

David Laws MP  
Minister of State for Schools  
Department for Education  
Sanctuary Buildings, Great Smith Street  
London  
SW1P 3BT

10 December 2012

Dear Minister,

### **Impact of funding changes at 16-19 on the uptake of science A-levels**

SCORE, a collaboration involving the Association for Science Education, Institute of Physics, Royal Society, Royal Society of Chemistry and Society of Biology, has recently learnt that all academic 16-19 qualifications will now be funded at base rate. The letter confirming the removal of subject weighting was sent out to schools and colleges on 25 October 2012.

We are extremely concerned this announcement will have detrimental effects on the offering and uptake of science A-levels, particularly on the long-term provision at 16-19. We know that the Government supports and encourages the uptake and quality of the sciences at school; so the likely negative impact of these changes would clearly be unintended – but no less real.

The sciences are practical subjects and therefore more expensive to run, requiring the upkeep of laboratory facilities, purchase of equipment and consumables and continued support for technician staffing. On a purely financial basis, the removal of the 12% weighting for science academic qualifications is likely to discourage schools and colleges from offering these more costly subjects. Even if schools continue to offer science A-levels, the removal of the weighting will determine the resources provided to the teaching departments. Almost certainly this will result in science departments following one or more of: cutting teaching time, reducing the resourcing of practical work or employing less experienced/cost-effective staff to deliver the practical work. This will all impact negatively on students' experience of science education.

An early finding from SCORE research has found the sciences to be more expensive to deliver in comparison to other subjects. Research published by the 157 Group, a membership group of Further Education Colleges, also supports the claim that STEM subjects at 16-19 are more expensive to offer. In February 2013 we aim to have further evidence to demonstrate the potential impact the funding formula changes will have on the offering and delivery of science A-levels.

SCORE raised these concerns in the Department for Education's 16-19 funding consultation in January 2012. We recommended then that the Department undertake further modelling to measure the impact the transition will have on different types of providers and any unintended consequences this may have on the A-level sciences. Particular consideration needs to be given to schools with small sixth forms or small to medium sized science groups who might consider the subjects to be no longer viable and, at the other end of the scale, to institutions with a large science uptake who will suffer severe funding cuts

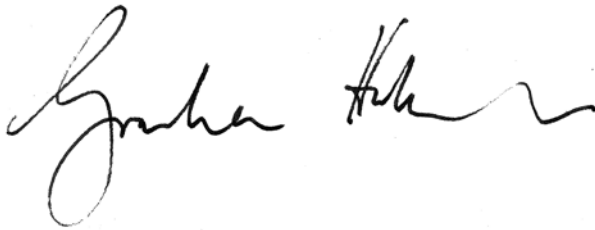
under this new policy. It is unclear whether this modelling work has been undertaken and, moreover, on what evidence the new policy is based. We would welcome any clarity you could provide on this.

We also raised concerns on the proposal to remove additional funding for programmes of study that exceed the 600 guided learning hours. While we agree the funding formula should remove perverse incentives to pile up qualifications, we do not believe students should be discouraged from taking larger programmes of study where there is good educational reason to do so. Mathematics and Further Mathematics AS and A-level are natural additional subjects for any science programme of study at 16-19, and it would be wrong (and we do not believe it is the Government's intention) to discourage a provider from offering these combinations of 4 or 5 A-levels.

I therefore urge the Government to reconsider its decision not to provide higher-rated funding for the sciences at A-level and would welcome a meeting to discuss the matter further. Despite Government commitment to increase the quantity and quality of STEM graduates and its recognition that the sciences are strategically important subjects for the UK, SCORE fears the new funding formula will lead to the reduction in the number of students able to access science A-levels.

In the interests of transparency this letter will be published on the SCORE website early in the new year.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Graham Hutchings', written in a cursive style.

Professor Graham Hutchings FRS

SCORE Chair