

Parliament and must come later. As the Prime Minister had already explained, there would be two administrative units, with two Ministers of State and two permanent under-secretaries. Most of the new Department would be housed in a building now under construction, but meanwhile the unit dealing with schools would be located in Curzon Street, and that dealing with universities and science in Whitehall. The University Grants Committee would have direct access to the new Secretary of State and to both Ministers of State, and its organization would be strengthened, while its traditional position was maintained. There would be common establishment, legal and information services for both units of the new Department and a common list of staff. Mr. Hogg said that he thought that public discussion on the Robbins Report and on the Trend Report indicated general support for the idea of bringing school education and higher education under a single Minister and also a large measure of support for overriding any separation between higher education and research, particularly the work of the universities and the research councils. He claimed that the proposed structure represented a reasonable administrative arrangement and preserved a high degree of academic and administrative freedom to the constituent bodies. He said that it would be necessary to reconsider the reorganization of individual Government establishments in dealing with the recommendations of the Trend Report. In replying on the debate, Sir Edward Boyle dealt with some trivialities about Scottish education and also explained that no definite statement was yet possible about the colleges of education and training colleges. A similar motion, introduced by Viscount Blakenham, was approved by the House of Lords on March 12.

#### Expenditure on Technical Co-operation

In a written answer on March 10, the Secretary for Technical Co-operation, Mr. R. Carr, stated that 132 research staff were paid direct from the Votes of his Department, of whom 107 were employed in the United Kingdom, 10 in Nigeria and 6 in India. £1.8 million was also contributed annually to bodies engaged in research for the developing countries of the Commonwealth, in Britain and abroad.

#### Scientific Provisions for Medical Research

In a written answer in the House of Commons on March 9, the Minister of Health, Mr. A. Barber, stated that specific provision for research, apart from clinical research in course of treatment in hospitals in 1963-64, in the Health Estimates for 1963-64 was £295,000 compared with £210,000 in 1962-63. Of this, £32,600 was to the Common Cold Research Unit, £222,000 for hospital clinical research, and £15,000 for operational research by outside bodies. A considerable increase in research provision was proposed for 1964-65.

#### Further Education in Britain

In written answers in the House of Commons on March 3, Sir Edward Boyle gave expenditure of local education authorities on further education as £80.7 million in 1962-63 and on youth service as £4.7 million. For 1963-64 and 1964-65 the corresponding expenditure is estimated as £93.8 million and £5.7 million, and £101.9 million and £6.3 million, respectively. The National Advisory Council on Education for Industry and Commerce had set up a new advisory committee on further education for agriculture, with Sir Harry Pilkington as chairman, to advise on questions which may be referred to it relating to the provision of further education for agriculture at institutions other than universities. The committee had been asked as its first task to report on the present provision of, and future requirements for, full-time further education in such institutions, with special reference to courses above the level of one-year certificate courses.

#### Honours Graduates in Mathematics

In reply to questions in the House of Commons on March 10, the Minister for Science, Mr. Q. Hogg, said that to maintain the present proportions of honours graduates in mathematics in teachers at secondary schools, for which local authorities are responsible, it would be necessary to recruit about 500 in 1964, of whom 20-25 per cent were likely to be graduates of the current year. The Government service was estimated to need 90 honours graduates and about 850 students were expected to graduate with honours in mathematics this summer. Colleges of advanced technology were expected to need 33 such graduates and the universities had estimated that they would require an increase of 50 per cent in their teaching staff in mathematics between 1962 and 1965. About 100 new Ph.D.s in mathematics were expected this summer.

#### Emigration of Scientists from Britain

In a written answer on March 10, Mr. Hogg stated that the Royal Society estimated that 184 holders of Ph.D.s and university staff permanently emigrated from Britain in 1960, 198 in 1961 and more than 144 in 1962, for which year figures were incomplete.

#### Supply of Scientific Man-power in the United States

In an article recently published in *Science* (143, 313; 1964), entitled "Approaching Ceilings in the Supply of Scientific Manpower", Dr. W. R. Brode develops further the ideas on the limiting factors in the growth of science and scientific man-power in the United States which he expressed in the March 1963 issue of *The American Scientist*. Dr. Brode argues that now that about 50 per cent of the males from the age group are admitted to college (in 1962-63, 52 per cent of the men and 36 per cent of the women) the United States must be approaching its ceiling of capability. To effect a major increase in the male group, which provides 95 per cent of scientists and engineers, would mean lowering standards to admit considerably more than 60 per cent of the age group and to graduate more than 25 per cent. The maximum effort, he suggests, should be directed towards improving the quality of graduates, improved teaching methods, better utilization of trained men and women and a rational system of priority in allocating valuable personnel. The present college 'mortality' is about 50 per cent, and he sees no prospect of reducing this except by more careful selection, nor is Dr. Brode hopeful of other than a gradual increase in the supply of women scientists and technologists. Any man-power crisis he sees not as a matter of producing more trained engineers but of improved and more efficient education. Dr. Brode analyses more particularly the supply of chemists, but he reiterates that the real problems are the maintenance of standards and the more efficient use of trained man-power. He would improve teaching methods and raise standards of entry rather than risk the production of less-competent personnel in larger numbers.

#### University Development in India, 1962-63

BASIC facts and figures for university development in India during 1962-63 are given in a report prepared by the Statistical Section of the University Grants Commission (*University Development in India, 1962-1963: Basic Facts and Figures*. Pp. vi + 70. New Delhi: University Grants Commission. Rs. 4.25; 10s.; 1.53 dollars). The report also shows that the number of universities increased from 44 in 1960-61 to 54 in 1962-63 and the number of teaching departments from 861 to 941; university colleges from 99 to 133; affiliated colleges from 1,438 to 1,805. University enrolment, excluding intermediate boards, increased from 1.03 million to 1.27 million, and the number of women students from 150,000 to 200,000. Staff now number 66,370 compared with 54,666, and residents in hostels 196,458 compared with