groups of families these are compensating errors, particularly for items consumed by most families."

The interpretation of the data, however, turns so much on this assumption that the errors are compensating ones that it would seem well worth while to organize a survey specially to test the truth of it. A memory test for impersonal facts might be expected to produce compensating errors; but food consumption is so closely linked with community culture and with individual likes and dislikes that the memory picture of food consumed must surely be subject to such influences and therefore liable to uncompensated errors. At present the justifiability of the assumption remains a matter of opinion.

The other major factor limiting the usefulness of this survey is the fact that it covers one season of the year only. The influence of this factor is, however, given due consideration in the discussion relating to each group of foodstuffs in turn.

On the sociological side the returns are grouped according to (1) urban, (2) rural non-farm, and (3) rural farm families, and then further subdivided according to income class. Differences were found, and these differences (in the records) are real, whatever the causes of them may be. As usual, improvement in dietary went up with improvement in income-level inside each main group and, as might have been expected, the biggest differences in the 'consumption patterns' were between the farm families and the urban ones. The rural non-farm families occupied an intermediate position. The authors point out that:

"Farm families had a better opportunity than non-farm families to maintain and improve upon their usual levels of food consumption in the face of rising food costs, food shortages, and reduction in the variety of foods offered for sale because such a large share of their total food supply was obtained from the farm."

It was found that 90 per cent of the milk, 95 per cent of the eggs, 60 per cent of the meat, poultry, fish, fats and oils, 25 per cent of the sugars and sweets, and 20 per cent of the grain products consumed by farm families were produced by themselves.

In terms of nutrients, the farm families' dietaries were superior to the urban ones in calcium, protein, riboflavin and iron, equal in thiamin and vitamin A, and inferior in niacin and ascorbic acid.

The intermediate position of the rural non-farm families is considered to reflect "the ability of many of these families to produce part of their food supply at home and to buy some farm products at lower prices than families in cities", in addition to the fact that they tended to be also of intermediate standing with regard to income.

To other survey workers possibly the most interesting part of the report will be Appendix B, dealing with the methodology. Family consumption records are always complicated by meals taken out and by odd meals given to visitors. The authors point out that "the size of family from the point of view of food consumption is not merely a count of persons, but a count of meals consumed by the persons in the family". For this reason they took the total number of meals served during the week, divided by 21, and called the resulting figure "size of family". 21 was used for the divisor because it was the usual number of meals served to each person each week. Meals taken away from home were not counted. This method of breakdown ignores age, sex and activity, and results obtained by it can only be used for comparative purposes if the communities surveyed are of similar

composition. In this case the non-farm groups contained fewer children and men, and the physical activity of the adults was less than in the farm groups.

Requirements were assessed in detail in terms of "equivalent nutrition units". This is a modern variation of the old man-value computation. The use of man-value scales fell into disrepute because they were based on calorie needs only, and disregarded the fact that the requirements for other nutrients do not run parallel. Relative units can, however, be quickly calculated for any set of recommended allowances. In this study "the scales of relatives have been derived from the daily allowances for calories and the specific nutrients recommended by the Food and Nutrition Board of the National Research Council, May 1941. The dietary needs of the moderately active man were considered equal to one nutrition unit; the needs of the other sex-age-activity groups are expressed in relation to those of the moderately active man". Thus a girl of 13-15 years of age counts as 0.93 of a man unit for calories, 1.62 for calcium, 0.74 for riboflavin, and so on.

An alternative method of assessment is that which finds the requirements of the community by adding together the requirements of each sub-group and then divides the resultant totals by the total number of persons. This gives weighted requirements *per capita* and was the method used in the report, "Food Consumption Levels in the United States, Canada, and the United Kingdom".

In the present report, the data have been arranged and re-arranged in many different ways (there are forty-five very detailed tables), and in fairness it must be said that the authors do seem to have directed attention to all possible sources of error and to the limitations imposed by the methods they adopted. This is an attitude of mind that should be encouraged.

M. W. GRANT.

OBITUARIES

Mr. E. Lancaster-Jones

THE death occurred on September 9 after a short illness of Ernest Lancaster-Jones, keeper of the Science Library. He was born at Radcliffe on November 8, 1891, and was educated at Bury Grammar School. Later, with a mathematical scholarship, he proceeded to Christ's College, Cambridge, and graduated in 1914.

In 1915 he was commissioned in the East Lancashire Regiment, transferring in the following year to the Royal Engineers, with which corps he served for three years in Greece, Macedonia and Egypt. In 1916 he married Geraldine Hilda Anne Farnham, of Burnham-on-Sea, who died in 1942.

In 1920 Lancaster-Jones was appointed assistant at the Science Museum, where he performed valuable work assembling and developing the collections of acoustical and electrical instruments, on geodesy and surveying, and was responsible for the Museum handbook on the geodesy and surveying collections, which appeared in 1925. The introduction from Budapest to Britain in 1920 of the first Eötvös torsion balance provided a unique opportunity for studying the gravitational method of applied geophysics, and Lancaster-Jones devoted himself wholeheartedly to the development of this subject. Frequently, investigations could only be made during the

night, and often under very difficult and trying weather conditions, but his determination and outstanding ability enabled him to devise new methods and instruments, and he soon acquired an international reputation.

Lancaster-Jones was transferred to the Science Library, where he was appointed keeper in 1938. He was largely responsible for the rapid development of the Library, enabling it to contribute so effectively towards the scientific war effort of the country. He possessed a wide knowledge of scientific literature, coupled with a natural organizing ability and an unusual capacity for work. During recent years he found additional interest in the activities of the Association of Special Libraries and Information Bureaux, and played a major part in the introduction of microfilm methods into Great Britain.

'L. J.', as he was affectionately called, was greatly respected by all who knew him. A man free of all conceit and pretences, he was completely sincere and unassuming. He was a deep thinker and a shrewd judge of human character, and successfully combined firmness and discipline with ease and friendliness. His love of various kinds of sport was only equalled by his fondness for children. Early last year he married Eleanor Joyce Chapman of London, and with her and his son and daughter

we mourn the loss of a sincere and valued friend who had so endeared himself to us.

H. SHAW.

We regret to announce the following deaths:

Prof. W. B. Cannon, C.B., For.Mem.R.S., emeritus professor of physiology in Harvard Medical School, on October 2, aged seventy-three.

Prof. Roscoe G. Dickinson, professor of chemistry at the California Institute of Technology, known for his work on the X-ray analysis of crystals, photochemistry and reaction kinetics, on July 13, aged fifty-one.

Sir David Milne-Watson, Bart., recently governor of the Gas Light and Coke Company, on October 3, aged seventy-six.

Dr. J. C. Mottram, director of the Research Laboratory, Mount Vernon Hospital, Northwood, Middlesex, on October 4, aged sixty-five.

Mr. H. M. Pendlebury, of the Museums Department, Kuala Lumpur, on September 22, from the effects of three and a half years captivity in Japanese hands.

Prof. J. Strong, C.B.E., emeritus professor of education in the University of Leeds, on October 7, aged seventy-seven.

NEWS and VIEWS

Prof. G. B. Jeffery, F.R.S.

DR. GEORGE BARKER JEFFERY, the new director of the Institute of Education, University of London, was associated with University College, London, from 1909 onwards, as an undergraduate, a lecturer in the Department of Applied Mathematics, and for twenty-one years as Astor professor and head of the Department of Pure Mathematics. He broke the continuity of this long service with a year at the London Day Training College (now the Institute of Education) and two years as professor of mathematics at King's College, London. His many valuable contributions to mathematical journals deal mainly with the applications of pure mathematics to physical problems, in particular Einstein's relativity theory. As Astor professor he set himself to develop a school of pure mathematics in London and took a leading part in the activities of the London Mathematical Society. He has figured prominently in the affairs of University College. As pro-convict of the section of the College in evacuation at Bangor, his diplomacy at the outset paved the way for a happy co-operation. Taking a keen interest in student life, he laboured to preserve the traditions of the College and to weld the students into a corporate whole. On returning to London in 1944, he took the lead in instituting student hostels. A member of the Senate of the University of London, he has taken a wide interest in educational problems, in the schools as chairman of the Matriculation and Schools Examinations Council, in the University as a member of the Academic and External Councils and as dean of the Faculty of Science. He has always urged the claims of women to equal educational opportunities, especially in the London medical schools. His flair for clear thinking has steered many difficult matters through University channels.

Astor Chair of Mathematics, University of London: Prof. H. Davenport, F.R.S.

PROF. HAROLD DAVENPORT has been appointed to the Astor chair of mathematics in the University of London in succession to Prof. G. B. Jeffery and is beginning his duties at University College this session. He comes from Acerington Grammar School, the University of Manchester and Trinity College, Cambridge, of which he was formerly a fellow. He is a fellow of the Royal Society and was recently professor of mathematics in the University College of North Wales, Bangor. He has established his position as one of the most distinguished of the younger English mathematicians. His researches have been specially in the field of the analytic theory of numbers in the tradition of Hardy and Littlewood, whose pupil he was. His appointment represents a notable addition to the strength of the mathematical professoriate in the University of London, and is peculiarly happy in view of the close association of University College, London, with the University College of North Wales during the first five years of the War.

Dr. C. Ainsworth Mitchell and *The Analyst*

DR. C. AINSWORTH MITCHELL, who has been editor of *The Analyst* since 1920, has just retired from this position but retains his connexion with the Society of Public Analysts and Other Analytical Chemists in the capacity of honorary librarian. During the twenty-five years of his editorship, the scope and reputation of *The Analyst* have steadily increased, and it is largely through his exertions that it has attained its present high place among scientific journals and has become recognized as the most comprehensive record of current analytical work in chem-