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Cambridge : its manpower and money

THE University of Cambridge, in an annual gesture calculated to bring some relief to an editor beleaguered in the August silly season when government and universities vanish, has just released a small mountain of statistics. Two issues of the *Reporter*, issued on August 7, deal with student numbers and with sponsorship of research within the university. At ten pence, the pair provide a remarkably detailed profile of a university which has often claimed, with some justification, to be particularly distinguished in the sciences.

For several years Cambridge's undergraduate numbers have remained relatively constant. There is at the moment still a swing towards admitting more women but total numbers of students rose only 0.5% last year. On the other hand the numbers of those applying to enter is falling rather rapidly as Table 1 (compiled with the help of a *Reporter* of last year) shows. At present roughly half of those who apply get accepted, not long ago it was barely a third.

Table 1 Trends (percentages) in student numbers from 1973 entry to 1974 entry.

	Applications	Acceptances
English	−18	+3
History	−7	+3
Modern languages	−18	+2
Law	+5	+4
Mathematics	−9	+2
Natural sciences	−16	−10
Engineering	−8	+2
Medical sciences	−3	−1

The swing away from science is manifested in an interesting way. If we can assume certain standards of rationality in the selection procedure we must conclude that the swing is more in quality of student than in quantity of applications. All of this is well known on a national and international scale, and those in provincial universities can be excused a wry smile that Cambridge is beginning to feel the breeze that is a gale in their own laboratories. Once the trend has started downwards, though, the question must be whether the resources of Cambridge are capable of reversing it. The news can only be good for teachers of science in schools, getting increasingly used to being courted by other universities and now, at long last, to be wined and dined at High Table for the favours of their shrinking brood.

The other report puts together expenditures, by sources outside the university, of research projects for the financial year 1972–73. At the detailed level it is a delight. The Department of the Environment spent £150 with Applied Mathematics of "Effect of wind on people". The Veterinary School received £522 worth of equipment and materials from "Broilers—various". The Science Research Council cheerfully gave £88,651 for "Observational and theoretical astronomy" but needed the justification of "Spectroscopic studies of some metal deficient and some strong line *g* and *k* type stars" before forking out another £40. And what does one make of the Ministry of Defence's total expenditure—£114,000 by our addition, £14,000 by the *Reporter's*? Misprint or deceit?

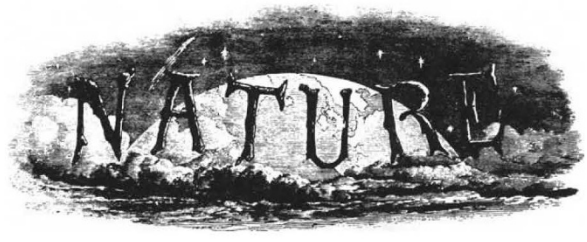
Table 2 Sources of research funding 1972–73.

	£
Government bodies	2,125,000
Charities, trusts, foundations	480,000
Overseas bodies	98,000
Four industries*	81,000
The rest of British industry	60,000
Studentships and capital expenditure excluded	

* Mullard, Beecham, Rolls-Royce, Tobacco Research Council.

Table 2 brings together the sources—our interpretation and our addition. It is worrying, to say the least, that the university has such a restricted financial relationship with industry. Here, surely is a pointer to the mutual suspicion between industry and academics which is such a disagreeable feature of British scientific life. And here, also, is a good place from which an improvement in relations could grow. It would be quite wrong to point a blaming finger specifically at either side, but perhaps when the schoolteachers have had their meal at High Table there might be something left over for industrialists. If not, Cambridge's days as an outstanding university could be numbered.

100 years ago



M. MAREY has recently published the results of experiments undertaken to determine by the graphic method what is the true movement of the legs in walking. His results prove convincingly that the brothers Weber were wrong in assuming that the oscillation of the leg which is not in contact with the ground is the same as that of a pendulum ; for when it is represented on a uniformly moving plane, the line drawn is a straight and not a curved one. The movement of the suspended foot is therefore uniform, depending on muscular action, in combination with that of gravity.

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