

## **Speech to House of Lords, June 14<sup>th</sup> 2000**

My Lords, I have had recent experience of higher education in the U.K. and abroad both from the point of view of a provider, as a Professor, and as a customer, as Chief Executive of the Meteorological Office and director of a consulting company. I should declare these interests. I have also been involved in discussions about the content and standards of degrees as President of the Institute of Mathematics and its Applications.

As a result of government policy and by their own efforts, U.K. universities are now graduating more students per head of population than most other countries in the world and are attracting increasing numbers of overseas students to UK for courses that cover a wider range of basic and applied subjects than in other countries.

During the past decade the universities have undergone the same remarkable managerial transformation along with other parts of the public service in the U.K. With almost no training in management, accountancy, etc., academics running departments in universities now know the cost of staff, equipment, buildings, etc. and the income they generate from teaching and research. As a result many decisions about staff duties as between teaching and research, appointments, salaries, resources, etc. are taken quickly and at the level of the department. One has only to compare with other university systems in both America and Europe to see why our universities are quite efficient and spend relatively much less on administration. The structure we now have in the U.K. is broadly sustainable, and I trust the Government will not be changing it radically.

However, if universities are to increase further the number of students being graduated while improving standards, more resources are needed especially for the infrastructure of the buildings, libraries and scientific equipment, and for staff salaries. Here comparison with North America would show that most state university libraries there are better resourced than those in many leading U.K. universities. As for the state of some buildings in universities and even teaching hospitals, your Lordships could be shocked.

Because of low salaries, outstanding scholars and teachers are leaving or are not entering universities. Their levels are not competitive with those in the Civil Service, let alone the private sector, and yet most academic staff are working a 50-55 hour week with no overtime payment. On the continent there is generally a connection between academic and Civil Service salaries; surely that provides a reasonable basis for comparison? The Bett report endorsed the concept of a general salary structure with local and personal variations. I hope the Government will provide more funding and guidance than they have hitherto.

As a result of managerial reform, H.M. Treasury can be assured that public money is spent responsibly. Average student/staff ratios have increased from about 9:1 up to 17:1 over the past 20 years and therefore it will be very difficult for universities to find further 1-3% efficiency savings per annum as they are being urged to by the government. As with other organisations in the public and private sectors, the next big round of savings can only come from structural changes. In the University this means significant changes in teaching methods. All those concerned with universities including the government need to consider this question. Will it lead to less tutorial work and more large lecture classes such as are standard in American universities, including the very best.

Whichever solutions are reached it is essential for the U.K. economy that our graduates are as good as those in other countries. But we should not forget the higher ideals of university education to form graduates who will lead fulfilling lives and contribute and provide leadership to society.

To meet international and European standards in science and engineering, many U.K. universities have introduced 4 year degrees. Nevertheless, some foreign governments, multinational companies and academics, and professional engineers have expressed concern about the level of certain first U.K. degrees, and also about the level of UK professional qualifications in relation to those on the continent. Considerable ingenuity and leadership will be required by the quality assurance agency and the professional institutions to introduce different and appropriate levels of technical qualifications.

At the same time as increasing the number of students, the Government Chief Scientist, Sir Robert May, has pointed out scientific research in U.K. universities is world class and very cost effective. This is helped by the research assessment exercise, which encourages staff to re-energise their research careers and also redefines the roles of those not engaged in research.

As for funding of research, the substantial recent increase provided by the present government was an essential first step in slowing the relative decline of the total volume of UK research in universities.

Nevertheless there remain concerns about the future position of U.K. research as other countries, especially the U.S.A., are increasing their funding of scientific research faster than

here, especially in almost all the fields of science, engineering and medicine. It was worrying that, as the Royal Society has noted, there is a planned reduction in research by government departments and agencies. This source of funding plays a crucial role in stimulating applied research and high technology industry in the U.S.A.. In the UK the scientific community expects that a good proportion of the government revenue from new developments in science and technology, such as the licensing of wavebands for mobile phones, will be ploughed back. Games theory and economics research at University College London helped the government devise the ingenious arrangements for the bidding process. This is a clear example of the ever wider role that universities are having in our society. This will flourish provided they have the resources and encouragement from their supporters everywhere, including of course in this House.