

in future be a direct pensioner. From the beginning of the next financial year in April, the Tidal Institute will be rechristened the Institute of Coastal Oceanography and Tides, and will rejoice in the comparative luxury of a budget for the year of £140,000. NERC says that its object in these negotiations has been to establish "a new growing point for research in the wider field of coastal oceanography". Although everybody is agreed that the institute's links with the University of Liverpool will survive—the staff will continue to teach, and the institute will continue to accept post-graduate students—it does appear that NERC and the institute regard the new development as an essential preparation for a larger programme of work in what NERC describes as a field "which is now of major economic significance to many aspects of the commerce and welfare of the country".

Dr G. Rossiter, the director of the institute, said earlier this week that the new association would provide opportunities, inaccessible within the framework of UGC financing, of equipping the institute with the kinds of instruments which are now necessary in coastal oceanography. One prize will be a research vessel. There are also plans for new kinds of instruments—work is already under way, in association with the National Institute of Oceanography, on a serviceable permanent tide gauge. Evidently the new institute is hoping to supplement its present skills in the construction and exploitation of mathematical models for the prediction of tidal movements with a programme of well instrumented observations, principally in the Irish Sea. Extra people, particularly experimental officers, are also among the benefits which Dr Rossiter hopes will flow, but he may find that government establishments are not much more able than universities to compete with industry for skilled but unprofessional labour.

The formation of the new institute will augment what is now a substantial list of institutes working independently on oceanography and related topics. The National Institute of Oceanography is still the chief of them, but the Ministry of Agriculture's laboratory at Lowestoft, the Ministry of Technology's Hydraulics Research Station at Wallingford and the independent Marine Research Laboratory at Plymouth are only some of the other institutions now operating in oceanography. These developments inevitably raise two important administrative questions—what arrangements will there be for coordination among the several institutes and what influence will the universities command on the strategy of research? NERC seems to be hoping that steering committees with cross membership will prevent poaching, but the overlap between Wallingford and Liverpool is potentially troublesome. Whether the Oceanography and Fisheries Committee of NERC will be able to keep a hand on the tiller remains to be seen, but in any case there seems very little anxiety in the research council to fight the fashionable view that universities are for teaching, not research.

EURATOM RESEARCH

Budget Trouble Again

ONCE again, there has been a wrangle over the Euratom research budget, which for 1969 was not adopted by

the European Economic Community's Council of Ministers until earlier this month. For the first time, member states have had to be given an opportunity to opt out of research projects and for this reason the budget is split into two parts—a joint programme compulsory for all the member states and a supplementary programme in which states will only pay for items in which they are interested. The budget only takes Euratom to the beginning of July, by which time the organization hopes to have at last agreed on a research programme covering several years.

Euratom's research plans have been in disarray since the end of the second five-year research programme in 1967. Chiefly because of disagreements between France and the other member states, the organization made do with research budgets spanning only twelve months at a time for 1967 and 1968. When the joint and the supplementary programmes making up the six-month budget which has now been adopted are added together, the result is still marginally proportionately less than was available last year. The joint programme and the supplementary programme each make up roughly half of the total of \$48.9 million. Negotiations have not yet begun for the budget spanning several years which must be established before July, but the end result is likely to be a cut in research funds.

The largest item in the budget is research on heavy water reactors, which takes \$5.4 million of the joint programme and \$4.0 million in the supplementary programme. Next is fusion and plasma physics, with \$6.2 million entirely in the joint programme, and research on plutonium and the transplutonium elements with \$1.8 million in the joint programme and \$2.5 million in the supplementary. Fast reactors and high temperature reactors appear in both programmes, and gas reactors, including Dragon, are each taking more than \$1 million. Research both into condensed state physics and into nuclear physics is in the supplementary programme and both will cost about \$2 million in the current six months.

The way in which provision has had to be made for France to drop out of Euratom research is going very much against the grain. The other five members are showing their disagreement with the French attitude by continuing to finance parts of the supplementary programme in which they are not concerned, despite their right to drop out.

The Council of Ministers has also been concerned about redundancies in the research staff caused by the six-month budget. There is no employment under the new programme for 382 members of staff, but all will be retained at least until July, and some of them will be reabsorbed before then.

PATENT LAW

Once and for All

AFTER years of wrangling over which countries should be included in a European system for granting patents, the countries of the EEC have at last agreed on a memorandum on the creation of such a system which will be sent to interested non-member countries as a basis for negotiation.

At present, patents are valid for only one country, so that one invention may have to be patented in, say,

twenty different countries, which involves a waste of time and money and which has resulted in a backlog of several years' work in most patent offices. Since the early sixties, the possibility of creating a single European patent law has been discussed, one of the problems being to find an acceptable compromise between the different types of systems. In Britain and West Germany, for example, there is a full examination and a chance to raise objections before any patent is granted, while in France patents are simply registered without testing or approval.

A draft convention was in fact published in 1962 by the countries of the EEC, but its adoption was held up by the Dutch refusal to go ahead unless Britain and other countries were included. Under the terms of this convention, provisional patents are granted once an invention has been shown to be novel, but it has to be more carefully examined before a final patent is granted. Any patent lapses after twenty years. One interesting clause states that no patents can be granted for plant and animal varieties or for biological methods of producing plants or animals. The latest memorandum, approved at the Council of Ministers meeting at the beginning of March, is based on this draft convention.

In line with the EEC's decision last December (*Nature*, 220, 1268; 1968) to invite outside countries to collaborate with the Common Market countries in well defined fields of technology, seven countries—Austria, Denmark, Ireland, Norway, Sweden, Switzerland and Britain—are to be included in the invitation to discuss the proposed system. Ministerial talks are expected to start soon, according to a spokesman from the European Economic Community.

UNIVERSITY ENTRANCE

Where the Students Go

THE number of overseas applicants for places at British universities in the academic year 1968-69 fell by 20 per cent. At the same time, admissions in science and technology from home and overseas fell short of estimates by almost 1,200 and in medicine and dentistry the shortfall was 295, according to *The Sixth Report of the Universities Central Council on Admissions* (UCCA, 8s). The drop in overseas candidates from 9,643 in 1966-67 (9 per cent of the total) to 7,704 (7 per cent of the total) no doubt reflects the rise in fees for overseas students from £70 to £250. The first preference of overseas candidates, however, remains much the same as in the previous two years and follows an interestingly different pattern from that of home students (Table 1).

Table 1. PREFERENCES OF HOME AND OVERSEAS STUDENTS, 1968

Subject	Home students		Overseas students	
	Preference order	%	Preference order	%
Engineering and Technology	4	13.8	1	31.0
Science	2	20.1	4	8.2
Medicine	5	7.9	3	22.3
Social Studies	1	28.9	2	24.5
Languages	3	15.0	5	5.5

Table 2 shows the actual number of first year students admitted by all the universities for October 1968. The shortfall in science and technology, which reflects a shortage of suitably qualified applicants, and the surplus of students admitted in the social sciences has become almost a traditional feature of British universities, but the surplus of social science places was smaller than in 1967 when admissions exceeded estimates by 563. As in previous years, there was a surplus of suitably qualified candidates in the arts, social sciences and medicine.

Table 2. ACTUAL AND ESTIMATED ADMISSIONS TO UNIVERSITIES BY OCTOBER 1968

Subject	Admissions	Estimate as of May 1968	Surplus and shortfall
Education	872	77	+101
Medicine	4,564	4,859	-295
Engineering and technology	9,902	10,357	-455
Science	15,208	15,946	-738
Social science	12,202	11,779	+423
Agricultural and veterinary studies	1,146	983	+163
Total, all subjects	58,481	59,583	-1,102

The UCCA clearing operation for candidates not accepted to begin with involves 21,347 candidates. Of these 9,190 were considered by UCCA to stand a chance of getting a place and were referred to the universities. More than half of them were dealt with after September 4 and by October decisions on all had been received from the universities. Altogether, 4,564 were accepted. The competition in the various fields is clearly reflected by the proportion of applicants accepted in the clearing operation. In medicine, for example, only 293 out of 1,154 applicants were placed, but in physics, chemistry and mathematics, about a half were found places. The number of candidates applying for universities through UCCA continues to increase. Since 1965 the number of applicants has risen by about 10,000 a year to 110,400 in 1968 and 53,644 were admitted. But during the three years 1966-68, the proportion of men and women, 70 per cent and 30 per cent, has remained constant.

NUTRITION

Unfed to School

THE House of Lords discussed on March 11 the possibility of a research project on malnutrition among schoolchildren, largely on the basis of a report by Dr G. W. Lynch of Queen Elizabeth College which suggested that many children are too undernourished to concentrate on their school work (*Medical Officer*, January 24, 1969). Dr Lynch's studies have revealed that many children in London eat nothing for 18 hours of every school-day. Twenty-five per cent of a sample of eighty children between 9 and 11 went to school without breakfast. Parents seem to assume that children eat a substantial lunch at school, but children tend to refuse to eat some school food, particularly vegetables.