



The Save British Science Society
29-30 Tavistock Square, London, WC1H 9QU
Tel: 020 7679 4995 Fax: 020 7916 8528
THE INDEPENDENT CAMPAIGN FOR EFFECTIVE SCIENCE POLICIES

5 January 2005

Dr Kim Howells
Minister for Higher Education
Department for Education & Skills
Sanctuary Buildings, Great Smith Street
London SW1P 3BT

Dear Dr Howells,

When we met you and your colleagues on 20 December you asked for suggestions on how the crisis in science education in our universities might be tackled. Here are our thoughts:

- ❖ *Past and present policy failures by DfES and HEFCE are the biggest threat to the Prime Minister and the Chancellor's shared aim of making the UK the best place in the world to undertake research.* These failures therefore also threaten the return on the considerable investment that the Government is making in science. The problem is at its most acute in England, with Scotland in particular providing some encouragement that a rational way ahead can be found.
- ❖ *Viewed in terms of the nation's long term interests, the continuing decline of student numbers in core sciences, maths and engineering represents a clear case of market failure.* Dealing with market failure is one of the generally accepted purposes of Government. A strategic approach is needed.
- ❖ *A root cause of the problem is that the teaching funding that the HEFCE provides to universities for core sciences such as chemistry and physics is inadequate.* Even when student recruitment is buoyant, teaching these subjects is not viable without substantial research funding, as the case of Chemistry at Exeter shows very starkly. This is not the situation for classroom-based subjects such as Law, English Literature or Business Studies, where there are many departments that continue to prosper despite having very little or no research funding.
- ❖ *HEFCE should therefore be invited urgently to establish a level playing field, so that funding for each subject reflects the true teaching costs.* A suitable benchmark would need to be established to allow the calculation of true costs, and we suggest that for core sciences this should be 50 students in each of three years of an undergraduate course. HEFCE teaching funding should be sufficient for a well run HEI with these numbers to provide an undergraduate experience of a sufficient quality to attain professional accreditation.

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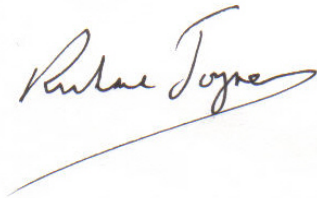
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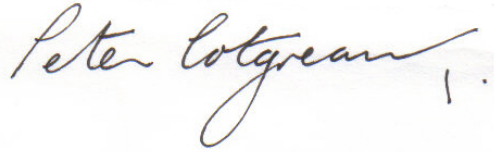
- ❖ *The extra money needed to achieve this could be obtained by diversion of funds from classroom-based subjects or by short term diversion of capital funding to the revenue stream.*
- ❖ *The Government needs to recognise that its declared policy for England, of having only a premier league in scientific research, is a nonsense. Ultimately this is a chimera, which will not protect research quality, and will further twist the vicious circle of declining student numbers. The nation needs to have premier league teams, but it also needs 'other divisions' to nurture players for the premiership and the economy. In an academic context this means that we need Higher Education Institutions active in core sciences whose prime concerns are teaching quality and access, rather than merely research excellence.*
- ❖ *Regional lack of core science provision is increasingly a serious problem. With declining interest in core sciences and maths, the nation cannot afford to have potential students deterred or diverted into other areas because there is no suitable course available in their locality or region.*
- ❖ *DfES needs to do more to encourage well qualified teachers into SET subjects. The best way to enthuse school pupils is by inspirational teaching. Yet fewer graduates means even fewer qualified teachers, since SET graduates can often command premium salaries in non-SET subjects such as Law or Banking. DfES needs to make sure that our science teachers are also among the best in the world, and in the first instance we believe that this can be done within your Department's current budget.*
- ❖ *Lastly, the salaries of University staff in SET subjects needs to be made more competitive. The scale of the problem is about £250 million per annum, as detailed in the report of the SBS Symposium that we sent you recently. So much could be achieved if you can recover the £250 million per annum that your Department received for this purpose in the present spending round, but chose to divert to other things. Although it is true that universities are autonomous bodies and you cannot dictate how much they should pay their staff, it is also true that they cannot pay staff with money they do not have.*

Thank you for the opportunity to engage with you on these issues.

Yours sincerely,

A handwritten signature in cursive script, reading "Richard Joyner". The signature is written in dark ink on a light-colored background.

Professor Richard Joyner, Chairman

A handwritten signature in cursive script, reading "Peter Cotgreave". The signature is written in dark ink on a light-colored background.

Dr Peter Cotgreave, Director