

He accepted the creed of Ben Ezra, who so boldly declares that old age is better than youth simply because of its being the time of knowledge and understanding.

He has marked Browning's verse :

"Thoughts hardly to be packed
Into a narrow act,
Fancies that broke through language and escaped
All I could never be
All men ignored in me
This I was worth to God, whose wheel the pitcher
shaped."

He hoped much from heredity and believed the best qualities of a man may appear in his grandchildren or great grandchildren ; they furnish the proof of the worth of the ancestor, using the words of Lafcadio Hearn. The tragic death of his grand-

son, Kenneth Frankland Armstrong, in whose career H. E. A. took so much pride, was perhaps the greatest blow of his life.

I have sought to trace the life-history of a versatile, individualistic man ; one who kept himself fit in body and also in mind ; one who gave unstintingly of his best to many causes without thought of fame or honour for himself ; it was indeed his nature to decline all such. If the task has been achieved we have seen what is so well expressed in the words of Walt Whitman :

"Journeyers gaily with their own youth,
Journeyers with their bearded and well-grained
manhood,
Journeyers with their own sublime old age :
Old age, calm expanded, broad with the haughty
breadth of the universe."

'WORKING-CLASS' EARNINGS AND EXPENDITURE

BY D. CARADOG JONES,

SCHOOL OF SOCIAL SCIENCES AND ADMINISTRATION, UNIVERSITY OF LIVERPOOL

DEFINITION OF 'COST OF LIVING'

THE nominal wages of a working man are in the main governed by the demand for and the supply of such skill as he possesses. His real wages—what he can buy with his money—depend upon the movement of prices. During a war, the mounting cost of living invariably directs public attention to the need for regulating wages so that real and nominal shall keep step. The 'Cost of Living' Index was designed for this purpose in 1914 and has been widely used ever since.

'Living' clearly has a very different meaning in different social circles, so that changes in the cost of living of different classes cannot be accurately measured with the same instrument. Agreement must accordingly be reached upon a standard, a definition of living, if we are to measure its changing cost. The purpose of the Ministry of Labour Index is to measure the average increase in the cost of maintaining unchanged a standard of living of the working-classes as defined in 1914. Strictly, therefore, this index is a measure of price changes—the mean change in price of an aggregate of certain specified commodities the enjoyment of which constitutes 'living'. The choice of these commodities was based on an analysis of 1944 urban working-class family budgets collected by the Board of Trade in 1904, but between 1904 and

1914 the Sumner Cost of Living Committee (1918) reported that "no considerable changes took place in the mode or standard of living". These budgets indicated that, in spite of a wide divergence in expenditure between families, certain needs are common to them all. These basic needs alone, things which from time to time practically every family buys, are used to define living. The number included in the 1914 calculations was severely limited ; the list of foods, for example, contained only fourteen commodities : no fruit and no vegetables, except potatoes, were included. In such respects the standard of living of the working-classes has risen considerably since the War of 1914–18 ; to this improvement the cultivation of allotments, advance in the science of preserving and storing food, quicker transport from abroad have all contributed. Consequently, an analysis of household budgets to-day reveals a marked extension of the field of basic expenditure.

NEW COLLECTION OF HOUSEHOLD BUDGETS

The first results of the recent and most elaborate budget inquiry ever undertaken in Great Britain by a Government department were published in the *Ministry of Labour Gazette*, December 1940. The households invited to keep budgets—and encouraged to do so by a small payment for each

approved budget—were determined by a purely random choice of names from the registers of adult workers insured against unemployment, all districts throughout the United Kingdom being adequately represented. Certain important classes of non-insured workers were also included, but applicants for unemployment assistance (that is, long-standing cases of unemployment) were excluded. With this reservation the households represented may be described as those of manual workers, and non-manual earners of salaries up to £5 a week engaged in industrial, commercial or clerical occupations. Agricultural workers do not concern us in this article. In Great Britain alone, 31,000 households were visited; about 9,000 proved to be outside the scope of the inquiry or were ruled out for some other good reason; of the remainder, nearly 60 per cent co-operated. So high a return in this type of investigation exceeded expectations. It reflects great credit on the Statistical Division of the Ministry of Labour directing it, on the employment exchanges and advisory committees throughout the country, and on the thousands of voluntary workers who formed the direct link with the families visited. The majority of these families kept a satisfactory record of expenditure for four specified weeks, in October 1937, and in January, April, and July, 1938. We may confine our attention to these 8905 households, since the addition of budgets kept for a shorter period makes no significant difference in the figures.

MEAN SIZE OF HOUSEHOLD AND ACCOMMODATION

The information so far available from these new budgets is best summarized in the form of averages. Thus, the average budget family was composed of $3\frac{3}{4}$ persons, including $2\frac{1}{2}$ adults over eighteen years of age and one child under fourteen. Two persons per family were dependants and the earners worked on the average five days a week. Two per cent of the families—mostly miners—lived rent free in dwellings provided by their employers; nearly 18 per cent either owned or were buying their houses; the remaining 80 per cent paid rent and the mean number of rooms occupied was 3.9. The average weekly rent (including rates and cost of purchase when relevant) was 10s. 10d.

EXPENDITURE

The average weekly expenditure per family on food was 34s. 1d. Of this, 10s. was allocated to meat (including bacon, fish, etc.), 9s. to dairy produce, 5s. to bread, flour and cakes. The mean consumption of meat and bacon per family was nearly 6 lb. each week, of butter and margarine $2\frac{1}{2}$ lb., of sugar $4\frac{3}{4}$ lb., of eggs two a day. The

average consumption of bread and of potatoes by each person was just over $\frac{1}{2}$ lb. a day, while that of milk was appreciably less than $\frac{1}{2}$ pint a day. The change in distribution of expenditure as compared with 1914 and the trend towards middle-class expenditure, as revealed in the accompanying table, is of particular interest.

PROPORTIONAL DISTRIBUTION OF EXPENDITURE ON FOOD.

Expenditure on	Working-class budgets		A middle-class sample 1926* %
	1914* %	1937-1938 %	
Meat, fish, etc.	32.0	31.2	37.5
Bread, flour, cakes	19.3	15.7	12.2
Dairy produce	22.3	27.9	25.9
Vegetables, fruit	9.7	13.3	13.2
Sugar, jam	7.5	5.1	5.1
Tea, coffee, cocoa	6.6	5.8	4.6
Oatmeal, rice, etc.	2.5	1.0	1.5

* Derived from an article by D. Caradog Jones (*J. Roy. Statistical Soc.*, 91, Pt. 4, Table xiii).

The weekly consumption of coal amounted on the average to $1\frac{3}{4}$ cwt. for each family, the expenditure on fuel and light together being 6s. 5d. a week. Out of the 8905 households who kept satisfactory budgets of their total expenditure for four weeks, 2100 were persuaded to keep a detailed record of what they spent on clothing and footwear for twelve months. On this additional and more reliable evidence the total average expenditure on clothing is estimated at 8s. 1d. a week per family.

DISTRIBUTION OF TOTAL EXPENDITURE.

Expenditure on	Working class			A middle-class sample 1926*
	1937-38	1914*	1937-38	
(1)	(2)	(3)	(4)	(5)
Food	s. d.	%	%	%
	34 1	60	40	32
Rent and rates	10 10	16	13	14½
Clothing	8 1	12	9½	11
Fuel and light	6 5	8	7½	4½
Miscellaneous	25 7	4	30	38
Total	85 0	100	100	100

* *J. Roy. Statistical Soc.*, 91, Pt. 4, Table xii.

Acting on the principle of including in the calculation of the Cost of Living Index only basic needs, the Ministry of Labour has hitherto given very small weight to expenditure on items other than the four main groups already considered. Their miscellaneous group included only such cleaning materials as soap and soda; domestic ironmongery, brushware and pottery; tobacco and cigarettes; fares; and newspapers. These items between them account in the new budgets for an expenditure of 7s. 4d. a week on the average. But in addition, these budgets include compulsory national insurance, costing 2s. 1d. per family, while voluntary insurance premiums and trade union subscriptions together amount to 3s. 9d.,

whereas the total average expenditure on all items in the miscellaneous group is 25s. 7d. The difference is made up of house furnishings (2s. 7d.), entertainment (1s. 4½d.), hospital, medical and dental charges (1s. 8d.) and other expenses.

The ultimate result of this analysis of present-day expenditure is summarized in columns 2 and 4 of the accompanying table, and again comparison is made with working-class expenditure in 1914 and middle-class expenditure in 1926, bringing out as before the closer approach of the working-class towards the middle-class type of distribution.

EFFECT OF NEW WEIGHTING ON COST OF LIVING INDEX

What difference would the use of the new weights shown in column 4 above make in the Cost of Living Index? To answer this question we must understand precisely what it means. Suppose we wish to compare costs at two given dates, July 1914 and the period 1937-38 to which the new budgets relate. The index at present in use measures the increase in the cost of maintaining unchanged the 1914 standard of living as already defined. There is only one correct way of doing this, and the answer is given month by month in the *Ministry of Labour Gazette*. If we calculate the mean of the official price indexes at the four dates nearest to the budget weeks, we find that food had risen 42 per cent, rent and rates 59½, clothing 110, fuel and light 80½, and the miscellaneous group 75 per cent between July 1914 and 1937-38. Each of these percentages, *by definition*, must be weighted according to its importance as judged by the average proportional expenditure upon the corresponding group in July 1914. In other words, the appropriate weights are those given in column 3 of the accompanying table. This leads to the conclusion that the cost in 1937-38 of 'living' as defined in 1914, was 57 per cent above the 1914 level.

But suppose we change our standard and proceed to compare with this figure the 1914 cost of buying the commodities which constituted 'living' as defined by the average of the 1937-38 budgets. We start now with the distribution of expenditure shown in columns 2 and 4 of the table. To find the cost of this average budget in July 1914 we must allow for the mean change in price of each of the five groups between 1914 and 1937-38 given above. This done, we find that the budget which cost 85s. in 1937-38 would have cost only 52s. 9d. in 1914. In other words, the average budget of 1937-38 cost 61 per cent more at that period than it would have cost in July 1914. If, therefore, we wish to define 'living' according to the present-day standard in place of that of 1914,

the result will be a rise in the 'cost of living' from 100 to 161 instead of 100 to 157. It may be presumed that this difference is much less than the critics of the old Cost of Living Index anticipated. It illustrates the validity of the statistical principle that the weighting of price movements—normally based on a selected standard of living—is of less importance than the price movements themselves, which are independent of the particular standard selected and determined afresh each month.

RELATION OF EARNINGS TO EXPENDITURE

One further question of interest remains. How is the average standard of living, represented by these budgets, related to the present-day level of earnings? To answer this question use can be made of data given in the November and December issues of the *Ministry of Labour Gazette* 1940, concerning average earnings in the principal industries at July 1940. Agriculture and mining are two notable omissions from the industries listed, but it is reasonable to omit them as we are only concerned with urban budgets. It will be appropriate also to confine our attention to men's earnings in dealing with household expenditure; and in order to obtain a composite average it will suffice to weight the earnings in different industries by the number of occupied males, aged 14+, in each as given by the 1931 Census for England and Wales. The resulting average of weekly earnings is 87s. It should be added that under war conditions two industrial groups, by reason of the numbers employed, have a predominating influence in producing this result, namely, the metal, engineering, and shipbuilding group and the transport and storage group. Another point to be noted is that average wage rates would, of course, be at a distinctly lower level. We have also information, in the same two issues of the *Labour Gazette*, as to the percentage increase in men's average earnings for each of the same industries since October 1938, a date more closely approximating to the budgets period. By weighting these as before it may be estimated in round numbers that average earnings in October 1938, for these combined industrial groups, were in the neighbourhood of 70s. a week. Bearing in mind that on the average there were 1.75 earners per household, this would give an ample margin to meet a weekly family expenditure of 85s., even allowing for the probability that all earnings do not go towards housekeeping.

Averages, useful as they are, do not bring out the light and shadow in the picture. If we could be also told what the budgets reveal as to range of spending, we should have fairly accurate and unique information as to the relative poverty and wealth of a large section of the population.