

"Short-term action needed to save physics" warns Institute

April 7 2005

The Institute of Physics welcomes the publication of the House of Commons Science and Technology Committee's report on 'Strategic Science Provision in English Universities', but warns that the most feasible measures highlighted in the report are of a long-term nature, and agrees with the Committee that without some short-term fixes, such as funding the real cost of teaching of laboratory-based sciences, many science departments will inevitably struggle to survive.

The Institute also shares the Committee's concern about the teaching funding formula for science subjects. Commenting on the report, Professor Peter Main, Director of Education and Science at the Institute of Physics said: "To save physics departments in the UK we need to stop the real-terms cuts in funding and look critically at the way these departments are being funded. The current price weighting for physics doesn't actually cover the real cost of teaching the subject so departments are constantly losing money."

He continued: "The number of students who want to study physics is steady, and not actually falling so it's important that we have enough departments around the UK for students to study at and that we don't create large areas of the UK with no provision in physics – regional deserts for science."

The Committee's report has highlighted a number of measures, which over a long-period of time may increase student demand and improve the attractiveness of a career in science. In particular:

-- **It is essential that we stimulate demand for science subjects.** To that effect, the Institute is working closely with the HEFCE to look at measures to increase demand for undergraduate physics courses, including what can be done to enhance the attractiveness of university physics courses. We are especially delighted that the Committee has singled-out the Institute's Undergraduate Bursary Scheme as a model that can be used nationwide to boost uptake for shortage science subjects. The Institute expects to offer bursaries of around £1000 per year to selected undergraduates studying physics in the UK. The scheme will be operational from the academic year 2006/07.

-- The Institute has lobbied hard for improved careers advice in schools, and welcomes the Committee's recommendation that the Government should encourage all schools to offer impartial careers advice, which too often is ill-informed about science. In addition, we agree with the Committee, that a nationwide advertising campaign should be implemented to raise awareness of careers in science. The Institute would welcome a campaign for physics focussing on the message that the earning potential of physics graduates is second only to lawyers and medics.

-- **Need for universities to work together:** The Institute questions the practicality of the working recommended by the Committee, in light of the competitive environment in which universities have been operating of late. We look forward to the Government's official response to this recommendation.

Physics in UK Universities

The economics of university physics departments has led to the loss of several departments in the past ten years. Over 30% of physics departments have disappeared since 1994. At present, there are fewer than 50 UK universities offering a provision for undergraduate physics.

Larger areas of the population and industry now have no convenient access to a local university physics department offering teaching or research. As the proportion of students living at home increases, and as industry becomes more dependent upon high-technology knowledge, these regions will suffer from a lack of proximity to university physics.

Physics is, by its nature, a resource-intensive subject to teach, in terms of both teaching staff and laboratory provision. In the past 10 years, the university physics student/staff ratio has increased. The increase has been less dramatic than in some other subjects, as there were very few physics departments in the former polytechnics. As industry's demands for graduates with a high degree of technical knowledge and expertise increases, it is incumbent upon universities to have modern facilities and equipment. The cost of providing such equipment has risen at a faster rate than inflation.

Source: Institute of Physics

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