	91.67	80.58	71.06	68.82	73.05	95.91	87.35	
BEVERAGES:										
Tea	3.63	3.70	3.52	2.59	2.18	1.87	1.68	2.99	2.26	
Other	1.06	1.10	1.02	0.73	0.70	0.44	0.40	0.85	0.68	
TOTAL BEVERAGES	4.69	4.80	4.54	3.32	2.88	2.31	2.08	3.84	2.94	

(f) Includes rolls and French bread.

(g) Includes fruit bread, buns, scones, tea-cakes, muffins and crumpets.

(h) Includes sandwiches.

TABLE 37
Domestic Food Expenditure by Household Composition, 1953

pence per head per week

	Households of one male and one female adult and:										
	No other			Children only				Adolescents only		Adolescents and children	
	All except O.A.P.	Both Adults under 55	One or both adults aged 55 or over (inc. O.A.P.)	1	2	3	4 or more				
MILK:											
Liquid, retail ...	35.08	34.41	34.27	25.74	21.41	15.82	11.55	29.37	21.65		
Liquid, welfare scheme and school ...	0.14	0.30	—	1.93	2.44	2.94	3.00	0.02	0.67		
Other milk and cream ...	2.96	3.68	2.32	3.11	2.44	1.60	2.09	2.46	1.71		
TOTAL MILK	38.18	38.39	36.59	30.78	26.29	20.36	16.64	31.85	24.03		
CHEESE ...	6.46	6.43	6.13	4.94	4.20	3.40	3.26	5.77	4.17		
MEAT:											
Rationed, carcass ...	43.22	45.04	40.02	33.67	27.15	23.24	19.90	37.66	26.06		
Bacon ...	19.43	20.60	17.78	15.83	13.00	11.50	9.79	17.92	13.02		
Other(a) ...	32.50	36.66	26.23	25.07	19.05	17.21	15.79	30.20	21.09		
TOTAL MEAT	95.15	102.30	84.03	74.57	59.20	51.95	45.48	85.78	60.17		
FISH:											
Fresh and processed ...	11.40	10.36	11.26	6.53	5.25	4.00	3.71	8.79	5.09		
Prepared(b) ...	3.65	4.41	2.93	3.58	2.57	2.11	1.69	3.80	3.16		
TOTAL FISH	15.05	14.77	14.19	10.11	7.82	6.11	5.40	12.59	8.25		
Eggs, shell, hens' ...	22.14	26.10	18.00	19.72	16.92	14.60	12.12	19.65	15.02		

TABLE 37—continued

pence per head per week

	Households of one male and one female adult and:									
	No other			Children only				Adolescents only	Adolescents and children	
	All except O.A.P.	Both Adults under 55	One or both adults aged 55 or over (inc. O.A.P.)	1	2	3	4 or more			
FATS:										
Butter ...	8.77	9.01	8.54	8.34	8.22	7.72	7.37	8.52	7.97	
Margarine ...	4.64	4.66	4.52	4.46	4.21	4.19	4.34	4.81	4.59	
Cooking fat, rationed ...	2.50	2.71	2.34	2.51	2.30	2.16	2.17	2.47	2.37	
Other fats ...	1.23	1.39	1.02	0.99	0.80	0.63	0.50	1.50	0.94	
TOTAL FATS ...	17.14	17.77	16.42	16.30	15.53	14.70	14.38	17.30	15.87	
SUGAR AND PRESERVES:										
Sugar ...	6.78	6.79	6.59	6.42	6.04	5.87	5.68	6.48	6.18	
Honey, preserves, syrup and treacle ...	5.98	5.88	5.90	5.00	4.62	4.14	4.23	5.93	5.37	
TOTAL SUGAR AND PRESERVES ...	12.76	12.67	12.49	11.42	10.66	10.01	9.91	12.41	11.55	
VEGETABLES:										
Potatoes, including chips and crisps ...	10.47	11.91	9.22	10.35	9.22	9.39	9.34	11.04	10.93	
Fresh green ...	7.82	8.62	6.78	5.62	4.41	3.31	2.23	6.24	4.09	
Other(c) ...	10.03	11.63	8.14	9.56	8.29	7.53	6.94	9.65	7.62	
Total Vegetables other than Potatoes ...	17.85	20.25	14.92	15.18	12.70	10.84	9.17	15.89	11.71	
TOTAL VEGETABLES ...	28.32	32.16	24.14	25.53	21.92	20.23	18.51	26.93	22.64	

FRUIT(d):																								
Fresh	21.74	24.67	17.87	17.99	14.21	10.83	8.64	19.42	13.56															
Other(e)	7.64	9.43	5.46	7.06	5.24	4.04	3.68	6.78	3.98															
TOTAL FRUIT(d)	29.38	34.10	23.33	25.05	19.45	14.87	12.32	26.20	17.54															
CEREALS:																								
Bread(f)	19.58	20.16	18.89	16.72	14.71	14.80	16.73	20.25	19.59															
Flour	5.14	4.60	5.42	3.67	3.12	2.49	2.48	4.54	3.31															
Cakes(g)	13.73	14.97	11.70	10.98	8.39	7.11	6.10	13.34	9.26															
Biscuits	10.43	12.07	8.53	10.08	8.37	7.32	5.48	10.03	7.10															
Other(h)	6.77	7.05	6.24	6.99	7.19	6.41	5.95	6.49	6.19															
TOTAL CEREALS	55.65	58.85	50.78	48.44	41.78	38.13	36.74	54.65	45.45															
BEVERAGES:																								
Tea	13.08	13.18	12.66	9.25	7.71	6.58	5.77	10.57	8.03															
Other	4.43	4.66	4.06	2.87	2.58	1.69	1.41	3.45	2.34															
TOTAL BEVERAGES	17.51	17.84	16.72	12.12	10.29	8.27	7.18	14.02	10.37															
MISCELLANEOUS	9.32	10.54	7.62	8.21	6.57	5.44	3.92	7.17	5.40															
TOTAL ALL FOODS	347.06	371.92	310.44	287.19	240.63	208.07	185.86	314.32	240.46															
	(28s. 11d.)	(31s. 0d.)	(25s. 10d.)	(23s. 11d.)	(20s. 1d.)	(17s. 4d.)	(15s. 6d.)	(26s. 2d.)	(20s. 0d.)															

- (a) Includes cooked and canned meats and meat products.
- (b) Includes cooked, canned and bottled fish and fish products.
- (c) Includes dried and canned vegetables and vegetable products.
- (d) Includes tomatoes.
- (e) Includes dried, canned and bottled fruit.
- (f) Includes rolls and French bread.
- (g) Includes fruit bread, buns, scones, tea-cakes, muffins and crumpets.
- (h) Includes sandwiches.

79. A new feature of interest in Tables 36 and 37 is the separate analysis of younger and older childless couples. The younger couples consumed more bread and potatoes, no doubt to satisfy their greater energy requirements, and also more meat of all kinds (especially unrationed meat and meat products), eggs and fresh and other fruit. The older couples consumed more fresh and processed fish, but less cooked and canned fish; more flour, but less cakes and biscuits. This is in line with the impression that home-baking is more general among the older generation. Older people bought more oatmeal than younger couples, but less of other breakfast cereals. The effect of advancing age on the diet is perhaps best examined in households of elderly persons living alone; a preliminary study has appeared elsewhere.¹

EFFECT OF CHILDREN ON EXPENDITURE

80. The special analysis given in Table 31 of the Annual Report for 1952 in order to indicate the effect of an additional child on the food expenditure of the household has been repeated on the 1953 data. The results obtained from this form of analysis have been discussed elsewhere by E. H. Gibson, W. L. Readman and G. M. Warnock.² The grouping of foods in Table 38 follows that previously used as closely as possible, except that cocoa (including drinking chocolate) has been shown separately; the group previously called "cocoa drinks" included branded food drinks which have been added to the miscellaneous group. Since the adult element in households of one man and one woman with children was similar to the childless couples under 55, differences between the selected groups could be attributed primarily to the presence of children. The expenditure on each food group, and on all foods, was therefore analysed into a part corresponding to the adult members and a part proportional to the number of children. Table 38 shows for each of the main foods the expenditure attributable to the adult couple and the average increment for a child. There was some departure from the strictly linear form; the actual increment in total food expenditure was greater for the first child than for additional children. Nevertheless the regression method provides a convenient general indication of the effect of children.

81. In 1953 the average expenditure attributable to the adult element was 62s. 9d. per week compared with 57s. 3d. in 1952; the addition for each child averaged 8s. 5d. compared with 8s. 6d. This average increment does not of course represent the cost of feeding a child; as the size of the family increases, the standard of the diet of the whole family falls and part of the amount attributed in this form of analysis to the adults is doubtless devoted to the children.

82. The last column of Table 38 shows the child increment as a percentage of the expenditure attributable to the adult couple. For all foods this was 13 per cent. compared with 15 per cent. in 1952. The principal decreases were for rationed meat (reduced from 17 per cent. to 9 per cent.), bacon (down from 30 to 12 per cent., though there was a slight difference in definition)³ and eggs, decontrolled on 26th March (down from 27 to 12 per cent.). On the other hand, the figure for sausages rose from 12 to 22 per cent. The average increment in expenditure on fresh meat associated with the presence of a child was thus less than one-fifth of the expenditure attributable to an adult, and on bacon less than a quarter; rationing was being gradually relaxed. For fats, however, it remained fully effective, and sugar was also effectively rationed for most of the year; these commodities accordingly had higher

¹ *Proceedings of the Nutrition Society* (1955), Vol. 14, p. 77.

² *Proceedings of the Nutrition Society* (1955), Vol. 14, p. 80.

³ Bacon ribs, ham bones and bacon knuckles were included in bacon in 1952 but in 1953 were treated as "bones" and transferred to "other meat".

average percentage increments than any other main foods except National bread, old potatoes, oatmeal and other breakfast cereals and cocoa. Fresh fruit and fresh green vegetables both displayed the phenomenon of "arrested expenditure". As the number of children in the family increased, total expenditure on these foods did not rise; both exhibited a maximum at the second child followed by a slight fall.

TABLE 38
Domestic Food Expenditure per Household in 1953

pence per household per week

	Observed average expenditure per household per week					Regression estimates		
	Households with one male and one female adult and:					Expenditure attributable to:		Child as percentage of couple
	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.		Per cent.
Milk and cream	76.8	92.3	105.2	101.8	106.7	81.9	8.5	10
Cheese	12.9	14.8	16.8	17.0	20.9	13.0	1.7	13
Eggs, all	52.5	59.3	67.9	73.3	77.7	53.1	6.6	12
Meat:								
Rationed	91.3	103.1	110.4	118.0	130.5	92.8	8.8	9
Bacon	41.2	47.5	52.0	57.5	62.8	41.8	5.1	12
Sausages	15.9	19.9	23.1	26.4	31.9	16.1	3.5	22
Other meat	56.2	53.2	51.2	57.8	66.5	53.3	0.9	2
Total meat	204.6	223.7	236.7	259.7	291.7	204.0	18.3	9
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	
	(17 1)	(18 8)	(19 9)	(21 8)	(24 4)	(17 0)	(1 6)	
Fish	d.	d.	d.	d.	d.	d.	d.	3
	29.5	30.3	31.3	30.6	34.6	29.5	0.8	
Total for milk, cheese, eggs, meat and fish.	376.3	420.4	457.9	482.4	531.6	381.5	35.9	9
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	
	(31 4)	(35 0)	(38 2)	(40 2)	(44 4)	(31 9)	(3 0)	
New potatoes, chips and crisps	d.	d.	d.	d.	d.	d.	d.	20
	11.0	12.6	14.0	17.6	21.0	10.6	2.1	
Old potatoes	12.8	18.4	22.9	29.4	38.9	12.6	5.6	44
Fresh green vegetables	17.2	16.9	17.6	16.6	14.3	17.4	-0.3	-2
Other vegetables	23.3	28.7	33.2	37.6	44.5	23.6	4.8	20
Total vegetables	64.3	76.6	87.7	101.2	118.7	64.2	12.2	19
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	
	(5 4)	(6 5)	(7 4)	(8 5)	(9 11)	(5 4)	(1 0)	
Fresh fruit	d.	d.	d.	d.	d.	d.	d.	3
	49.3	54.0	56.8	54.2	55.4	51.2	1.8	
Other fruit and nuts	18.9	21.2	21.0	20.2	23.6	19.6	0.7	4
Total for vegetables and fruit	132.5	151.8	165.5	175.6	197.7	135.0	14.6	11
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	
	(11 1)	(12 8)	(13 10)	(14 8)	(16 6)	(11 3)	(1 3)	

TABLE 38—continued

pence per household per week

	Observed average expenditure per household per week					Regression estimates		
	Households with one male and one female adult and:					Expenditure attributable to:		Child as percentage of couple
	No other (both adults under 55)	Children only						
		1	2	3	4 or more	Adult couple	Each child	
	d.	d.	d.	d.	d.	d.	Per cent.	
National bread	31.1	41.0	48.7	64.6	91.5	29.0	11.8	41
Other bread(a)	14.1	14.9	16.0	16.0	23.7	13.6	1.4	10
Flour	9.2	11.0	12.5	12.4	15.9	9.4	1.4	14
Total bread and flour	54.4 s. d. (4 6)	66.9 s. d. (5 7)	77.2 s. d. (6 5)	93.0 s. d. (7 9)	131.1 s. d. (10 11)	52.0 s. d. (4 4)	14.6 s. d. (1 3)	28
Biscuits	d. 24.1	d. 30.2	d. 33.5	d. 36.6	d. 35.1	d. 25.8	d. 3.3	13
Cakes and pastries	25.4	27.3	27.7	29.2	31.3	25.7	1.2	5
Oatmeal and other break- fast cereals	5.9	9.2	14.0	16.6	20.5	6.0	3.6	60
Other cereals	7.8	11.6	14.8	15.2	17.6	8.7	2.5	29
Total for cereal foods	117.6 s. d. (9 10)	145.2 s. d. (12 1)	167.2 s. d. (13 11)	190.6 s. d. (15 11)	235.6 s. d. (19 8)	118.2 s. d. (9 10)	25.2 s. d. (2 1)	21
Fats	d. 35.5	d. 48.9	d. 62.1	d. 73.5	d. 92.1	d. 35.9	d. 12.8	36
Sugar and preserves	25.3	34.3	42.6	50.0	63.5	25.5	8.5	33
Coffee	5.5	5.0	5.2	4.0	4.2	5.5	-0.3	-6
Tea	26.4	27.8	30.8	32.9	37.0	25.9	2.4	9
Cocoa drinks	1.1	1.4	2.2	2.2	3.1	1.1	0.5	43
Miscellaneous	23.5	26.7	29.0	29.2	26.9	24.8	1.5	6
Total food expenditure	743.7 s. d. (62 0)	861.5 s. d. (71 10)	962.5 s. d. (80 3)	1,040.4 s. d. (95 0)	1,191.7 s. d. (99 4)	753.4 s. d. (62 9)	101.2 s. d. (8 5)	13

(a) Includes items listed in footnotes (g) and (h) to Table 37.

ENERGY VALUE AND NUTRIENT CONTENT

83. The energy value and nutrient content of the average food consumption of households of different composition are shown in Table 39. The diet of younger childless couples exceeded that of older couples in energy value and intake of all nutrients; the differences reflect the smaller requirements and lower incomes of elderly adults. As explained above, the adults in households with children form a group broadly comparable in age and income with the younger childless couples, who may therefore be taken as a standard of comparison when considering the effect of children on the household diet. For the reasons stated in paragraph 77 the intake per head per day of all nutrients, with two exceptions, decreased as family size increased. In households with four or

more children intakes of carbohydrate and vitamin D were greater than in households with three children, mainly because of their greater consumption of bread and National Dried Milk (to which vitamin D is added). Similar results were found in 1952. In 1950 there was a corresponding upward turn in energy value and the closely related vitamin B₁; this has since flattened out, but is still perceptible in Table 40, in which account is taken of the varying nutritional requirements of the different household types.

TABLE 39

Energy Value and Nutrient Content of Domestic Food Consumption, 1953, by Households with one Male and one Female Adult and varying Numbers of Children

per head per day

	Households with one male and one female adult and:							
	No other		Children only				Adolescents only	Adolescents and children
	One or both adults aged 55 or over (a)	Both adults under 55	1	2	3	4 or more		
Energy value ... Cal.	2,772	2,982	2,569	2,305	2,162	2,145	2,814	2,479
Protein ... g.	89	96	80	70	65	63	88	75
Animal protein... g.	47	51	42	37	33	30	44	35
Fat ... g.	111	123	105	94	85	81	112	94
Carbohydrate ... g.	354	373	327	295	284	290	360	335
Calcium ... mg.	1,149	1,206	1,092	1,001	920	904	1,100	988
Iron ... mg.	14.9	16.5	13.6	11.9	11.0	10.6	15.3	12.8
Vitamin A(b) ... i.u.	4,196	4,822	4,134	3,667	3,314	2,844	4,148	3,442
Vitamin B ₁ (c) ... mg.	1.48	1.60	1.32	1.17	1.09	1.08	1.47	1.27
Riboflavin ... mg.	1.88	2.05	1.75	1.57	1.43	1.32	1.78	1.51
Nicotinic acid ... mg.	15.5	16.9	13.5	11.5	10.6	10.3	15.2	12.5
Vitamin C(c)(d) mg.	60	68	58	50	44	41	59	49
Vitamin D(b) ... i.u.	144	152	154	139	123	136	144	129

(a) Includes Old Age Pensioner households.

(b) Excludes Welfare fish liver oil and vitamin A and D tablets.

(c) Allowances have been made for cooking losses according to Medical Research Council War Memorandum No. 14.

(d) Includes Welfare orange juice.

84. Table 40 illustrates the reduction in the percentage of requirements met as family size increased. The customary 10 per cent. deduction for wastage has been made. The increase in the figures for energy value compared with 1952 is probably understated, as the Survey did not include sweets,¹ purchases of which rose sharply after decontrol in February, 1953. An anomalous result found in previous years, the maximum for vitamin A in households with one child, is now explained; the true maximum occurred in the group of younger childless couples, but was not apparent until these households were separated from older couples, whose vitamin A intake was much lower.

¹ See paragraph 44.

TABLE 40

Comparison of Energy Value and Nutrient Content of Domestic Food Consumption, 1953, with Allowances based on the British Medical Association's Recommendations

per cent.

	Households with one male and one female adult and:							
	No other		Children only				Adolescents only	Adolescents and children
	One or both adults aged 55 or over (a)	Both adults under 55	1	2	3	4 or more		
Energy value...	108	110	107	102	99	100	99	95
Total protein...	125	126	112	102	95	93	101	89
Calcium ...	129	140	115	102	92	87	107	92
Iron ...	112	130	116	106	103	100	110	100
Vitamin A ...	151	182	178	171	163	146	165	160
Vitamin B ₁ ...	145	149	139	131	127	128	130	121
Riboflavin ...	121	124	120	113	107	101	104	95
Nicotinic acid	152	157	142	130	124	122	134	121
Vitamin C ...	270	313	279	246	222	208	237	202

(a) Includes Old Age Pensioner households.

85. Table 40 shows that the diets of all household types, with the exception of households with three or more children or with children and adolescents, appears to be satisfactory in all respects. The least satisfactory features are the percentages for protein and calcium in these larger families, and possibly also the figure for riboflavin in households with both adolescents and children. Since 1950 there has been a general decrease in the percentages for protein and calcium in all types of households containing children or adolescents (Table 41). Since 1951 the larger families have, to a greater extent than others, reduced their consumption of milk, which is the main source of calcium in the diet and an important source of animal protein.

TABLE 41

Changes in the Comparison of Protein and Calcium Content of Domestic Food Consumption with Allowances based on the British Medical Association's Recommendations, 1950, 1952, 1953

per cent.

	Households with one male and one female adult and:							
	No other		Children only				Adolescents only	Adolescents and children
	One or both adults aged 55 or over (a)	Both adults under 55	1	2	3	4 or more		
Total protein								
1950 ...	n.a.	n.a.	117	105	102	94	103	91
1952 ...	n.a.	n.a.	112	102	96	95	100	90
1953 ...	125	126	112	102	95	93	101	89
Calcium								
1950 ...	n.a.	n.a.	120	106	102	92	114	94
1952 ...	n.a.	n.a.	116	102	95	90	110	94
1953 ...	129	140	115	102	92	87	107	92

(a) Includes Old Age Pensioner households.

86. The main sources of calcium in the diets of all classified types of household are shown in Table 42. In 1953 there were reductions in calcium from milk and from bread and flour, and increases in the amounts from cheese.

TABLE 42
Calcium Content of Domestic Food Consumption, 1952 and 1953, by Household Composition

		Households with one male and one female adult and:												per head per day			
		No other				Children only				Adolescents only				Adolescents and children			
		One or both adults aged 55 or over (a)		Both adults under 55		1		2		3		4 or more		Adolescents only		Adolescents and children	
		mg.	Per cent.	mg.	Per cent.	mg.	Per cent.	mg.	Per cent.	mg.	Per cent.	mg.	Per cent.	mg.	Per cent.	mg.	Per cent.
MILK	1952	n.a.	n.a.	n.a.	n.a.	561	50.7	522	52.4	499	52.2	465	49.9	482	43.3	444	44.1
	1953	530	46.1	544	45.2	542	49.6	523	52.3	475	51.6	450	49.8	463	42.1	435	44.0
BREAD AND FLOUR	1952	n.a.	n.a.	n.a.	n.a.	276	25.0	244	24.5	249	26.1	275	29.5	335	30.0	323	32.2
	1953	302	26.3	310	25.7	266	24.4	235	23.5	235	25.5	259	28.7	324	29.5	310	31.4
CHEESE	1952	n.a.	n.a.	n.a.	n.a.	69	6.2	61	6.1	54	5.6	50	5.4	81	7.2	64	6.4
	1953	101	8.8	106	8.8	83	7.6	71	7.1	61	6.6	57	6.3	94	8.6	71	7.2
OTHER FOODS	1952	n.a.	n.a.	n.a.	n.a.	200	18.1	170	17.0	154	16.1	142	15.2	219	19.5	173	17.3
	1953	216	18.8	246	20.3	201	18.4	172	17.1	149	16.3	138	15.2	219	19.8	172	17.4
TOTAL	1952	n.a.	n.a.	n.a.	n.a.	1,106	100.0	997	100.0	956	100.0	932	100.0	1,117	100.0	1,004	100.0
	1953	1,149	100.0	1,206	100.0	1,092	100.0	1,001	100.0	920	100.0	904	100.0	1,100	100.0	988	100.0

(a) Includes Old Age Pensioner households.

87. There appears to be little doubt that any substantial improvement in the calcium, and to a lesser extent the protein intake of large families could be brought about only by an increase in their consumption of milk. A high consumption of bread, the other important source of calcium, is still associated in this country with a low income per head, so that an improvement in the general standard of living of these families would actually tend to decrease their purchases of bread and hence their calcium intake—unless, meanwhile, their milk consumption had increased sufficiently to offset the reduction. From 1951 onwards households with three or more children have become increasingly dependent on welfare and school milk, as the following figures indicate:

Welfare and School Milk as percentage of total Milk Consumption

Households with one male and one female adult and	1 child	2 children	3 children	4 or more children
1951—July—December	24	35	39	50
1952	26	37	42	52
1953	24	34	46	55

The Chief Medical Officer of the Ministry of Education has pointed out¹ that children from small families tend to be of better physique than those from large ones, especially in the lower social groups, and has emphasized the importance of school milk.

88. Table 43 compares the sources of the energy value of the diet in 1950, 1952 and 1953. In 1953 the proportion derived from fat increased in all groups, the increase being smallest in families with several children. The general decrease in the percentage of energy obtained from protein in family households may also be of some importance. The diet of younger childless couples contained relatively less carbohydrate and more fat than that of older couples.

TABLE 43
Percentage of Energy Value derived from Protein, Fat and Carbohydrate, 1950, 1952 and 1953

per cent.

	Households with one male and one female adult and:							
	No other		Children only				Adolescents only	Adolescents and children
	One or both adults aged 55 or over (a)	Both adults under 55	1	2	3	4 or more		
PROTEIN								
1950 ...	n.a.	n.a.	12·6	12·4	12·3	12·0	12·8	12·3
1952 ...	n.a.	n.a.	12·6	12·4	12·1	12·0	12·8	12·4
1953 ...	12·8	12·9	12·4	12·1	12·0	11·8	12·6	12·1
FAT								
1950 ...	n.a.	n.a.	37·7	37·6	36·5	35·7	35·9	34·9
1952 ...	n.a.	n.a.	35·0	35·2	34·8	33·6	33·8	32·6
1953 ...	36·1	37·1	36·7	36·7	35·4	34·0	36·0	34·0
CARBOHYDRATE								
1950 ...	n.a.	n.a.	49·7	50·0	51·2	52·3	51·3	52·8
1952 ...	n.a.	n.a.	52·4	52·4	53·1	54·4	53·4	55·0
1953 ...	51·1	50·0	50·9	51·2	52·6	54·2	51·4	53·9

(a) Includes Old Age Pensioner households.

¹ *The Health of the School Child, 1952 and 1953*, page 11. H.M.S.O. 1954.

89. The energy value and nutrient content of food obtained for household consumption has been further analysed in Table 44 by the same method as that applied in Table 38 to individual foods. The meaning of these regression estimates has been discussed by Gibson *et al.* in the paper cited above.¹ The departure from linearity was greatest in households with four or more children, which were relatively few in number, and for vitamins A and D, which came from a limited number of foods and were therefore subject to greater sampling variations than other nutrients. For total protein, fat, iron, vitamins of the B complex and vitamins A and C, the average increment for a child was 20–25 per cent. of the amount attributable to the adult couple. The average increase in energy value was rather greater, at 28 per cent., because of the higher figure of 32 per cent. for carbohydrate. The lowest value, 19 per cent., was found for animal protein, the highest, 36 per cent., for vitamin D, which is of special importance to children. The estimates refer only to quantities of this vitamin obtained from the normal household diet, and do not include any supplementary contributions made by fish liver oil or vitamin tablets. For calcium, of which children require more than adults, the average increase per child was 30 per cent. of that attributable to the two adults.

90. Table 44 also gives regression estimates relating to the recommended allowances, calculated in the same way as those for actual consumption. The amounts attributable to the adult couple were in all cases much in excess of the corresponding allowances. The child increments in energy value, the B vitamins and vitamins A and C were approximately equal to or greater than the corresponding average increments in the recommended allowances, but for calcium, protein, and to a lesser extent iron, the average additional intake associated with the presence of a child was less than the corresponding average increase in the allowance recommended for the household. This does not of course imply that the average child's actual intake was undesirably low, since the household remains the unit of investigation, and even where the child increment is less than the corresponding allowance, the total allowance for the household may still be met. Since average family income does not appear to vary greatly with family size, it must be presumed that some fall in the standard of living occurs with the addition of each child, and that the parents do not, in consequence, maintain the pattern of diet found in childless households. The present analysis further suggests that the nutrients in which the larger families with several children are likely to be most vulnerable (during a period of rising prices) are calcium, protein, iron and riboflavin, in roughly that order.

¹ Some of the estimates given in Table 2 of this paper have been slightly revised.

Energy Value and Nutrient Content of Domestic Food Consumption per Household in 1953
 per household per day

	Observed average energy value or nutrient content per household per day					Regression estimates				
	Households with one male and one female adult and:					Intake (a)			Allowance	
	No other adults under 55)	Children only				Adult couple	Each child	Child as percentage of couple	Adult couple	Each child
	1	2	3	4 or more	Adult couple	Each child	Child as percentage of couple	Adult couple	Each child	
Energy value Cal.	5,964	7,707	10,810	13,752	5,959 (5,363)	1,676 (1,508)	28	4,860	1,656	
Total protein g.	191	240	325	407	191 (172)	46 (41)	24	135	58	
Animal protein g.	102	126	163	191	105 (94)	20 (18)	19	—	—	
Fat g.	246	314	426	521	250 (225)	61 (55)	25	—	—	
Carbohydrate g.	745	980	1,419	1,860	736 (662)	235 (212)	32	—	—	
Calcium mg.	2,412	3,276	4,600	5,796	2,469 (2,222)	752 (677)	30	1,559	993	
Iron mg.	33.0	40.8	55.2	67.9	32.9 (29.6)	7.5 (6.8)	23	23.0	8.5	
Vitamin A i.u.	9,644	12,402	16,570	18,233	10,045 (9,040)	2,153 (1,938)	21	4,785	1,464	
Vitamin B ₁ mg.	3.20	3.98	5.44	6.90	3.17 (2.85)	0.78 (0.70)	25	1.92	0.65	
Riboflavin mg.	4.10	5.24	7.14	8.49	4.18 (3.76)	1.01 (0.91)	24	2.94	1.02	
Nicotinic acid mg.	33.8	40.5	53.2	66.0	33.4 (30.1)	6.7 (6.0)	20	19.2	6.5	
Vitamin C mg.	136	173	219	266	140 (126)	29 (26)	20	39	17	
Vitamin D i.u.	305	463	617	869	323 (291)	116 (104)	36	—	—	

(a) The figures in brackets are the estimates of intake after the customary 10 per cent. allowance for wastage has been deducted.

VI. THE SCOTTISH SAMPLE IN 1953

COMPOSITION OF THE SAMPLE

91. At the request of the Department of Health for Scotland a special analysis of the National Food Survey sample for Scotland by household composition was made, and the results appear of sufficient general interest to warrant publication. The sampling errors inherent in the Scottish data are naturally larger—about three times as great as those in the sample for Great Britain as a whole—and there is a further major limitation as regards the representativeness of the sub-sample. Only six Parliamentary constituencies were surveyed in Scotland during 1953, namely:

Glasgow, (Hillhead)	Motherwell (Lanark)
Central Ayrshire (Ayrshire)	W. Fife (Fife)
Coatbridge and Airdrie	Aberdeen N.

While these areas are satisfactory for merging into the general sample, which is representative of Great Britain as a whole, it is not claimed that they are fully representative of Scotland; the results may, however, give an indication of the true position. The restriction of the sample to limited areas does not, of course, invalidate the comparison between the large family groups and others in those areas; and it was the position of these large families which led to the original enquiry. Families of one man and one woman with four or more children have not been analysed separately, as only 32 Scottish households of this type occurred in the sample.

TABLE 45

Composition of the Scottish Sample, 1953

	Households other than Old Age Pensioner households							O.A.P. households	All households
	Households with one male and one female adult and:						Other households		
	No other	1 child	2 children	3 or more children	Adolescents only	Adolescents and children			
Number of households	189	149	127	89	53	91	408	66	1,172
Number of persons	378	447	508	493	182	504	1,575	99	4,186
Persons per household	2.00	3.00	4.00	5.54	3.43	5.54	3.86	1.50	3.57

EXPENDITURE AND CONSUMPTION

92. Total household expenditure on food in the Scottish sample was from 1 to 3 per cent. below the average for Great Britain, in each of the four quarters of the year, as the following table indicates:

TABLE 46
Domestic Food Expenditure, 1953

per head per week					
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Yearly average
Scotland	s. d. 21 4	s. d. 23 0	s. d. 22 4	s. d. 22 6	s. d. 22 3
Great Britain ...	21 11	23 4	23 0	22 7	22 8

93. Taking the year as a whole, the average expenditures of the different household groups were also within 3 per cent. of the corresponding averages for Great Britain, with two exceptions: households comprising one man and one woman only (7 per cent. higher) and households also containing adolescents (4 per cent. higher). The sub-sample of the latter group was, however, the smallest one separately analysed and the difference is not statistically significant. These comparisons of total expenditure are shown at the foot of Table 47.

94. The main purpose of Table 47 is to bring out the more important differences in consumption between Scotland and Great Britain as a whole. The foods have therefore been grouped, in descending order, according to the ratio of the average consumption of all Scottish households to the average for Great Britain. Expenditure per head per week has also been included in the table, but has not been expressed as a percentage of the expenditure for Great Britain since for most foods the ratio was not very different from those for consumption. Where there was an appreciable difference for a particular food or food group, this will be referred to below; such a difference might arise from variations in price or in the contribution of free supplies. A price index of the Fisher Ideal type, calculated for all foods, indicated that the general level of food prices paid by housewives in Scotland was approximately 3 per cent. higher than in Great Britain as a whole.

TABLE 47
Consumption and Expenditure in Households of Different Composition, and Consumption expressed as a percentage of that for Great Britain, 1953

Commodities and Percentage Groups (for "All households")	Households other than Old Age Pensioner households										O.A.P. households	All households
	Households with one male and one female adult and:											
	No other	Children only			Adolescents only	Adolescents and children	Other households					
		1	2	3 or more								
130 PER CENT. AND OVER Cakes and pastries	Consumption oz. as percentage of Gt. Britain... ..	13.42	11.20	8.22	5.76	12.02	7.95	9.37	9.50	9.10		
	Expenditure d.	165	175	165	139	150	147	144	161	146		
	Consumption oz. as percentage of Gt. Britain... ..	21.27	18.27	13.15	8.93	18.63	11.67	14.53	11.56	14.46		
	Expenditure d.	9.52	8.08	6.22	4.99	9.61	4.74	6.40	7.84	6.61		
Biscuits	Consumption oz. as percentage of Gt. Britain... ..	151	138	125	124	160	110	131	164	130		
	Expenditure d.	16.74	14.96	11.02	8.56	16.79	8.62	11.08	10.92	11.61		
	Consumption oz. as percentage of Gt. Britain... ..	7.88	5.73	5.57	5.33	8.06	7.58	6.18	5.68	6.30		
	Expenditure d.	132	113	116	122	135	139	128	103	123		
120-129 PER CENT. Preserves	Consumption oz. as percentage of Gt. Britain... ..	7.74	5.88	5.34	5.15	7.94	7.45	6.00	5.54	6.19		
	Expenditure d.	25.77	21.56	18.74	16.03	23.32	16.48	18.71	19.75	19.28		
	Consumption oz. as percentage of Gt. Britain... ..	132	122	125	119	132	114	117	137	120		
	Expenditure d.	12.11	10.17	10.16	8.10	10.10	8.15	9.18	7.39	9.40		
Vegetables, other than fresh green and potatoes.	Consumption oz. as percentage of Gt. Britain... ..	132	122	125	119	132	114	117	137	120		
	Expenditure d.	12.11	10.17	10.16	8.10	10.10	8.15	9.18	7.39	9.40		

110-119 PER CENT. Cereals, other than bread, flour, cakes and biscuits.	Consumption do.	...	...	...	oz.	6-71	4-71	7-31	6-08	6-09	8-15	6-46
	Expenditure ...	...	...	...	d.	111	87	133	111	122	172	119
Potatoes ...	Consumption do.	...	...	...	oz.	66-41	69-63	76-20	87-33	69-85	59-07	72-12
	Expenditure ...	...	...	...	d.	113	113	111	116	109	106	112
Meat, other than carcase meat and bacon.	Consumption do.	...	...	...	oz.	11-60	10-41	14-08	12-26	12-52	12-07	12-53
	Expenditure ...	...	...	...	d.	124	125	105	120	105	133	111
		...	...	...	d.	21-73	19-64	31-13	24-73	24-79	18-53	24-84
91-109 PER CENT. Bread ...	Consumption do.	...	...	...	oz.	52-74	57-62	71-93	74-90	63-29	57-01	62-29
	Expenditure ...	...	...	...	d.	110	113	110	117	109	100	109
Eggs, shell, hens' ...	Consumption do.	...	...	...	No.	4-20	3-36	4-85	3-82	4-36	3-57	4-35
	Expenditure ...	...	...	...	d.	111	109	105	109	110	111	109
		...	...	...	d.	21-16	17-12	23-76	19-04	20-60	18-16	21-26
Fish, fresh and processed ...	Consumption do.	...	...	...	oz.	3-96	3-14	6-04	4-55	6-18	7-79	5-39
	Expenditure ...	...	...	...	d.	107	108	101	121	112	135	107
		...	...	...	d.	6-59	5-14	9-86	6-84	9-85	10-59	8-71
Cheese, rationed ...	Consumption do.	...	...	...	oz.	1-60	1-63	2-30	1-90	1-94	2-30	1-98
	Expenditure ...	...	...	...	d.	91	103	104	107	96	104	99
		...	...	...	d.	2-67	2-64	3-95	3-19	3-23	3-65	3-29
Cooking fat, rationed ...	Consumption do.	...	...	...	oz.	1-71	1-82	2-27	2-09	1-74	1-41	1-96
	Expenditure ...	...	...	...	d.	87	99	109	104	89	70	98
		...	...	...	d.	2-03	2-14	2-60	2-45	2-03	1-74	2-29

TABLE 47—continued

Commodities and Percentage Groups (for "All households")	Households other than Old Age Pensioner households										O.A.P. households	All households
	Households with one male and one female adult and:											
	Children only			Adolescents only	Adolescents and children	Other households						
	No other	1	2				3 or more					
91-109 PER CENT.—(continued)	Sugar	14.90	13.93	12.50	13.05	13.72	13.33	12.86	16.23	13.32		
	do. Consumption oz. as percentage of Gt. Britain...											
	do. Expenditure d.	101	99	95	103	97	98	97	118	98	98	
	Butter	6.91	6.44	5.80	5.88	6.19	6.07	5.87	7.31	6.09	6.09	
	do. Consumption oz.	3.99	3.51	3.35	3.08	4.01	3.17	3.44	3.69	3.44	3.44	
	do. Expenditure d.	105	98	94	93	110	93	98	100	97	97	
	Margarine	9.25	8.14	7.91	7.19	9.54	7.34	7.77	8.61	7.94	7.94	
	do. Consumption oz.	4.67	4.09	3.87	4.02	4.94	4.24	3.99	4.23	4.14	4.14	
Milk, liquid	do. Consumption pt. as percentage of Gt. Britain...	105	96	96	100	107	96	93	97	97		
	do. Expenditure d.	4.85	4.24	4.05	4.18	5.08	4.41	4.14	4.36	4.30		
	do. Consumption pt.	5.41	5.03	4.89	4.36	4.42	4.17	4.41	4.85	4.59		
	do. Expenditure d.	100	98	98	98	97	99	95	101	96		
81-90 PER CENT.	Tea	34.78	26.22	21.85	15.79	28.64	20.63	24.51	31.73	24.06		
	do. Consumption oz.	3.57	2.16	2.02	1.60	2.58	2.06	2.51	3.56	2.36		
	do. Expenditure d.	98	83	93	89	86	91	94	102	89		
	Carcass meat	12.86	7.50	6.6	5.49	9.30	7.06	8.65	12.22	8.17		
Carcass meat	do. Consumption oz.	21.31	14.27	12.16	9.25	17.66	10.97	14.24	12.49	13.64		
	do. Expenditure d.	101	87	92	86	96	85	86	73	86		
	do. Consumption oz.	46.99	31.99	27.27	19.78	39.49	24.08	31.61	25.74	30.18		
	do. Expenditure d.											

71-90 PER CENT. Cheese, unrationed	Consumption oz. as percentage of Gt. Britain...	0.60	0.41	0.34	0.15	0.60	0.37	0.39	0.54	0.39
	do.	81	87	89	68	92	95	72	138	78
	Expenditure d.	2.00	1.36	1.22	0.55	2.20	1.36	1.34	1.51	1.33
	Consumption pt. or eq. pt. as percentage of Gt. Britain...	0.10	0.30	0.45	0.22	0.09	0.14	0.16	0.05	0.22
Milk, other than liquid and cream.	do.	44	68	125	63	41	61	67	29	76
	Expenditure d.	1.26	1.37	1.32	0.75	1.20	0.81	0.88	0.40	1.02
	Consumption oz. as percentage of Gt. Britain...	24.57	17.88	14.63	10.64	23.70	15.14	16.47	9.71	16.66
	do.	84	74	75	76	88	83	74	61	76
Fruit, fresh	Expenditure d.	21.06	15.91	11.58	8.53	18.69	13.11	14.22	8.36	13.94
	Consumption oz. as percentage of Gt. Britain...	0.52	0.50	0.49	0.31	1.06	0.25	0.50	0.25	0.45
	do.	63	75	83	76	103	38	82	46	70
	Expenditure d.	0.70	0.68	0.60	0.35	1.42	0.35	0.68	0.33	0.61
70 PER CENT. AND UNDER Fats, other than butter, mar- garine, and rationed cooking fats.	Consumption oz. as percentage of Gt. Britain...	10.46	6.17	3.45	3.35	7.48	4.26	4.90	5.43	5.23
	do.	85	71	47	56	69	54	58	54	60
	Expenditure d.	4.32	2.57	1.47	1.39	3.12	1.77	2.08	2.39	2.19
	Consumption oz. as percentage of Gt. Britain...	4.47	3.46	2.55	2.46	3.93	2.20	3.29	2.89	3.11
Bacon	do.	68	66	57	66	63	49	63	55	60
	Expenditure d.	15.43	11.75	8.64	8.10	13.63	7.76	11.36	9.50	10.65
	Consumption oz. as percentage of Gt. Britain...	3.57	3.22	1.94	1.99	2.63	1.77	2.63	0.96	2.46
	do.	56	58	42	57	45	48	59	36	53
Fruit, other than fresh	Expenditure d.	5.18	4.35	2.63	2.49	3.35	2.21	3.26	1.55	3.18

TABLE 47—continued

Commodities and Percentage Groups (for "All households")	Households other than Old Age Pensioner households										O.A.P. households	All households
	Households with one male and one female adult and:											
	No other	Children only			Adolescents only	Adolescents and children	Other households					
		1	2	3 or more								
70 PER CENT. AND UNDER— (continued) Fish, cooked, canned and fish products.	0.69	0.92	0.55	0.50	0.55	0.61	0.58	0.35	0.61	0.61	0.35	0.61
	46 1.15	62 1.85	52 1.32	57 1.31	35 1.47	46 1.57	47 1.34	32 0.71	48 1.36	48 1.36	32 0.71	48 1.36
Beverages, other than tea ...	0.53	0.26	0.45	0.20	0.39	0.32	0.33	0.22	0.34	0.34	0.22	0.34
	50 2.49	36 1.38	64 1.55	45 0.58	46 1.59	47 1.18	44 1.42	23 0.72	45 1.38	45 1.38	23 0.72	45 1.38
Vegetables, fresh green ...	11.25	5.07	4.17	3.17	6.48	3.80	6.35	5.12	5.65	5.65	5.12	5.65
	47 4.46	30 1.87	29 1.59	33 0.65	33 1.90	29 1.48	37 2.16	31 2.22	34 2.00	34 2.00	31 2.22	34 2.00
Total Food Expenditure ...	31s. 0d. 107	24s. 2d. 101	20s. 3d. 101	16s. 8d. 100	27s. 2d. 104	20s. 5d. 102	22s. 4d. 97	20s. 8d. 99	22s. 3d. 98	22s. 3d. 98	20s. 8d. 99	22s. 3d. 98
do ...	as percentage of Gt. Britain											
do ...	as percentage of Gt. Britain											

95. The differences between the Scottish diet and that in England and Wales were remarkably consistent throughout the year, except for a few foods for which the season was later in the north. The comments which follow therefore apply to all four quarters of the year, except where otherwise stated. The differences were also broadly similar to those found in an earlier regional analysis of urban working-class households surveyed in 1949,¹ with which they may be compared.

96. Of the 28 main foods or food groups analysed in Table 47, nine showed differences in consumption of 30 per cent. or more between the averages for Scotland and for Great Britain, nine differed by 10 per cent. or less and ten fell into intermediate positions. At the head of the list, with an average consumption nearly 50 per cent. higher than that for Great Britain, appeared cakes (including fruit bread) and pastries. Buns, scones and tea-cakes together made by far the greatest contribution to this difference. Biscuits followed next with a difference of 30 per cent. Flour appears in the lowest section of the table with purchases at 60 per cent. of the average for Great Britain, suggesting that home-baking was not much practised in the Scottish areas surveyed. There were four foods with still lower percentages which, together with their associated food groups, merit special comment.

97. The consumption of fresh green vegetables, at only 34 per cent. (5·6 oz. per head per week compared with 16·6 oz.) constituted the greatest difference between the Scottish diet and that of Great Britain as a whole. Within this group, the disparity was greatest for fresh legumes (0·4 oz. compared with 4·0 oz.). This low consumption may not, however, have been entirely due to a smaller effective demand but in some degree also to smaller supplies, especially of the less hardy vegetables. There was a compensating higher consumption in Scotland of potatoes (112 per cent.) and other vegetables (120 per cent.). It should be noted, however, that expenditure on the last-named group was only 107 per cent. of the average for Great Britain, largely because of the greater concentration on root vegetables and onions. There was a greater seasonal variation in the consumption of potatoes and carrots in Scotland, the demand for the former being more responsive to seasonal low prices than in England and Wales. Consumption of cabbages, cauliflower and leafy salads was highest in the third quarter north of the border, but highest in the second quarter in the south.

98. Three other food groups whose consumption amounted to only about a half of the average for Great Britain were fruit (other than fresh), beverages (other than tea) and cooked and canned fish (including fish products). Consumption of fresh fruit was also appreciably lower at 76 per cent., but expenditure was 87 per cent., partly because of the smaller self-supplies in Scotland and partly because of higher prices which are usual in Scotland for such items as tomatoes and stone and soft fruit. The lowest percentages in this group were for stone fruit; purchases of oranges and bananas, on the other hand, were well up to the average for Great Britain. The Scottish consumption of tea was rather lower, at 89 per cent., than the average for Great Britain; for other beverages, especially branded food drinks, the difference was greater. Consumption of fresh and processed fish, in contrast to other fish, was actually 7 per cent. higher than the general average. Though the difference does not appear great for this fish group as a whole, there was much disparity in detail. Scottish households bought less of the expensive types of fresh white fish but more of the cheaper fresh and processed white

¹ Second Report of the National Food Survey Committee. (In preparation).

fish. They ate practically no shellfish. Scottish consumption of fat fish (mainly herrings) was highest in the summer months, when the average for Great Britain was lowest; this arises from the different seasonality of landings. The consumption of bacon was only 60 per cent. of the average for Great Britain, although expenditure was significantly higher at 70 per cent., probably because of a preference for particular cuts. This result suggested that the average price paid for bacon in Scotland was about 16 per cent. higher than for Great Britain as a whole, the largest price difference found.

99. There remain six food groups, hitherto not mentioned, whose consumption in Scotland was between 10 and 29 per cent. above or below the average for Great Britain. Those above were preserves (123 per cent.), cereals other than bread, flour, cakes and biscuits (119 per cent.) and meat, other than carcase meat and bacon (111 per cent.). The expenditure ratios for the two last-named groups were significantly lower at 107 and 101 per cent. respectively, because of the relatively higher purchases of cheaper varieties in Scotland, particularly of oatmeal rather than other breakfast cereals, and of sausages and meat products rather than canned meats. The actual expenditure on other breakfast cereals, though less than elsewhere, was, however, nearly as high as that on the traditional and cheaper breakfast dish. The groups below the general average included unrationed cheeses and processed milk and cream whose consumption was just over 75 per cent. of the average for Great Britain. Expenditure on processed milk and cream was strikingly lower, at only 44 per cent., because of a higher consumption of the cheaper National Dried Milk and a lower consumption of condensed milk. Carcase meat appears higher in the scale with consumption in Scotland equivalent at 86 per cent. of that in Great Britain, and expenditure at 93 per cent. This disparity was because Scotland had more beef but much less mutton and pork than in the rest of the country. The difference for carcase meat widened as supplies improved.

100. The consumption of liquid milk and each of five rationed foods (cheese, sugar, butter, margarine and cooking fat) was within 5 per cent. of the average for Great Britain. The expenditure ratios were almost identical with those for consumption, except that for milk, which, at 90 per cent., was 6 per cent. lower. The Scottish households contained a somewhat higher proportion of children, and therefore took more welfare milk, but the average price paid for full price milk in Scotland was also slightly lower because consumption of T.T. and special grades was less.

101. Two more foods in the middle section of Table 47 call for comment, namely, bread and shell eggs. Although the average consumption of both was only 9 per cent. above that of Great Britain, the average expenditures were respectively 32 and 20 per cent. higher. For bread, this wide gap is explained by the remarkably high Scottish demand for the more expensive rolls, baps and French bread (9.0 oz. per head per week compared with a general average of 1.7 oz.). The consumption of National bread and white bread was slightly lower than elsewhere, and that of proprietary and other bread nearly one-third lower. For eggs, average prices were slightly higher in Scotland and self-supplies contributed a smaller proportion of total consumption.

102. With minor exceptions, and allowing for the fluctuations inherent in relatively small sub-samples, it may be said that the major differences described above obtained in all types of family. It is of interest, however, to note that the consumption ratio of Scottish old age pensioner households, compared with all old age pensioner households in the general sample, was significantly higher for a number of foods than the corresponding ratio for all households, e.g. cakes, biscuits, "other" vegetables, "other" cereals, and "other"

meats, fresh and processed fish, sugar, tea, unrationed cheeses. On the other hand, their relative consumption was especially low for a few foods, notably cooking fats, condensed milk, fruit, and beverages other than tea.

ENERGY VALUE AND NUTRIENT CONTENT

103. The nutritional characteristics of the diet of the Scottish sample are compared in the right hand column of Table 48 with those of the diet of the general sample. For animal protein, fat and vitamin C the average Scottish diet contained 90 to 94 per cent. of the average for Great Britain, and for energy, total protein, calcium, iron, vitamins of the B complex, and vitamins A and D between 95 and 100 per cent.: it contained 105 per cent. as much carbohydrate. In 1949 the differences for urban working-class samples were similar, though the Scottish diet then contained relatively more animal protein, fat and vitamins A and B₁ and relatively less vitamins C and D.

104. The comparisons shown in Table 48 are less favourable to Scotland for all households than for any one of the household types containing children or adolescents. This holds good for energy and all nutrients, except vitamins C and D (and fat and carbohydrate each for one group only): the Scottish sample contained a somewhat higher proportion of the larger families which have a relatively low nutrient intake. If the nutritional value of the diet of each kind of Scottish family containing children or adolescents is compared with that for all Scottish households, the relationships found correspond closely to the figures for households from the whole of Great Britain. Thus the effects of differences in family composition seem to be much the same in Scotland as in Great Britain as a whole, except that the Scottish households containing two adults only (other than the old age pensioner households) obtained relatively more of all nutrients, except vitamins C and D, than two-adult households in the general sample, a difference which is only partly explained by the more active nature of their occupations. The Scottish old age pensioner households followed the pattern of all households fairly closely except for some of the vitamins: they obtained relatively more vitamin A and less vitamin D than the general sample of old age pensioner households.

105. The comparisons, in Table 49, of intake with allowances based on the British Medical Association's recommendations again show a strong similarity for all household types in Scotland and Great Britain for energy and all nutrients. This is the more noteworthy in view of the number of striking differences that have been found in consumption patterns. In Scotland and the whole country the diets of households with three or more children and with both children and adolescents were relatively low in protein and calcium; those of all households with children and adolescents were also slightly low in energy and riboflavin, and the old age pensioner households in iron.

106. The contributions of protein, fat and carbohydrate to the energy value of the diets of the various household types are shown in Table 50 for Scotland and Great Britain. For all groups the Scottish sample obtained relatively more energy from carbohydrate and less from fat than the general sample; there was little difference for the proportions from protein. Similar differences were shown in 1949. Scotland and the whole country exhibited the same changing pattern with increasing size of family: decreases in the proportions of fat and, to a lesser extent from protein, and corresponding increases in the proportions from carbohydrate.

TABLE 48
Energy Value and Nutrient Content of Domestic Food Consumption in Scottish Households 1953

	Excluding Old Age Pensioner households										All house- holds as percentage of Great Britain
	Households with one male and one female adult and:										
	No other	Children only			Adoles- cents only	Adoles- cents and children	Other house- holds	O.A.P. house- holds	All house- holds	per head per day	
		1	2	3 or more							
Energy value ...	3,130	2,626	2,330	2,206	2,961	2,535	2,504	2,461	2,531	100	
Protein ...	99	81	72	65	90	77	78	76	78	100	
Animal protein ...	50	40	36	30	42	33	37	37	37	93	
Fat ...	123	103	90	81	114	87	94	90	95	94	
Carbohydrate ...	406	345	308	304	393	361	336	337	341	105	
Calcium ...	1,221	1,096	1,004	918	1,106	1,006	1,002	1,038	1,024	98	
Iron ...	17.4	13.7	12.2	10.9	16.0	13.2	13.3	12.5	13.3	100	
Vitamin A(a) ...	4,877	3,969	3,562	3,086	4,096	3,279	3,464	3,749	3,635	95	
Vitamin B ₁ (b) ...	1.59	1.28	1.14	1.07	1.44	1.26	1.25	1.16	1.26	96	
Riboflavin ...	2.07	1.70	1.58	1.36	1.75	1.51	1.59	1.62	1.61	97	
Nicotinic acid ...	17.0	13.2	11.6	10.4	15.6	12.8	13.0	12.1	12.9	97	
Vitamin C(b)(c) ...	60	47	43	41	54	46	46	38	47	90	
Vitamin D(a) ...	141	157	150	126	148	121	138	108	139	100	

(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 47
Energy Value and Nutrient Content of the Diet Expressed as a Percentage of Requirements
Scottish Households of Different Composition, 1953

	Excluding Old Age Pensioner households										O.A.P. households	All households
	Households with one male and one female adult and:											
	No other	Children only			Adolescents only	Adolescents and children	Other households					
		1	2	3 or more								
CALORIES:												
Scotland ...	115	103	103	102	102	95	96	105	96	101	105	101
Gt. Britain ...	109	102	99	102	99	95	97	107	97	101	107	101
TOTAL PROTEIN:												
Scotland ...	131	103	96	103	100	89	101	118	101	103	118	103
Gt. Britain ...	126	102	94	102	101	89	104	119	104	105	119	105
CALCIUM:												
Scotland ...	135	101	90	101	103	91	103	117	103	103	117	103
Gt. Britain ...	135	102	90	102	107	92	108	114	108	108	114	108
IRON:												
Scotland ...	130	109	104	109	112	101	103	95	103	107	95	107
Gt. Britain ...	122	106	102	106	110	100	104	94	104	107	94	107
VITAMIN A:												
Scotland ...	176	165	154	165	159	151	154	135	140	153	135	153
Gt. Britain ...	168	171	157	171	165	160	157	126	150	160	126	160
VITAMIN B₁:												
Scotland ...	148	128	128	128	123	119	128	125	121	126	125	126
Gt. Britain ...	148	131	127	131	130	121	127	136	130	132	136	132
RIBOFLAVIN:												
Scotland ...	125	114	103	114	99	94	103	114	101	105	114	105
Gt. Britain ...	124	113	105	113	104	95	105	114	105	110	114	110
NICOTINIC ACID:												
Scotland ...	158	131	123	131	133	121	123	130	126	130	130	130
Gt. Britain ...	156	130	123	130	134	121	123	139	133	135	139	135
VITAMIN C:												
Scotland ...	267	212	207	212	205	185	207	170	202	211	170	211
Gt. Britain ...	294	246	217	246	237	202	217	200	237	242	200	242

TABLE 50
Percentage of Energy Value of the Diet derived from Protein,
Fat and Carbohydrate
Scottish Households of Different Composition, 1953

	Excluding Old Age Pensioner households						Old Age Pensioner households	All households
	Households with one male and one female adult and							
	No other	Children only			Adolescents only	Adolescents and children		
		1	2	3 or more				
PROTEIN								
Scotland ...	12·7	12·3	12·4	11·8	12·2	12·0	12·3	12·4
Great Britain	12·9	12·4	12·1	11·9	12·6	12·1	12·3	12·4
FAT								
Scotland ...	35·4	35·2	34·7	33·1	34·7	31·0	32·9	33·8
Great Britain	36·8	36·7	36·7	34·9	36·0	34·0	36·0	36·0
CARBOHYDRATE								
Scotland ...	51·9	52·5	52·9	55·1	53·1	57·0	54·8	53·8
Great Britain	50·3	50·9	51·2	53·3	51·4	53·9	51·7	51·6

APPENDIX A

COMPOSITION OF THE SAMPLE

1. Until 9th February 1953 the National Food Survey was conducted in the same parliamentary constituencies and by the same methods as in 1952. The Social Survey Division of the Central Office of Information then became responsible for the fieldwork of the Survey. In order to ensure a smooth transition, alterations in technique on the transfer of the fieldwork were kept to a minimum. As before, the sample design was a stratified random one in three stages, but the method of stratification was modified. The first-stage units were 60 parliamentary constituencies selected with probability proportional to the electorate, one from each of 60 groups having approximately equal populations. In constructing these groups, the 613 constituencies in Great Britain were classified by regions, and within each region purely urban constituencies (i.e. those containing no part of a rural district or (in Scotland) no part of the landward area of a county) were separated from others. Purely urban constituencies in England and Wales were further classified within each region by Corlett's "juror index",¹ i.e. the proportion of the electorate qualified for jury-service. This helped to secure correct representation of areas of different residential character. In Scotland, where the juror index was not available, purely urban constituencies were classified by rateable value (other than industrial or freight transport) per head of population. Constituencies containing part of a rural administrative area were stratified within each region by the proportion of the population living in rural districts (in England and Wales) or landward areas of counties (in Scotland). The 60 first-stage units were randomly selected from 60 separate groups thus defined, subject to the restriction that constituencies visited during the past two years were not to be selected. The constituencies surveyed in 1953 were as follows:

¹ *Applied Statistics* (1952), vol. I, p. 34.

Region	Constituency (a)	Region	Constituency (a)
Northern and East and West Ridings	*Dewsbury *Doncaster *Gateshead, W. †Hemsworth (Yorkshire, W.R.) †Hexham (Northumberland) †Houghton-le-Spring (Durham) *Huddersfield, E. Sheffield, Brightside Sunderland, S.	London ...	*Bexley *Brentford and Chiswick *Hammersmith, N. *Hendon, S. *Kingston-upon-Thames *Lewisham, N. *Leyton *Paddington, N. *Southwark *Uxbridge (Middlesex)
North Western	Accrington *Cheadle (Cheshire) †City of Chester (Cheshire) Leigh *Liverpool, Walton *Manchester, Blackley *Salford, W. †South Fylde (Lancashire)	South Eastern and Southern	†Abingdon (Berkshire) †Basingstoke (Hampshire) †Canterbury (Kent) †Eastbourne (Sussex, E.) Poole Portsmouth, Langstone †Reigate (Surrey)
North Midland and Eastern	Grimsby †Harborough (Leicestershire) †Hertford (Hertfordshire) Hornchurch Nottingham, Central †Maldon (Essex) †Peterborough (Northants) †S.W. Norfolk (Norfolk)	South Western	Bristol, W. †Totnes (Devon) †W. Gloucestershire (Gloucestershire) †Weston-super-mare (Somerset)
Midland ...	*Birmingham, Northfield †Hereford (Herefordshire) †Newcastle-under-Lyme *Oldbury and Halesowen *Rowley Regis and Tipton	Wales ...	†Barry (Glamorganshire) †Caernarvon (Caernarvonshire) Pontypool (Monmouthshire)
		Scotland ...	Aberdeen, N. †Central Ayrshire (Ayrshire) *Coatbridge and Airdrie *Glasgow, Hillhead *Motherwell (Lanark) †W. Fife (Fife)

(a) County constituencies are followed by the name of the county in brackets; the rest are borough constituencies. Constituencies marked * are within the conurbations (i.e., the largest areas of continuous urban development as defined by the Registrars-General). Those marked † contain rural areas.

2. The second-stage sampling units were polling districts within the selected constituencies, four being selected in each constituency for each quarter. As the main analyses of the data were quarterly, the problem was regarded as that of designing the best possible sample for three months, spreading the work as continuously as possible. In purely urban areas all the polling districts in the constituency were stratified by the juror index and four were selected with probability proportional to size. In other constituencies, polling districts were first classified as urban or rural according to their administrative status; the "percentage rural" figure for the constituency, already used as a basis of classification at the first stage, then determined how many of the four polling districts should be rural, as follows:

Percentage rural	Less than 12.5	12.5-37.5	37.5-62.5	62.5-87.5	Over 87.5
Number of rural polling districts	0	1	2	3	4

3. The urban and rural polling districts in the constituency were then stratified separately by the juror index. Where only one polling district of a given type, say urban, was required, this additional stratification was confined to the three of the other type. In urban areas in Scotland, polling districts were selected at random, since the juror index was not applicable and the alternative criterion, rateable value per head, was not readily available except for entire administrative areas.

4. In previous years the correct urban/rural ratio had been achieved at the expense of excluding from the sampling the rural parts of predominantly urban constituencies and the urban parts of predominantly rural constituencies. The design introduced in 1953 did not exclude any area from a chance of selection, except in the rare case of a mixed constituency in which either the percentage rural or the percentage urban was less than $12\frac{1}{2}$. The proportion of the population thus excluded was less than $\frac{1}{2}$ per cent.

5. The third stage of sampling consisted of the selection of addresses from the electoral register for each selected polling district at constant intervals from a randomly chosen starting-point. The method of selecting addresses at this final stage and the instructions given to interviewers followed the Social Survey's standard practice described elsewhere.¹

6. Interviews were made in half the constituencies alternately for periods of three weeks, during which two polling districts within each of these constituencies were sampled for ten days each. A polling district was worked for only one ten-day period. The selected polling districts in a constituency were operated systematically, so that the sample covered, even in a shorter period than a quarter, should approximate as closely as possible to a representative sample of the whole.

7. The number of addresses allocated to each interviewer during the first three days of each ten-day period was reduced from 36 to 20, in order to enable further recalls to be made on the less accessible housewives. The Social Survey's normal practice of requiring interviewers to work in the evening when necessary was introduced in order to increase the representation of working housewives. As a result of these changes the effective response rate was raised. Thus, during the second half of 1953, completed log-books were received from 56 per cent. of the addresses visited, compared with 43 per cent. in January–September 1952. In 1952, however, not all the chosen addresses were visited; in relation to addresses selected, the percentage was 37. Further, at about a quarter of the addresses visited in 1952 the housewife was not at home. With the introduction of evening interviewing and the concentration of a given number of calls on fewer housewives, the contact rate has risen to about 95 per cent. The improvement has therefore been in the proportion of housewives with whom contact was made, rather than in the readiness of those interviewed to co-operate: in both years about 60 per cent. of the housewives actually interviewed finished complete log-books for the following week.

8. A tendency of the survey sample to include too high a proportion of young children has been progressively reduced. In 1950, when the sample was first extended to cover all classes in both urban and rural areas, children aged 0–9 constituted 22.5 per cent. of the sample. In the 18 months following the simplification of survey technique in June 1951 the proportion averaged 19.8 per cent., and during April–December 1953, 19.0 per cent. The true percentage for the household population which the Survey sought to cover cannot be precisely determined from official sources; it was no doubt somewhat higher than the 17 per cent. given by the 1951 Census, since the survey sample excluded by definition those persons (mainly adults) who ate fewer than 16 meals at home during the survey week.

9. The response rate was lower in the towns, especially the conurbations, than in rural areas, and differences between regions were also statistically significant; in the second half of the year, 61 log books were received per 100 addresses selected in the North-West compared with 50 in the counties of London and Middlesex. Full particulars have been given elsewhere by W. L. Readman.²

¹ P. G. Gray, T. Corlett and P. Frankland, *The Register of Electors as a sampling frame* (1950) London: The Social Survey.

² *Proceedings of the Nutrition Society*, 1955, Vol. 14, p. 60.

10. The numbers of households and of persons surveyed in each quarter of 1953 are shown in Table 1. An average of 2,849 households per quarter was achieved, with a mean household size of 3·23 persons, compared with 3·32 persons in 1952; the decrease in size, which was confined to the towns, may be associated with the general adoption of evening interviewing. It will be seen that the average household size was consistently greater in the conurbations than in other urban areas, though less than in rural districts. Rural households amounted to 20·7 per cent. of the total number of households, compared with 21·2 per cent. in 1952.

TABLE 1
Composition of the Sample, 1953

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Year
HOUSEHOLDS IN CONURBATIONS					
Households	1,199	1,071	916	1,113	4,299
Persons	3,842	3,507	2,924	3,643	13,916
Persons per household ...	3·20	3·27	3·19	3·27	3·24
OTHER URBAN HOUSEHOLDS					
Households	1,196	1,265	1,061	1,212	4,734
Persons	3,792	3,991	3,321	3,790	14,894
Persons per household ...	3·17	3·15	3·13	3·13	3·15
RURAL HOUSEHOLDS					
Households	444	659	586	673	2,362
Persons	1,415	2,183	2,030	2,318	7,946
Persons per household ...	3·19	3·31	3·46	3·44	3·36
ALL HOUSEHOLDS					
Households	2,839	2,995	2,563	2,998	11,395
Persons	9,049	9,681	8,275	9,751	36,756
Persons per household ...	3·19	3·23	3·23	3·25	3·23

11. Table 2 shows the distribution of the sample by social class (based on the ascertained or imputed gross income of the head of the household) and household composition. The changes in the income levels dividing the four broad social classes have, of course, diminished the proportion of the sample in Classes A and B and increased that in Class D, the upper limit of which was raised from £4 10s. to £6 per week. Above this level of income the average composition of households in different income grades did not differ widely, but at lower incomes the average size of the household and more especially the number of children fell off, so that Class D households, especially those containing no earner, differed greatly in demographic character from those in Classes A, B and C.

12. As before, households with one man and one woman with varying numbers of children and adolescents, comprising some 64 per cent. of the whole sample, have been classified in detail. Two-adult households have been subdivided into younger couples (both under 55) and older couples. The latter were more numerous in Class D, the former in Classes B and C; in Class A the numbers were nearly equal. The adults in classified households containing children were in nearly all cases both under 55.

TABLE 2
Composition of the Sample by Social Class and Household Composition, 1953

	Social Class										All households		Average size		
	A		B		C		D				No.	Per cent			
	No.	Per cent	No.	Per cent	No.	Per cent	Excluding O.A.P.		O.A.P.						
							with earners	without earners	No.	Per cent	No.	Per cent			
Households with one male and one female adult and:															
No other:															
(a) One or both adults aged 55 or over	70	10.4	201	7.5	442	9.8	362	16.8	210	34.6	298	36.9	1,583	9.1	2.00
(b) Both adults under 55	71	10.6	305	11.5	523	11.6	128	6.0	4	0.7	—	—	1,031	13.9	2.00
1 child	73	10.8	443	16.7	713	15.9	90	4.2	10	1.6	6	0.8	1,335	11.7	3.00
2 children	91	13.5	423	15.9	550	12.2	70	3.3	2	0.3	—	—	1,136	10.0	4.00
3 children	23	3.4	142	5.3	209	4.6	24	1.1	2	0.3	—	—	400	3.5	5.00
4 or more children	7	1.0	70	2.6	91	2.0	14	0.7	3	0.5	1	0.1	186	1.6	6.41
Adolescents only	45	6.7	194	7.3	299	6.7	84	3.9	4	0.7	3	0.4	629	5.5	3.27
Adolescents and children	34	5.1	229	8.6	383	8.5	91	4.2	1	0.2	—	—	738	6.5	5.14
	414	61.5	2,007	75.4	3,210	71.3	863	40.2	236	38.9	308	38.2	7,038	61.8	3.24
Other households:															
Adults only	125	18.6	300	11.3	583	13.0	797	37.1	328	54.0	491	60.8	2,624	23.0	2.26
With adolescents but no children	29	4.3	92	3.4	214	4.8	157	7.3	4	0.7	1	0.1	497	4.4	3.88
With children	105	15.6	262	9.9	492	10.9	331	15.4	39	6.4	7	0.9	1,236	10.8	4.92
259	38.5	654	24.6	1,289	28.7	1,285	59.8	371	61.1	499	61.8	4,357	38.2	3.20	
All household types	673	100.0	2,661	100.0	4,499	100.0	2,148	100.0	607	100.0	807	100.0	11,395	100.0	3.23
Average size of household	3.43		3.56		3.55		3.11	1.82		1.53		3.23			

13. Table 3 shows the average composition of households in each social class. It will be seen that the average number of children in the household was again highest in Class B, and of adolescents in Class C. Class D households with earners differed from Class C households in containing more old people and fewer children, especially young children. Class D households without earners consisted mainly of elderly adults; in this group, as in Old Age Pensioner households, women greatly outnumbered men.

TABLE 3
Household Composition of Social Classes, 1953

	Social Class						All households
	A	B	C	D		O.A.P.	
				excluding O.A.P.			
				with earners	without earners		
Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	
PERCENTAGE OF TOTAL PERSONS IN EACH SOCIAL CLASS:							
Men, 21-64... ..	27.1	28.9	29.7	25.8	8.3	1.4	27.0
Men, 65 and over ...	2.8	1.5	1.9	6.8	19.1	29.4	4.2
Women, 21-59 ...	31.8	28.4	28.4	29.9	19.6	4.5	27.8
Women, 60 and over	5.6	3.0	3.8	13.4	41.4	62.9	8.5
Adolescents, male, 14-20	3.5	3.7	4.2	3.9	0.8	0.2	3.8
Adolescents, female, 14-20	4.0	4.3	4.5	4.7	0.8	0.2	4.2
Children, under 1 ...	1.4	1.6	1.9	0.8	0.6	—	1.5
Children, 1-4 ...	8.3	9.8	8.9	4.4	2.4	0.6	7.8
Children, 5-13 ...	15.5	18.8	16.7	10.3	7.0	0.8	15.2
	100.0	100.0	100.0	100.0	100.0	100.0	100.0
AVERAGE NUMBER IN EACH HOUSEHOLD:							
Adults	2.31	2.20	2.26	2.36	1.61	1.50	2.18
Adolescents... ..	0.26	0.29	0.31	0.27	0.03	0.01	0.26
Children	0.86	1.07	0.98	0.48	0.18	0.02	0.79
	3.43	3.56	3.55	3.11	1.82	1.53	3.23

14. Table 4 indicates that the majority of older childless couples were in Class D, and that even where both members were under 55, childless couples tended to fall into a lower income grade than households of one man and one woman with children; but, although the latter group were on the average of a higher social class, the standard of their diet was, of course, much lower.

TABLE 4
Proportions of Differing Types of Households by Social Class

Social Class		One male and one female adult and:					
		No other		1 child	2 children	3 children	4 or more children
		one or both adults aged 55 or over	Both adults under 55				
A and B	...	17	36	39	45	41	41
C	...	28	51	53	49	52	49
D	...	55	13	8	6	7	10
		100	100	100	100	100	100

Sampling Variations

15. Most of the figures given in this Report are averages per person per week and are subject to sampling fluctuations. Estimates of the coefficients of variation of expenditure and consumption per person for a number of individual foods and groups of foods have been obtained from a random sample of 1,000 households surveyed during April–October 1953. Variances calculated from this sample will of course tend to be somewhat larger than corresponding figures for a single quarter, because of seasonal and other changes during the period. The coefficients of variation quoted for foods on which average expenditure shows a marked seasonal pattern will in general be too high for the peak season of purchase, and too low for the off season.

16. Coefficients of variation calculated from the whole sample of 1,000 households are given in columns 2 (a) and 2 (b) of Table 5, and percentage standard errors based on these, and applicable to the quarterly averages for all households, are shown in columns 1 (a) and 1 (b). The average sample size during 1953 was 2,849 households per quarter. The percentage standard errors of annual averages would be one-half of the standard errors shown in Table 5, since the annual figures were computed from four times as many households.

17. Coefficients of variation relating to all households are in general different from those for a particular income grade or household type. The figures given for all households may be applied without risk of serious error to the averages for Social Classes A, B and C, and Class D as a whole, but not to Old Age Pensioner households or to households of a particular composition. Thus, the coefficients of variation for younger childless couples and households of one man and one woman with children, adolescents, or both, were found to be smaller than those for all households. Averaged results for these groups, which are referred to as “family households”, have been obtained from 491 households of these types included in the sample of 1,000, and the estimates for the main foods are given in columns 3 (a) and 3 (b) of Table 5. They are considered sufficiently reliable for application to any type of family household.

18. For a number of foods and food groups, estimated coefficients of variation are also given for older couples in columns 4 (a) and 4 (b) and for old age pensioner households in columns 5 (a) and 5 (b). These figures are based on samples of 121 and 62 households respectively.

Coefficients of Variation and Standard Errors of Expenditure and Quantity obtained for Consumption per person per week

	Percentage Standard Error		Coefficients of Variation										
	All households (Quarterly sample)		All households		Family households (a)		Older couples (one or both over 55)		Old Age Pensioner households				
	Expenditure 1 (a)	Consumption 1 (b)	Expenditure 2 (a)	Consumption 2 (b)	Expenditure 3 (a)	Consumption 3 (b)	Expenditure 4 (a)	Consumption 4 (b)	Expenditure 5 (a)	Consumption 5 (b)			
Col. No.	...	...	...	...	...	...	...	...	...	...	...	...	...
MILK, LIQUID:													
Full price	1.1	1.0	58	55	51	50	42	39	47	46			
Welfare	3.8	3.6	205	193									
School	—	4.0	—	211									
Welfare and school	3.8	2.9	205	157									
TOTAL LIQUID MILK	1.0	0.7	52	38	44	33	42	40					
MILK, CONDENSED	4.2	4.2	225	225	210	208	295	299	415	448			
CHEESE:													
Rationed	1.6	1.6	85	85	83	84	96	96	110	105			
Unrationed	3.9	4.1	208	220	202	198	204	220	293	288			
TOTAL	1.6	1.5	84	78	79	75	88	83					
MEAT:													
Beef and veal	1.7	1.7	91	93									
Mutton and lamb	2.3	2.3	125	124									
Pork	4.7	4.6	249	245									
Corned meat	7.1	7.1	377	379									
Bacon	1.4	1.5	74	81	70	75	75	80	76	96			
Liver	4.1	4.2	221	222									
Offals (other than liver)	6.0	6.9	321	366									
Rabbit, game and other meat	7.6	7.3	404	388									
Cooked and canned ham	2.9	3.3	157	174									
Other cooked meat	4.3	4.4	230	235									
Other canned meat	3.4	3.2	182	173									
Sausages (uncooked)	1.9	1.9	104	102									
Other meat products	3.4	3.7	181	196									
TOTAL CARCASE MEAT	1.0	1.1	54	57	45	48	43	45	46	58			
TOTAL OTHER MEAT	1.1	1.1	59	60	50	53	71	69					

(a) Younger couples (both under 55) and households of one man and one woman with children, adolescents or both.

TABLE 5—continued

	Col. No.	Percentage Standard Error		Coefficients of Variation															
		All households (Quarterly sample)		All households		Family households		Older couples		Old Age Pensioner households									
		Expenditure 1 (a)	Consumption 1 (b)	Expenditure 2 (a)	Consumption 2 (b)	Expenditure 3 (a)	Consumption 3 (b)	Expenditure 4 (a)	Consumption 4 (b)	Expenditure 5 (a)	Consumption 5 (b)								
FISH:																			
White, fresh cheap	...	2.8	2.9	151	156														
White, fresh expensive	...	6.6	6.4	352	341														
Fat, fresh	...	10.4	8.1	554	435														
White, processed	...	7.2	7.0	382	375														
Fat, processed	...	6.2	6.2	330	331														
Cooked	...	4.4	4.5	237	239														
Canned and bottled	...	5.7	5.9	306	313														
Manufactured	...	7.5	9.0	403	482														
TOTAL FISH	...	1.8	1.9	96	100			90	95	99	104	121	140						
EGGS:																			
Shell, hens'	...	1.4	1.3	74	71			66	65	73	77	92	116						
FATS:																			
Butter	...	0.8	0.9	43	48			39	39	56	94	48	66						
Margarine	...	1.1	1.0	58	58			50	50	74	72	62	63						
Lard and compound cooking fat	...	1.3	1.3	71	69			62	61	88	85	103	119						
Suet and dripping	...	5.2	5.5	280	293														
TOTAL FATS	...	0.7	0.8	38	42			34	36	55	64								

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SUGAR AND PRESERVES:										
Sugar ...	1-2	1-2	62	56	74	75	62	66		
Honey and preserves ...	2-3	2-2	115							
Syrup and treacle ...	4-9	4-9	264							
TOTAL HONEY, PRESERVES, SYRUP AND TREACLE ...	2-1	2-1	113	107	137	137	131	147		
VEGETABLES:										
Old potatoes ...	2-3	2-0	122							
New potatoes ...	3-7	3-2	196							
Chips and crisps ...	4-5	4-6	238							
Carrots ...	3-1	2-8	166							
Other root vegetables ...	4-2	3-9	222							
Cabbages ...	3-9	2-8	206							
Brussels sprouts ...	5-6	5-1	298							
Cauliflower ...	4-3	4-0	228							
Leafy salads ...	3-6	3-4	192							
Fresh legumes ...	5-3	4-4	282							
Onions, shallots, etc. ...	2-7	2-5	144							
Miscellaneous fresh vegetables ...	4-3	4-4	230							
Dried pulses ...	5-3	5-6	282							
Canned pulses ...	2-2	2-3	120							
TOTAL POTATOES (including chips)	1-6	1-2	85	77	98	64	108	59		
TOTAL FRESH GREEN VEGETABLES	2-2	1-8	118	104	126	112	137	123		
TOTAL OTHER VEGETABLES ...	1-5	1-5	82	71	106	93	118	109		
FRUIT:										
Tomatoes, fresh and quick frozen	2-0	1-8	107							
Tomatoes, canned and bottled	8-2	8-6	437							
Oranges ...	3-3	3-4	176							
Other citrus fruits ...	6-6	7-3	354							
Apples and pears ...	2-7	3-2	145							
Stone fruit ...	7-2	7-4	382							
Soft fruit ...	7-2	6-7	385							
Bananas ...	3-1	3-1	167							
Canned and bottled fruit	3-5	3-5	189							
Dried vine fruit ...	4-4	4-4	235							
Nuts and fruit and nut products ...	6-5	6-1	346							
TOTAL FRESH FRUIT ...	1-7	1-7	93	84	90	88	121	91		
TOTAL OTHER FRUIT ...	2-7	2-7	146	126	223	196	230	254		

TABLE 5—continued

Col. No.	Percentage Standard Error		Coefficients of Variation							
	All households (Quarterly sample)		All households		Family households		Older couples (one or both over 55)		Old Age Pensioner households	
	Expenditure 1 (a)	Consumption 1 (b)	Expenditure 2 (a)	Consumption 2 (b)	Expenditure 3 (a)	Consumption 3 (b)	Expenditure 4 (a)	Consumption 4 (b)	Expenditure 5 (a)	Consumption 5 (b)
CEREALS:										
National flour ...	2.5	2.5	136	136	140	139	118	120	153	154
National bread ...	1.1	1.1	57	57	52	52	66	68	57	59
Rolls and French bread ...	5.8	5.5	312	292						
Other bread ...	4.2	4.0	222	216						
Buns, scones and teacakes ...	4.0	4.3	213	228						
Biscuits ...	1.7	1.7	93	89	80	76	107	103	124	121
Cakes and pastries ...	2.2	2.2	117	115						
Puddings ...	6.6	6.1	350	327						
Oatmeal and oat products ...	5.1	5.2	271	277						
Breakfast cereals ...	2.9	3.1	154	163						
Rice and barley ...	4.3	4.3	230	232						
Cereals, flour base ...	5.5	5.5	292	293						
Other cereals ...	3.7	3.9	198	210						
BEVERAGES:										
Tea ...	1.1	1.2	61	62	56	55	56	56	61	62
Coffee, extracts and essences ...	5.2	5.7	276	302						
Cocoa and drinking chocolate ...	6.4	6.3	339	338						
Branded food drinks ...	8.1	9.5	431	509						
MISCELLANEOUS:										
Spreads and dressings ...	6.2	6.3	333	338						
Soups and extracts ...	4.0	4.5	216	241						
TOTAL ALL FOODS ...	0.6		34		25		34		31	

19. Estimates of the percentage standard error of most of the averages per person quoted in this report may be obtained by dividing the appropriate coefficient of variation by the square root of the number of households from which the average was derived, which may be found in Table 2 of this Appendix. For example, the average expenditure on cheese by households of one man and one woman with two children for the year 1953 was 4.20 pence per person per week (Table 37). The number of such households was 1,136 (Table 2, Appendix A) and the coefficient of variation for family households is given in column 3 (a) of Table 5 as 79 hence the approximate percentage standard error is $79/\sqrt{1,136}=2.3$ per cent., and the absolute standard error $4.20d. \times 0.023 = 0.10$ pence.

20. It should be noted that for many foods fairly high coefficients of variation of expenditure per person are quoted. This indicates that a high proportion of the households were either habitual non-consumers or did not purchase the food during the survey week. The following table gives an approximate empirical relation between the proportion of households buying during the survey week and the coefficient of variation of expenditure per person.

<i>Percentage of households making a purchase in the survey week</i>	<i>Expected percentage coefficient of variation of expenditure per person</i>
50	135
30	195
20	250
10	365
5	520
2	810

21. Where the frequency of purchase is low, the distribution of the sample mean will depart from the normal frequency distribution, unless the samples are very large. Accordingly, coefficients of variation have not been quoted where fewer than 5 per cent. of households purchased the food in question during the survey week.

22. If the standard errors are compared with those given for an earlier period in Appendix A of the First Report, it should be borne in mind that the present figures relate to the quantities obtained for consumption during the survey week, which are in general more variable than actual consumption during that week, since the irregularity of purchases tends to be cushioned by changes in larger stocks.

23. Table 6 gives estimates of the coefficients of variation of energy value and nutrient intake per person per week, derived from the same sample of 1,000 households. They may be compared with estimates given elsewhere (*Proc. Nutr. Soc.*, vol. 14 (1955), p. 62) which were obtained from 1,066 households surveyed in June 1951. In general the coefficients of variation found in the 1953 sample are slightly higher, presumably because of the relaxation of control on certain foods, and because the June 1951 results were not affected by seasonal changes in the diet.

TABLE 6
Coefficients of Variation of Energy Value and Nutrient Intake per person per day

	Percentage Standard Error	Coefficients of Variation			
		All households (Quarterly Sample)	All households	Family households	Older couples	O.A.P. households
Calories ...	0.5	27	23	27	29
Vegetable protein ...	0.7	36	33	36	39
Animal protein ...	0.6	31	25	30	33
Fat ...	0.5	29	22	34	36
Calcium ...	0.5	27	23	28	30
Iron ...	0.6	32	28	31	34
Vitamin A ...	1.2	62	57	60	59
Vitamin B ₁ ...	0.6	30	25	30	33
Riboflavin ...	0.6	30	25	28	31
Nicotinic acid ...	0.6	33	28	31	30
Vitamin C ...	1.0	56	48	57	54
Vitamin D ...	1.4	75	70	91	116

APPENDIX B

TABLES OF CONSUMPTION, EXPENDITURE AND PRICES

TABLE 1

Domestic Food Expenditure, 1953

All Households

pence per head per week

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Yearly average
MILK AND MILK PRODUCTS					
Liquid—					
Full price	26·18	24·62	26·73	25·55	25·77
Welfare	1·12	1·07	1·03	1·04	1·07
School	—	—	—	—	—
Condensed—					
Skimmed, sweetened ...	0·23	0·11	0·10	0·08	0·13
Whole, sweetened	0·77	0·66	0·35	0·27	0·51
Whole, unsweetened ...	0·71	0·85	0·89	0·74	0·80
Dried—					
Whole (N.D.M.) and half cream	0·17	0·23	0·23	0·17	0·20
Whole, branded	0·15	0·14	0·15	0·17	0·15
Other milk	0·02	0·03	0·03	0·01	0·02
Total milk	29·35	27·71	29·51	28·03	28·65
Cream	0·02	0·64	0·80	0·50	0·49
Cheese (rationed)	2·86	3·35	3·55	3·49	3·31
Cheese (unrationed) ...	1·67	1·67	1·55	1·50	1·60
MEAT AND MEAT PRODUCTS					
Beef and veal	11·99	12·43	21·38	20·24	16·51
Mutton and lamb	12·53	12·59	11·85	12·13	12·28
Pork	2·58	3·81	3·43	4·30	3·53
Total carcass meat ...	27·10	28·83	36·66	36·67	32·32
Canned corned meat ...	0·01	1·37	0·50	0·39	0·57
Bones	0·18	0·10	0·05	0·10	0·11
Bacon	14·61	15·75	15·31	14·94	15·16
Liver	1·41	1·56	1·39	1·29	1·41
Offals (other than liver)	1·15	0·89	0·79	0·81	0·91
Poultry	1·64	1·13	1·25	1·39	1·35
Rabbit, game and other meat	1·61	0·34	0·38	1·35	0·92
Cooked and canned ham ...	4·71	4·54	4·51	3·99	4·44
Other cooked meat	1·81	1·91	2·02	1·99	1·93
Other canned meat	4·37	4·09	3·25	3·09	3·70
Sausages (uncooked) ...	7·00	6·62	5·59	6·40	6·40
Other meat products ...	3·45	2·80	2·15	2·64	2·76
Total bacon and un- rationed meat and meat products	41·95	41·10	37·19	38·38	39·66

TABLE 1—continued

pence per head per week

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Yearly average
FISH					
White, fresh, cheap ...	4·58	4·16	3·53	3·37	3·91
White, fresh, expensive ...	1·50	1·51	1·38	1·37	1·44
Fat, fresh ...	0·47	0·40	0·31	0·44	0·41
White, processed ...	0·99	0·72	0·60	0·67	0·75
Fat, processed... ..	0·59	0·37	0·46	0·56	0·50
Shell	0·36	0·27	0·30	0·31	0·31
Cooked... ..	1·79	1·82	1·98	1·75	1·84
Canned and bottled ...	0·90	1·53	0·67	0·52	0·91
Manufactured	0·36	0·31	0·24	0·32	0·31
Total fish	11·54	11·09	9·47	9·31	10·38
EGGS					
Shell, hens'	15·68	18·75	18·07	17·77	17·57
Shell, other	0·08	0·12	0·10	0·05	0·09
Total eggs	15·76	18·87	18·17	17·82	17·66
FATS					
Butter	7·14	7·32	9·48	8·90	8·21
Margarine	4·15	4·27	4·30	5·13	4·46
Lard and compound cooking fat	2·29	2·23	2·36	2·55	2·36
Suet and dripping	0·91	0·63	0·55	0·87	0·74
Other fats, oils and creams ...	0·21	0·22	0·19	0·19	0·21
Total fats... ..	14·70	14·67	16·88	17·64	15·98
SUGAR AND PRESERVES					
Sugar	4·52	5·84	7·09	7·36	6·20
Honey and preserves	4·64	4·53	3·91	3·82	4·23
Syrup and treacle	1·11	0·86	0·67	0·53	0·79
Total sugar and preserves	10·27	11·23	11·67	11·71	11·22
VEGETABLES					
Old potatoes	8·73	6·26	2·22	7·17	6·10
New potatoes	0·24	6·15	4·45	0·01	2·71
Chips	1·03	1·03	1·14	0·91	1·03
Crisps	0·16	0·17	0·16	0·11	0·15
Carrots... ..	1·14	0·79	0·73	0·87	0·88
Other root vegetables... ..	0·90	0·41	0·43	0·63	0·59
Cabbages	1·57	2·28	0·80	0·75	1·35
Brussels sprouts	1·88	0·01	0·20	1·35	0·86
Cauliflower	1·13	1·30	0·67	0·84	0·99
Leafy salads	0·71	2·10	0·90	0·41	1·03
Fresh legumes... ..	0·01	0·65	2·87	0·11	0·91
Quick frozen legumes	0·19	0·11	0·01	0·15	0·12
Other fresh green vegetables... ..	0·06	0·08	0·01	0·03	0·05
Onions, shallots, etc.	1·78	1·50	1·05	1·21	1·39
Miscellaneous fresh vegetables	0·69	1·66	1·17	0·87	1·10
Dried pulses	1·01	0·82	0·40	0·74	0·74
Canned pulses... ..	4·26	4·16	2·67	3·47	3·64
Canned vegetables (other than pulses)	0·14	0·20	0·14	0·08	0·14
Vegetable products	0·14	0·13	0·06	0·10	0·11
Total vegetables	25·77	29·81	20·08	19·81	23·89

TABLE 1—continued

pence per head per week

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Yearly average
FRUIT					
Tomatoes (fresh and quick frozen)	2.48	8.02	7.27	2.94	5.18
Tomatoes (canned and bottled)	0.89	0.70	0.44	0.56	0.65
Oranges	2.76	2.63	1.60	1.47	2.12
Other citrus fruits	0.60	0.63	0.51	0.53	0.57
Apples and pears	4.19	3.97	3.66	3.83	3.91
Stone fruit	0.12	0.39	2.14	0.05	0.68
Soft fruit	0.18	0.99	1.25	0.30	0.68
Quick frozen soft fruit	0.02	0.03	0.02	0.01	0.02
Bananas	2.13	1.97	3.05	3.33	2.62 x
Other fresh fruit	0.42	0.34	0.06	0.05	0.22
Canned and bottled fruit	1.35	2.81	2.39	3.87	2.61
M.O.F. orange juice	0.09	0.09	0.11	0.08	0.09
Other fruit juices	0.21	0.21	0.21	0.23	0.22
Dried vine fruit	0.37	1.04	0.81	1.45	0.92
Other dried fruit	0.28	0.11	0.06	0.24	0.17
Nuts and fruit and nut products	0.62	0.48	0.40	1.74	0.81
Total fruit	16.71	24.41	23.98	20.68	21.47
CEREALS					
National flour	3.26	3.70	3.74	3.62	3.58
White flour	0.01	...	0.03	0.39	0.11
National bread	14.36	14.99	14.47	13.75	14.39
White bread ... ..	...	—	0.35	0.50	0.21
Rolls and French bread	1.16	1.26	1.21	1.17	1.20
Other bread	1.91	2.11	2.02	1.95	2.00
Sandwiches and bread and butter	0.03	0.05	0.05	0.04	0.04
Fruit bread	0.28	0.20	0.22	0.22	0.23
Buns, scones and teacakes	1.65	1.77	1.57	1.65	1.66
Biscuits... ..	8.28	8.41	8.68	8.37	8.44
Cakes and pastries	9.01	8.80	8.55	7.86	8.56
Puddings	0.50	0.69	0.91	0.66	0.69
Oatmeal and oat products	1.11	0.70	0.53	0.92	0.82
Breakfast cereals	1.85	2.17	2.58	2.07	2.17
Rice and barley	0.84	0.73	0.72	0.84	0.78
Cereals, flour base	0.92	0.75	0.67	0.68	0.76
Other cereals	1.04	1.09	1.08	1.10	1.08
Total cereals	46.21	47.42	47.38	45.79	46.72
BEVERAGES					
Tea	8.88	9.14	9.74	10.04	9.45
Coffee, bean and ground	0.54	0.44	0.41	0.42	0.45
Coffee, extracts and essences... ..	1.39	1.21	1.18	1.37	1.29
Cocoa and drinking chocolate	0.61	0.46	0.38	0.55	0.50
Branded food drinks	0.86	0.72	0.68	0.82	0.77
Total beverages	12.28	11.97	12.39	13.20	12.46
MISCELLANEOUS					
Invalid and baby foods	0.33	0.30	0.20	0.14	0.24
Spreads and dressings	0.13	0.64	0.52	0.12	0.35
Soups and extracts	2.29	1.60	1.43	2.01	1.83
Miscellaneous (expenditure only)... ..	3.89	4.44	4.34	4.37	4.26
Total miscellaneous foods	6.64	6.98	6.49	6.64	6.68
TOTAL ALL FOODS	262.83	279.75	275.77	271.17	272.49

TABLE 2
Domestic Food Consumption, 1953
All Households

per head per week

	1st Quarter oz.(a)	2nd Quarter oz.(a)	3rd Quarter oz.(a)	4th Quarter oz.(a)	Yearly average oz.(a)
MILK AND MILK PRODUCTS					
Liquid—					
Full price pt.	4·03	4·00	3·97	3·91	3·98
Welfare pt.	0·65	0·62	0·59	0·60	0·62
School pt.	0·19	0·18	0·15	0·22	0·18
Condensed—					
Skimmed, sweetened eq. pt.	0·03	0·02	0·01	0·01	0·02
Whole, sweetened ... eq. pt.	0·08	0·07	0·04	0·03	0·06
Whole, unsweetened eq. pt.	0·08	0·10	0·10	0·09	0·09
Dried—					
Whole (N.D.M.) and half cream eq. pt.	0·08	0·09	0·11	0·08	0·09
Whole, branded ... eq. pt.	0·02	0·02	0·02	0·02	0·02
Other milk pt.	...	...	0·01	0·01	...
Total milk pt. or eq. pt.	5·16	5·10	5·00	4·97	5·06
Cream pt.	...	0·01	0·01	0·01	0·01
Cheese (rationed)	1·74	2·02	2·13	2·12	2·00
Cheese (unrationed)	0·47	0·52	0·50	0·49	0·50
MEAT AND MEAT PRODUCTS					
Beef and veal	6·02	6·13	10·34	9·86	8·08
Mutton and lamb	6·43	6·24	5·91	6·13	6·18
Pork	1·17	1·68	1·64	1·95	1·60
Total carcase meat ...	13·62	14·05	17·89	17·94	15·86
Canned corned meat ... ..	...	0·46	0·17	0·13	0·19
Bones	0·74	0·42	0·29	0·64	0·52
Bacon	4·75	5·16	5·27	5·44	5·15
Liver	0·68	0·74	0·67	0·62	0·68
Offals (other than liver) ...	0·97	0·68	0·58	0·70	0·73
Poultry	0·62	0·53	0·61	0·64	0·60
Rabbit, game and other meat	1·10	0·26	0·35	1·08	0·69
Cooked and canned ham ...	0·82	0·78	0·84	0·79	0·81
Other cooked meat	0·50	0·47	0·48	0·46	0·48
Other canned meat	1·82	1·73	1·35	1·29	1·55
Sausages, uncooked	3·87	3·57	3·06	3·50	3·50
Other meat products	2·02	1·62	1·22	1·49	1·58
Total bacon and un- rationed meat and meat products	17·89	16·42	14·89	16·78	16·48
FISH					
White, fresh, cheap	3·18	2·87	2·44	2·37	2·72
White, fresh, expensive ...	0·77	0·79	0·74	0·70	0·75
Fat, fresh	0·51	0·39	0·35	0·57	0·45
White, processed	0·68	0·51	0·42	0·46	0·52
Fat, processed	0·57	0·40	0·49	0·58	0·51
Shell	0·10	0·11	0·07	0·10	0·09
Cooked	0·88	0·81	0·90	0·78	0·84
Canned and bottled	0·31	0·50	0·25	0·19	0·31
Manufactured	0·14	0·12	0·08	0·12	0·11
Total fish	7·14	6·50	5·74	5·87	6·30

TABLE 2—continued

	per head per week				
	1st Quarter oz.(a)	2nd Quarter oz.(a)	3rd Quarter oz.(a)	4th Quarter oz.(a)	Yearly average oz.(a)
EGGS					
Shell, hens' No.	3.79	4.64	3.73	3.73	3.97
Shell, other No.	0.01	0.03	0.02	0.01	0.02
Total eggs No.	3.80	4.67	3.75	3.74	3.99
FATS					
Butter	3.21	3.28	4.14	3.58	3.56
Margarine	4.15	4.28	4.13	4.56	4.28
Lard and compound cooking fat	2.01	1.94	1.99	2.04	2.00
Suet and dripping	0.58	0.44	0.46	0.68	0.54
Other fats, oils and creams ...	0.10	0.11	0.09	0.11	0.10
Total fats	10.05	10.05	10.81	10.97	10.48
SUGAR AND PRESERVES					
Sugar	10.20	13.16	15.73	15.20	13.57
Honey and preserves	4.23	4.14	3.62	3.54	3.88
Syrup and treacle	1.72	1.34	1.04	0.80	1.22
Total sugar and preserves	16.15	18.64	20.39	19.54	18.67
VEGETABLES					
Old potatoes	67.15	45.03	21.17	65.26	49.65
New potatoes	0.44	14.03	37.96	0.03	13.12
Chips	1.30	1.36	1.49	1.21	1.34
Crisps	0.06	0.07	0.05	0.04	0.06
Carrots	3.94	2.27	3.30	4.14	3.41
Other root vegetables	3.88	1.32	2.36	3.33	2.72
Cabbages	5.37	6.99	5.44	6.12	5.98
Brussels sprouts	4.23	0.05	0.41	5.81	2.62
Cauliflower	1.96	2.68	2.16	2.71	2.38
Leafy salads	0.33	2.26	2.00	0.40	1.25
Fresh legumes	0.01	1.84	13.74	0.58	4.05
Quick frozen legumes	0.10	0.05	0.01	0.08	0.06
Other fresh green vegetables ...	0.20	0.53	0.16	0.16	0.26
Onions, shallots, etc.	4.12	3.12	3.21	3.93	3.59
Miscellaneous fresh vegetables	0.43	1.30	2.29	1.30	1.33
Dried pulses	0.94	0.79	0.38	0.73	0.71
Canned pulses	4.66	4.70	2.99	4.01	4.08
Canned vegetables (other than pulses)	0.14	0.21	0.14	0.08	0.14
Vegetable products	0.12	0.10	0.05	0.09	0.09
Total vegetables	99.38	88.70	99.31	100.01	96.84
FRUIT					
Tomatoes (fresh and quick frozen)	2.28	5.21	7.89	3.88	4.82
Tomatoes (canned and bottled)	0.83	0.65	0.40	0.52	0.60
Oranges	5.22	4.47	2.35	2.31	3.58
Other citrus fruit	0.87	0.92	0.56	0.59	0.73
Apples and pears	7.23	4.99	7.15	8.71	7.02
Stone fruit	0.09	0.37	3.40	0.08	0.99
Soft fruit	0.10	1.31	2.67	0.35	1.11
Quick frozen soft fruit	0.01	0.02	0.02	...	0.01
Bananas	2.25	1.88	2.88	3.21	2.55
Other fresh fruit	0.66	2.81	0.61	0.05	1.04
Canned and bottled fruit	1.48	2.63	1.81	3.30	2.30
M.O.F. orange juice	0.11	0.10	0.13	0.10	0.11

TABLE 2—continued

per head per week

	1st Quarter oz.(a)	2nd Quarter oz.(a)	3rd Quarter oz.(a)	4th Quarter oz.(a)	Yearly average oz.(a)
FRUIT—continued					
Other fruit juices	0·11	0·14	0·11	0·10	0·12
Dried vine fruit	0·39	1·09	0·87	1·61	0·99
Other dried fruit	0·22	0·11	0·06	0·17	0·14
Nuts and fruit and nut products	0·39	0·24	0·21	0·84	0·42
Total fruit	22·24	26·94	31·12	25·82	26·53
CEREALS					
National flour	8·60	8·65	8·50	8·34	8·52
White flour	0·03	0·02	0·06	0·81	0·23
National bread	50·27	52·31	50·49	47·96	50·25
White bread	0·01	—	0·82	1·17	0·50
Rolls and French bread, etc.	1·74	1·68	1·70	1·63	1·69
Other bread	4·89	4·88	4·90	4·64	4·82
Sandwiches and bread and butter	0·02	0·02	0·02	0·02	0·02
Fruit bread	0·36	0·25	0·25	0·28	0·28
Buns, scones and teacakes ...	1·70	1·68	1·45	1·63	1·62
Biscuits... ..	5·08	5·11	5·24	4·99	5·10
Cakes and pastries	4·62	4·45	4·22	3·99	4·32
Puddings	0·34	0·43	0·58	0·41	0·44
Oatmeal and oat products ...	1·57	0·99	0·74	1·33	1·16
Breakfast cereals	1·33	1·54	1·84	1·49	1·55
Rice and barley	0·95	0·78	0·76	0·90	0·85
Cereals, flour base	0·87	0·70	0·62	0·64	0·71
Other cereals	0·71	0·70	0·71	0·71	0·71
Total cereals	83·09	84·19	82·90	80·94	82·77
BEVERAGES					
Tea	2·60	2·60	2·68	2·73	2·65
Coffee, bean and ground ...	0·12	0·10	0·09	0·09	0·10
Coffee, extracts and essences	0·27	0·24	0·24	0·26	0·25
Cocoa and drinking chocolate	0·25	0·19	0·17	0·22	0·21
Branded food drinks	0·23	0·19	0·18	0·22	0·20
Total beverages	3·47	3·32	3·36	3·52	3·41
MISCELLANEOUS					
Invalid and baby foods ...	0·16	0·14	0·10	0·06	0·12
Spreads and dressings ...	0·05	0·25	0·21	0·05	0·14
Soups and extracts	1·52	0·95	0·89	1·33	1·17
Total miscellaneous foods	1·73	1·34	1·20	1·44	1·43

(a) Except pints (or equivalent pints) of milk and cream and number of eggs.

TABLE 3
Domestic Food Prices, 1953
All Households

	Average prices paid (a)				
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Yearly average
MILK AND MILK PRODUCTS					
Liquid—					
Full price	6·68	6·38	7·01	6·91	6·74
Welfare	1·74	1·75	1·78	1·74	1·75
School	—	—	—	—	—
Condensed—					
Skimmed, sweetened	6·93	7·12	6·86	6·15	6·82
Whole, sweetened	9·97	10·14	9·94	9·39	9·94
Whole, unsweetened	8·85	8·78	8·60	7·72	8·46
Dried—					
Whole (N.D.M.) and half-cream	2·04	2·48	2·20	2·09	2·21
Whole, branded	8·61	8·14	8·54	7·88	8·25
Other milk	15·52	9·96	10·82	10·00	11·10
Cream	46·10	92·85	92·74	84·99	89·37
Cheese (rationed)	26·54	26·50	26·62	26·39	26·45
Cheese (unrationed)	56·71	51·59	49·74	48·90	51·65
CARCASE MEAT					
Beef and veal	31·85	32·45	33·04	32·85	32·64
Mutton and lamb	31·25	32·32	32·12	31·76	31·86
Pork	35·35	36·22	33·91	35·41	35·29
OTHER MEAT AND MEAT PRODUCTS					
Canned corned meat	36·67	47·43	46·17	48·10	47·23
Bones	3·78	3·73	2·93	2·44	3·24
Bacon	49·22	48·84	46·59	43·94	47·03
Liver	33·33	33·51	33·09	33·30	33·32
Offals (other than liver)	19·19	20·85	22·15	18·45	19·92
Poultry	50·56	48·87	40·73	46·46	46·63
Rabbit, game and other meat	24·10	25·77	22·60	21·74	23·12
Cooked and canned ham	91·15	93·62	86·23	80·80	87·95
Other cooked meat	58·12	64·44	67·90	69·36	64·84
Other canned meat	38·40	37·91	38·63	38·26	38·27
Sausages, uncooked	28·93	29·68	29·32	29·28	29·30
Other meat products	27·31	27·68	28·58	28·26	27·86
FISH					
White, fresh, cheap	23·22	23·39	23·50	23·39	23·36
White, fresh, expensive	31·45	30·54	30·58	31·87	31·11
Fat, fresh	14·91	16·19	15·27	12·61	14·49
White, processed	23·33	22·40	22·75	23·07	22·92
Fat, processed	16·31	14·89	15·02	15·39	15·46
Shell	55·97	41·86	64·40	52·95	52·59
Cooked	32·86	36·43	35·49	36·42	35·28
Canned and bottled	46·38	49·10	42·36	44·65	46·51
Manufactured	44·51	40·43	47·71	41·22	42·91
EGGS					
Shell, hens'	4·75	4·86	5·69	5·40	5·14
Shell, other	5·97	3·76	4·65	4·91	4·50

TABLE 3—continued

	Average prices paid (a)				
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Yearly average
FATS					
Butter	36.00	35.95	37.05	40.03	37.36
Margarine	15.99	15.99	16.53	18.00	16.67
Lard and compound cooking fat	18.27	18.36	18.88	20.08	18.92
Suet and dripping	25.05	23.21	19.54	20.48	22.12
Other fats, oils and creams ...	32.91	30.37	34.94	28.86	31.41
SUGAR AND PRESERVES					
Sugar	7.09	7.10	7.19	7.74	7.31
Honey and preserves	17.89	17.86	17.91	18.00	17.91
Syrup and treacle	10.36	10.28	10.32	10.60	10.37
VEGETABLES					
Old potatoes	2.18	2.30	1.99	2.05	2.15
New potatoes	8.70	7.70	2.47	8.35	4.20
Chips	12.68	12.22	12.36	12.23	12.37
Crisps	46.98	41.51	46.90	47.21	45.15
Carrots... ..	4.63	5.85	5.17	3.73	4.65
Other root vegetables... ..	4.13	5.29	5.96	3.99	4.49
Cabbages	6.12	6.61	4.09	3.78	5.45
Brussels sprouts	9.27	15.57	8.30	5.47	7.12
Cauliflower	9.85	9.56	6.30	5.87	7.90
Leafy salads	34.00	20.63	13.41	20.19	19.87
Fresh legumes... ..	22.37	7.40	6.10	9.45	6.41
Quick frozen legumes	29.92	35.42	40.00	32.11	32.13
Other fresh green vegetables... ..	11.33	8.08	7.34	7.02	8.72
Onions, shallots, etc.	7.43	8.28	6.11	5.58	6.86
Miscellaneous fresh vegetables	28.73	21.75	11.60	13.69	16.76
Dried pulses	17.15	16.44	16.70	16.31	16.66
Canned pulses... ..	14.66	14.19	14.29	13.85	14.25
Canned vegetables (other than pulses)	16.19	15.39	16.03	17.13	15.97
Vegetable products	18.99	20.31	19.50	18.91	19.42
FRUIT					
✓ Tomatoes (fresh and quick frozen)	17.73	24.70	16.89	14.33	18.91
Tomatoes (canned and bottled)	17.44	17.30	17.75	17.56	17.47
✓ Oranges	8.37	9.38	10.89	10.23	9.38
✓ Other citrus fruit	11.06	11.08	14.66	14.46	12.39
✓ Apples and pears	9.78	12.99	10.60	8.80	10.33
✓ Stone fruit	21.08	17.63	11.40	11.82	12.38
✓ Soft fruit	28.62	21.58	18.14	24.35	20.48
✓ Quick frozen soft fruit	35.70	30.32	17.55	33.29	27.25
• Bananas	15.23	16.80	17.03	16.62	16.46
✓ Other fresh fruit	11.37	5.33	8.35	16.81	7.83
Canned and bottled fruit	20.55	20.49	22.36	20.84	21.00
M.O.F. orange juice	13.34	13.53	13.27	13.45	13.39
Other fruit juices	30.14	23.80	32.37	35.37	29.79
Dried vine fruit	15.12	15.25	14.80	14.40	14.79
Other dried fruit	20.47	15.90	15.46	22.40	19.62
Nuts and fruit and nut products	25.25	31.36	30.83	32.96	30.76

TABLE 3—continued

	Average prices paid (a)				
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Yearly average
CEREALS					
National flour	6·07	6·84	7·03	6·94	6·71
White flour	8·23	—	7·86	7·66	7·64
National bread	4·57	4·59	4·59	4·59	4·58
White bread	5·21	—	6·91	6·97	6·94
Rolls and French bread, etc.	10·76	12·01	11·48	11·52	11·45
Other bread	6·25	6·91	6·59	6·71	6·62
Sandwiches and bread and butter	32·47	39·86	52·20	41·32	40·89
Fruit bread	12·48	12·21	13·64	12·65	12·70
Buns, scones and teacakes ...	15·54	16·89	17·22	16·21	16·42
Biscuits... ..	26·06	26·34	26·48	26·81	26·43
Cakes and pastries	31·15	31·63	32·27	31·50	31·61
Puddings	23·68	25·35	24·84	25·74	24·98
Oatmeal and oat products ...	11·27	11·18	11·62	11·07	11·24
Breakfast cereals	22·05	22·41	22·41	22·26	22·30
Rice and barley	14·20	14·98	15·05	14·93	14·77
Cereals, flour base	16·93	17·09	17·54	16·85	17·07
Other cereals	23·45	24·80	24·43	24·57	24·32
BEVERAGES					
Tea	54·66	56·31	58·11	58·77	56·99
Coffee, bean and ground ...	71·25	71·71	72·36	74·30	72·35
Coffee, extracts and essences	82·90	79·54	78·64	84·01	81·44
Cocoa and drinking chocolate	38·56	39·60	37·37	39·94	38·99
Branded food drinks	60·84	60·07	61·01	60·50	60·61
MISCELLANEOUS					
Invalid and baby foods ...	31·95	33·45	34·12	36·31	33·46
Spreads and dressings ...	43·34	40·38	40·65	41·74	40·86
Soups and extracts	24·12	26·77	25·66	24·32	24·97

(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 C

CONTRIBUTION OF DIFFERENT FOODS TO THE NUTRIENT CONTENT OF THE DIET

In the Annual Reports for 1950 and 1952, the principal sources of energy and nutrients in the diets of households of different social class and different composition were shown, as well as those for all households. Similar tables have not been prepared for 1953 because it is unlikely that the trends within either the social or family composition groupings will have altered appreciably. The 1953 data for all households are included in Table 1. Compared with the previous year there was a fall in the consumption of fish, potatoes and bread, and a rise in rationed meat, bacon, eggs, butter and cheese. The effects of these changes on the diets of different types of household have already been discussed in the main Report. Although white bread became available after August 1953 the effect on the nutrient content of the diet caused by this change was slight because of the restoration of vitamin B₁, nicotinic acid and iron to the level of that in 80 per cent. extraction flour.

The contributions of the different groups of foods to the total nutritive value of these household diets were broadly similar to those of previous years. Bread and flour are shown together in Table 1, so that the slight rises in the contributions from flour are not seen because of the decreases in those from bread. The proportions from bread and flour together decreased slightly compared with 1952, but still provided just over 30 per cent. of the total protein and vitamin B₁ and between 25 and 30 per cent. of the total energy value, calcium, iron and nicotinic acid in the diet. Again, as in 1952, the three highest contributions from any one type of food were those from all milk to the calcium (47 per cent.) and riboflavin (37 per cent.) content of the diet, and from margarine to the total vitamin A (40 per cent.). With the fall in the consumption of potatoes, fruits became the largest single source of vitamin C, but the amount from potatoes and other vegetables together was again more than 50 per cent. of the total.

More than half the protein, calcium, vitamin B₁ and riboflavin in the average household diet was derived from liquid and other milk, cheese and cereals. The contribution of these foods to the calcium in the diet was almost identical with that found in 1952; the slight fall in the calcium from cereals was counterbalanced by the increase from cheese.

The rise in meat consumption more than counterbalanced the lower consumption of fish, so that the percentage of the total protein derived from animal sources was greater than in 1952. As a result of this rise, meat became the chief source of nicotinic acid, as it was in 1950.

In several respects, the contribution of the different foods to the total nutritional value of the diet in 1953 resembled similar data for 1950 more closely than those for 1952. The most marked change was the increased contribution of fruit and green vegetables to the vitamin C total in 1953 compared with 1950.

TABLE 1
Energy Value and Nutrient Content of Domestic Food Consumption (a)—All Households, 1953

	Energy value		Protein		Calcium		Iron		Vitamin A		Vitamin B ₁ (c)		Riboflavin		Nicotinic acid		Vitamin C(d)		Vitamin D	
	Cal.	Per cent. of Total	g.	Per cent. of Total	mg.	Per cent. of Total	mg.	Per cent. of Total	i.u.	Per cent. of Total	mg.	Per cent. of Total	mg.	Per cent. of Total	mg.	Per cent. of Total	mg.	Per cent. of Total	i.u.	Per cent. of Total
Milk and cream ...	265	10.5	13.8	17.6	492	47.2	0.4	3.0	467	12.2	0.16	0.62	0.4	3.0	4	7.6	15	10.8		
Cheese ...	41	1.6	2.5	3.2	81	7.8	0.1	0.7	130	3.4	...	0.05	0.1	0.8	—	—	1	0.7		
Total ...	306	12.1	16.3	20.8	573	55.0	0.5	3.7	597	15.6	0.16	0.67	0.5	3.8	4	7.6	16	11.5		
Meat, carcass ...	159	6.3	9.2	11.7	7	0.7	1.7	12.8	27	0.7	0.09	0.12	2.5	18.8	—	—	—	—		
Bacon ...	82	3.3	2.0	2.6	2	0.2	0.2	1.5	—	—	0.09	0.02	0.4	3.0	—	—	—	—		
Other meat ...	104	4.1	5.1	6.5	16	1.5	1.3	9.8	760	19.8	0.07	0.14	1.6	12.0	1	1.0	3	2.1		
Total meat ...	345	13.7	16.3	20.8	25	2.4	3.2	24.1	787	20.5	0.25	0.28	4.5	33.8	1	1.0	3	2.1		
Fish ...	23	0.9	3.0	3.8	12	1.2	0.3	2.3	10	0.2	0.01	0.03	0.4	3.0	—	—	29	20.9		
Eggs ...	44	1.8	3.5	4.5	17	1.6	0.8	6.0	283	7.4	0.04	0.12	...	0.2	—	—	19	13.7		
Margarine ...	134	5.3	—	—	1	0.1	...	0.4	307	8.0	—	—	—	—	—	—	55	39.6		
Butter ...	107	4.2	0.1	0.1	2	0.2	...	0.2	575	15.0	—	—	—	—	—	—	9	6.4		
Other fats ...	93	3.7	0.1	0.1	...	...	...	0.1	9	0.2	—	—	—	—	—	—	—	—		
Total fats ...	334	13.2	0.2	0.2	3	0.3	0.1	0.7	891	23.2	...	...	...	0.2	—	—	64	46.0		
Sugar and preserves ...	262	10.4	0.7	0.9	5	0.5	0.3	2.3	2	0.1	...	...	...	0.1	1	1.9	—	—		
Potatoes, including chips and crisps ...	163	6.5	4.0	5.1	19	1.8	1.5	11.3	—	—	0.21	0.14	2.2	16.5	18	33.9	—	—		
Green vegetables ...	13	0.5	1.2	1.5	22	2.1	0.5	3.8	163	4.2	0.05	0.04	0.2	1.5	8	15.1	—	—		
Root vegetables ...	5	0.2	0.2	0.3	9	0.9	0.1	0.7	715	18.6	0.01	0.01	0.6	0.8	1	2.6	—	—		
Other vegetables ...	24	1.0	1.7	2.2	15	1.4	0.5	3.8	38	1.0	0.02	0.02	0.2	1.5	1	2.1	—	—		
Total vegetables ...	205	8.2	7.1	9.1	65	6.2	2.6	19.6	916	23.8	0.29	0.21	2.7	20.3	28	53.7	—	—		
Fresh fruit, including tomatoes ...	25	1.0	0.6	0.8	14	1.3	0.3	2.3	218	5.7	0.04	0.02	0.3	2.2	17	32.1	—	—		
Other fruit ...	23	0.9	0.2	0.2	6	0.6	0.2	1.5	37	1.0	...	0.01	0.1	0.8	2	3.7	—	—		
Total fruit ...	48	1.9	0.8	1.0	20	1.9	0.5	3.8	255	6.7	0.04	0.03	0.4	3.0	19	35.8	—	—		
Bread and flour ...	707	28.1	24.5	31.2	278	26.7	3.4	25.6	—	—	0.43	0.14	3.8	28.6	—	—	8	5.8		
Other cereals ...	232	9.2	5.5	7.0	39	3.8	1.4	10.5	83	2.2	0.08	0.06	0.6	4.5	—	—	—	—		
Total cereals ...	939	37.3	30.0	38.2	317	30.5	4.8	36.1	83	2.2	0.51	0.20	4.4	33.1	—	—	8	5.8		
Beverages ...	8	0.3	0.3	0.4	3	0.3	0.1	0.7	3	0.1	...	0.11	...	0.3	—	—	—	—		
Other foods(b) ...	6	0.2	0.2	0.3	1	0.1	0.1	0.7	9	0.2	...	0.01	0.3	2.2	—	—	—	—		
Total All Foods ...	2,520	100.0	78.4	100.0	1,041	100.0	13.3	100.0	3,836	100.0	1.31	1.66	13.3	100.0	53	100.0	139	100.0		

(a) Welfare fish liver oil and Vitamin A and D tablets excluded
 (b) Invalid and baby foods, spreads and dressings, soups and extracts
 (c) To allow for losses in cooking, 15 per cent. has been deducted from all intake figures
 (d) Values are based on the following assumptions: (1) All vitamins are assumed to be available for absorption; (2) All vitamins are assumed to be available for absorption; (3) All vitamins are assumed to be available for absorption.

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