

## Public Money for University Research

UNIVERSITIES are notoriously proud of their independence, both individually and collectively, which is why it is such a great surprise that the Science Research Council has been able to keep its friends in the universities while persuading them to change their ways quite fundamentally. Within three years, the council has established the principle that the pattern of university research should be determined not by the statistical aggregation of the inclinations of university teachers but by a more deliberate process of planning in the course of which the council itself has assumed responsibility for picking out desirable directions for research. At the beginning, to be sure, a great many academics were up in arms, saying that academic freedom would be in jeopardy if the Science Research Council chose to head people off certain lines of enquiry or even to concentrate desirable work in selected universities. Some mathematicians are still complaining (see *Nature*, 233, 225; 1971), but that protest has all the appearance of a rearguard action. Most university departments in Britain are resigned and even glad of the Science Research Council's initiative.

This is why one of the biggest dangers now facing the Science Research Council is that of complacency. The most recent annual report (see page 298) is a vigorous document, but there is a mild suspicion that the council may be more ready than is strictly necessary to compromise with unpleasant truths.

The chief of these is money. In the past year, it has been made known by the present government that the funds available for university research would grow less quickly than the numbers of students in higher education and therefore, by definition, that the proportion of university teachers able to recruit financial support from the research councils would diminish. This simple truth was spelled out clearly enough at the conference organized by the Science Research Council in Manchester last January. To everybody's surprise, the universities have raised no audible protest. By now the policy is accepted, and it is entirely appropriate that the Science Research Council, the principal source of grants for university research, should have decided that the time has now come to end the automatic but cumbersome procedure by means of which funds are transferred from the council to the University Grants Committee at the end of each university quinquennium (the next comes in July 1972) so as to keep in being research projects begun by the research councils. Under the new system, discrimination will be easier. Universities will be under less pressure to institutionalize research groups. To the extent that these effects are consonant with what the Science Research Council has been looking for, it is clear that the grand design can be implemented even more efficiently in the years ahead.

It is therefore proper to ask whether the assumptions on which the new policy is based are as appropriate as everybody supposes. One of the Science Research Council's objectives is to create a greater sense of liveliness in university research and so far, with some success, it has sought to do this by providing not merely research grants but also facilities—laboratories for high energy

physics or for astronomy, contributions to organizations such as CERN and even arrangements for making sure that universities have access to computing machinery. Yet the Science Research Council remains only one of the four organizations responsible for channelling money towards science departments in universities. The three other research councils are smaller in aggregate but just as influential in their somewhat narrower fields. It is all very well for the Science Research Council to boast in its most recent report that all four of them have been able to put their names to a document in which four separate statements on pollution appear within the same cover, but that is a far cry from the coordinated policy on research which British universities now require. Why, after all, should it be the Science Research Council that makes grants for research on high pressure physics but the Natural Environment Research Council that gives out money for closely related topics in geology? Why should it be that the Science Research Council administers central facilities for high energy physics but that the Natural Environment Research Council looks after oceanography (with all its sea-going vessels)?

Another problem concerns the scale on which university research should be carried out. In past decades, the conduct of university research in Britain has been bedevilled by self-justifying prophecies about the capabilities of university departments to look after their own affairs. Large items of equipment have frequently been placed on extramural territory not merely because sharing among several universities is intended but also because it has been held that universities are unable to manage large installations (a notion easily disproved by the radio astronomy observatories which, by historical accidents, are in the pockets of university departments). As the policy of selectivity and concentration succeeds, however, there will be more and more arguments in favour of letting British universities do what American universities have done for the past three decades—to take managerial responsibility for large laboratory installations. When that time comes, the budget of the Science Research Council and its smaller associates should increasingly be spent within universities. That tendency is not merely something to be stomached—it is itself desirable.

A third class of problems stems from graduate education in British universities. For years now, the Science Research Council has been saying that it wishes to encourage a different pattern of postgraduate teaching. Courses should be more relevant to the needs of industry, and students should be more alert to them, but at the same time there is a need somehow to broaden the base of postgraduate teaching so that graduates emerge as more flexible people. So far, these declarations have gone little further than wishful thinking. Yet the fact remains that British graduate education, good though it may be as an intellectual training for enquiring minds, is unsuited to the needs which taxpayers hope to meet by keeping universities in the state of grace to which, quite properly, they say they are entitled. What the Science Research Council should now do is to back up promises with performance.