

nature

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Select Committee needs a better analysis than this

It is depressing that the House of Commons Select Committee on Science and Technology, in its latest report on research in universities (HC87; HMSO, 75p), should have marred an on-the-whole sensible and careful document by some ill-considered remarks about "a handful of highly favoured scientists" who "may influence the formulation of Science Research Council (SRC) policy". Even though the committee protests that the paper is an interim one, and that it is only asking questions and seeking out topics for further investigation, there is cause for concern that it should have gone into print with an appendix in support of this musing which can by no stretch of the imagination be called well researched.

This appendix argues that a few scientists get a lot of money. The list of 3,000 SRC grants in operation in 1973-74, totalling £53 million, was analysed, and it turns out that the top 2% of recipients get 20% of the funds (in grants of £100,000 or greater), and 10% get 45% of the funds. The mean value of grants issued by the Nuclear Physics Board (which also comprises high energy physics) is ten times that of the Mathematics Board. And people who accumulate more than one grant are more likely to be those who are already in receipt of large grants. (This rather depends on whether you believe that the 13 out of 31 recipients of big grants who receive further grants is a significantly higher fraction than the 307 out of 919 recipients of relatively small grants who land a second grant.)

The report's analysis of the trend with time shows that in 1974 almost no grants were awarded for a period of longer than three years; in earlier years 20% fell into that category. Finally, the mean grant size in nuclear and space science seems to have leapt up very significantly in 1974.

The conclusion is that there is a "concentration of large resources in a handful of outstanding individuals" which "seems to indicate at the very least that SRC policy is as much influenced by the demands of a small core of scientists as from any centralised decisions about what lines of research ought to be pursued". Nuclear physics takes a "disproportionately high percentage" of the budget; the SRC does not seem to be making any long term investments, and the increase in nuclear and space grants "would seem to indicate an increased commitment to expensive projects".

The evidence on which these conclusions or indications are based is so incomplete and selected with such ignorance of how science funding operates that the select committee should disown the report. It represents the worst sort of sociology of science in which actually talking to people is regarded as a poor substitute for computer analysis of a mass of data. Had the compiler of the report spoken to the SRC (which he or she palpably did not) before attempting to guess motives and policies, a much more profound analysis could have been made. As it is, the most glaring nonsense is talked of highly favoured individuals, "36

researchers control 23% of the budget" and so on.

Two things need to be said about this apparently charmed circle of researchers. First, some science is necessarily very expensive and requires major capital investment. To deny such expenditure simply because it is widely different in scale from that for most scientific endeavour is to condemn British science to small-minded egalitarianism. Second, the circle is not small at all. Had the committee investigated who gets the big money, they would have found that there is no room on the SRC grant application form to list co-investigators. In some cases the head of a department or a large facility (such as a radiotelescope) secures all the money under one heading, for administrative convenience, and may have 30 or more staff on the grant, pursuing independent work. In other departments, individuals go for their own grants. Thus talk of funds being concentrated among relatively few researchers is meaningless if the committee's investigations are carried out so superficially as to consign this central issue to an observation in a footnote that "research funds probably reach a wider population".

The analysis of temporal trends is equally badly under-researched. Remarks are made about the SRC's "increased commitment" to expensive projects, on the basis of a growth in the grants to space and nuclear science. This "growth" is based on a comparison between grants awarded before 1974 and still current in that year, and those awarded in 1974. But this is no comparison at all without knowledge of funding policy. If the grant committee awards money for relatively cheap research posts (assistantships and fellowships) on a three-year basis, and large capital expenditure on a one-year basis, every new year will see a carry-over from past years of relatively small sums in continuing grants, but the award of large sums for the one year. The average grant continuing into 1974 in nuclear physics was £428 a month. The average new grant was £4,359 a month. Nine hundred per cent growth or an unimportant indicator of detailed grant-giving policy? The report gives no indication that anyone tried to find out. Clearly no-one read the SRC's last annual report on the question of financial strategy. It is deplorable that such a slipshod job coupled with pure guesswork should pass for an analysis of the SRC's policy.

Science is increasingly suffering from divisiveness these days, as different groups are set against each other. If in the name of egalitarianism this fatally flawed report is accepted and used as the basis for recommendations, the committee will have to bear the responsibility for the further decline in morale among those in big science. And the clear bias against nuclear and space science pervading the report looks more than a little ridiculous when it turns out that 60% of those big grants actually go to fund engineering projects. □