

and 1968. Expenditure related to education, but not included in Table 1, was £273 million in 1968. This figure includes £107 million on school meals and milk and £82 million on maintenance grants to pupils and students.

SCIENTIFIC EXCHANGE

Travelling with Strings

THERE is some consternation among Indian government scientists at what seems to be a new and restrictive policy towards foreign travel. By all accounts, the directors of laboratories of the Council of Scientific and Industrial Research are not able to accept invitations to travel abroad, either on their own behalf or for their colleagues, without the prior approval of the Ministry of External Affairs in New Delhi. In a circular distributed to directors of laboratories last year, the government says its policy is that although Indian scientists can accept local hospitality from "foreign government organizations", they are not in future to accept the cost of travel. Moreover, it has apparently been decided that government scientists in India cannot accept private hospitality from foreign organizations—learned societies and the like. Attempts are also being made to make sure that Indian government scientists do not indirectly solicit invitations from abroad, even from foreign government organizations.

Although it is, of course, quite proper that an employer—the Indian government—should know what its employees are up to, it seems to have become a tradition that the directors of government laboratories should have quite substantial delegated powers. The restriction on the acceptance of foreign travel funds and hospitality from government organizations abroad is bound to be hurtful at a time when Indian laboratories are more acutely conscious than others of financial restrictions. No doubt policy determined by the Council of Scientific and Industrial Research is intended benevolently, but its effect on the morale of some scientists has been unfortunate.

CANCER RESEARCH

MRC Coordinates

THE Medical Research Council is about to set up a committee to coordinate cancer research in Britain. Membership of the committee is still under discussion, but the MRC has said that all bodies concerned will be represented "both scientifically and otherwise". Fears that the coordinating committee on cancer research would consist only of administrators and chairmen of governing boards thus seem unfounded.

It may appear surprising that the MRC has not before this explicitly planned the coordination of cancer research, but only recently has it held enough cards in its hand. The Institute of Cancer Research (ICR) (which includes the Chester Beatty Research Institute) and the Imperial Cancer Research Fund are the two major institutes of their kind in Britain, but until recently they have been largely financed by charity (although the ICR has been on the MRC's books for a long time). The Imperial Cancer Research Fund (ICRF) still raises its own money (its current income is about £2.5 million a year) and in effect shares the charity market with the British Empire Campaign for Cancer Research (BECCR),

whose annual income runs to about £1 million. The British Empire Campaign does not conduct research itself but gives its money away—its chief pensioner has been the Institute of Cancer Research, which receives an annual £250,000.

It seems that hitherto coordination between the various research organizations and their sponsors has proceeded on a fairly informal basis. The fact that the Institute of Cancer Research, for example, has no virology department presumably reflects what was a gentleman's agreement with the ICRF, although it seems that last year the ICR petitioned the MRC in vain for the funds to set up in virology.

The analogy between cancer institutes and cancer cells should not be pressed too far, but there seems nonetheless a tendency for both types of organism to exhibit uncontrolled growth at the expense of their neighbours; certainly this has been the case abroad, and Britain, too, may not be immune from the disease. The MRC's coordinating committee may be an effective form of chemotherapy, even though it comes rather late in the day, but what kind of remission will it provide? Much will depend on how radical it is prepared to be.

BRAIN DRAIN

Flying Scotsmen

THE high road to England is no longer the noblest prospect a Scotsman ever sees, in Johnson's derisive phrase, but that is not to say the streets of Edinburgh are paved with gold. Over the past century there has been a steady exodus of educated Scotsmen to England and abroad, according to a study of those who graduated from the University of Aberdeen between 1860 and 1960 (*Geographical Mobility and the Brain Drain*, Donald MacKay. Allen and Unwin, 1970. 60s). Throughout the period, the scientists have been readier to forsake British shores than the arts graduates; some 28 per cent of those who took science degrees have worked wholly or chiefly abroad, compared with 19 per cent of those graduating in the arts. Emigrating engineers and doctors, however, have tended to move south of the border rather than farther afield.

Lamenting the paucity of information which has marked public debate about the brain drain, Mr MacKay claims to make the first step towards providing a more rigorous assessment of the phenomenon. Unfortunately his statistics stop short at 1960, which makes it difficult to compare his conclusions with, for example, the inferences from the Jones report of 1967, which deals only with the 1960s and draws on rather different source material—the numbers of British and Commonwealth scientists, technologists and engineers of all ages emigrating from Britain.

The Aberdeen figures show that the rate of emigration fell to an unusually low value in the 1930s but had risen again by 1951 to roughly the same proportion as at the beginning of the century. What they cannot reveal, as Mr MacKay points out, is whether the increase was simply a readjustment or whether it was the beginning of a trend that continued into the 1960s. Support for the second view comes from a survey in *Lancet* (ii, 427; 1969) which implies that a third of Aberdeen's medical graduates in 1956–58 are now working abroad. For Mr MacKay's 1951 sample, the corresponding proportion was only a fifth.