

OLD WORLD

# Job Prospects for Graduates Improving

THE numbers of graduates who obtained their first degree in 1971 and who were still unemployed at the end of that year increased by 2.4 per cent last year to reach the highest level for many years—7.9 per cent. The hardest hit were applied science graduates, of whom 6.7 per cent were still without work at the end of 1971, compared with 2.9 per cent a year earlier.

The figures, published this week by the University Grants Committee (*First Employment of Graduates*, HMSO, £0.75), confirm the gloomy predictions made last year by university appointments officers. The rise in the total number of unemployed graduates continues the trend started in 1965 when only 2.3 per cent of new graduates were unemployed at the year's end, but it is the largest leap in a single year. The numbers of new graduates whose destinations were unknown at the end of last year also reached a new peak of 10.1 per cent, an increase of 1.6 per cent.

But 1971 may prove to have been the trough for graduate employment. Predictions that 1972 was going to be even worse are now being withdrawn by university appointments officers who are saying that the situation may have improved slightly over 1971, although final figures will not be available until next year.

And 1973 may even be better. The Central Services Unit for the appointments boards—established in August at Manchester—reports that there are definitely more jobs for the 1973 output than there were at this time last year for the 1972 graduates. Appointments officers report that graduates, having seen the increasing difficulties encountered by those finishing last year and the year before, are willing to look much more widely for work; scientists particularly are coming to accept that their job may well not be related to their degree, something that arts graduates have lived with for years. Employers too are adapting, recruiting graduates into jobs previously filled by school leavers. And areas of commerce, such as insurance, accountancy and retail selling, are increasingly recruiting at the graduate level.

New pastures for graduate recruitment are to be welcomed, for the 1971 figures reveal that industry—the traditional first employer of the graduate—cut its intake of both first and second degree graduates from about 17.3 per cent of the total in 1970 to 13.3 per cent in 1971. Other employers increased their intake, however; the public sector

took 1,238 more graduates in 1971, and 550 more graduates went straight into educational jobs without further training, but overall the number entering permanent employment in Britain fell from 21,399 in 1970 to 20,820 in 1971.

The number of men going on to higher education and research in the pure sciences fell to 28.1 per cent of those graduating in 1971—lower even than the figure for 1969—and the number of women entering research in pure science also fell—from 15.3 per cent to 14.5 per cent. By contrast the number of both men and women entering research in the applied sciences rose by about 0.5 per cent—the reverse situation to 1970 when those moving on to pure

science research and further education rose, but applied science numbers fell.

The figures published this week seem to belie the often quoted argument that university courses ought to be more relevant to future employment. The University of Lancaster, one of the newer universities with courses that are claimed to be relevant to current needs, has the highest unemployment rate at 16 per cent, with a further 11 per cent “unknown”, and the University of Manchester Institute of Science and Technology is easily above the national average with 9.4 per cent unemployed. (In fairness it should be pointed out that the University of Strathclyde has an unemployment rate of barely 2 per cent.)

SUPERCONDUCTIVITY

## Research Recommended

RESEARCH on superconducting a.c. generators should start as soon as possible, according to a report from the Science Research Council (*Report on Superconducting a.c. Generators*, available free from the SRC). The report states that the future of superconducting a.c. generators is far from certain—and that in any case they will not be needed before the 1990s—but that research must start now if they are to be available by then. Further, Britain is leading the field in some aspects of superconductivity, including helium refrigerators, materials, magnets and d.c. machines.

The report therefore recommends an immediate, although not large, research programme in universities, and identifies topics like the properties of helium in a rotating frame of reference, eddy-current losses and the fatigue and hysteretic heating of composite materials as suitable for the attention of university departments.

Superconducting generators produc-

ing more than 1,000 MW will offer greater efficiency for smaller size, weight and cost than conventional machines. There are, however, many technical and economic risks involved in the development programme. The working party of the Electrical and Systems Engineering Committee of the SRC, which produced the report, has outlined a likely timescale for the development of a superconducting generator, involving the successive construction of 60 MW, 600 MW and 1,000 MW sets (see table). The 60 MW prototype is expected to cost about £2 million.

The working party comes out against creating a special centre for studies of superconductivity, but it does recommend that the university work be closely linked to industrial development by the CEGB and such companies as GEC and Reyrolle Parsons (IRD), through the secondment of academics to industry and through research studentships financed by the SRC. The universities' task would be to obtain “basic data and the criteria necessary for determining design parameters” for superconducting a.c. generators.

Table 1. Likely Timescale for the Development of Superconducting Generators

Year	1973	'74	'75	'76	'77	'78	'79	'80	'81	'82	'83	'84	'85	'86	'87	'88	'89	'90	'91	'92
Research Rig work and construction of 60 MW prototype	←→																			
Running of prototype				←→																
Design and construction of 600 MW machine										←→										
Design and construction of 1000 MW machine																		←→		