

Student number controls and teaching funding

Part 1: Student number control and teaching funding: policy, priorities and principles

Question 1: We have proposed a set of principles to inform our approach (listed in paragraph 94). Do you agree with the principles we have outlined?

The Institute of Physics (IOP) agrees with the principles set out in the consultation document. In particular, we endorse the need to support high-cost subjects such as physics.

Question 2: Do you have any comments on the impacts, positive or negative, that the proposals in this consultation might have on equality and diversity?

We welcome the stated aim of the proposals to support wider participation. The IOP has worked to identify and overcome the barriers to participation in physics for women, people from ethnic minority groups and people from lower socio-economic groups. Initiatives include: *Girls in Physics*ⁱ to understand why only around 20% of those taking physics post-16 are female; the *Ethnic Diversity*ⁱⁱ pilot project to explore the practical approaches that will encourage students from diverse ethnic background to choose physics; and the *Raising Aspirations in Physics* project to work with a school in North East England to investigate how to promote physics to students from lower socio-economic groups.

HEFCE's assessment of the impact of the proposals on equality and diversity recognises the difficulty in predicting the impact on student numbers and teaching funding given that these take place against the background of wider changes to higher education funding. Therefore, it will be important for the reforms to be closely monitored in terms of equality and diversity and appropriate adjustments made to remove adverse impacts.

Part 2: Student number controls

Question 5: Do you agree that we should consider making adjustments to providers' number controls, where necessary, to take account of changes in their average course duration?

The higher education reforms may have an adverse impact on uptake for the four-year integrated Masters degrees – the MPhys/MSci – which are now the norm for those considering a career in university or industrial R&D. Financial constraints are certainly a factor in some able students choosing to study a three-year degree, and avoiding the extra year of debt accumulation; this may particularly be the case with women, who we know, for whatever reason, are less likely to study for a fourth year. HEFCE teaching funding provision will need to ensure that science departments can continue to afford to offer four-year courses, and we would not wish to see an adjustment to student number controls that would harm recruitment to these undergraduate programmes.

Part 3: Proposals for funding teaching from 2013-14 onwards

High-cost subjects

Question 7: Do you have any comments about our proposed approach to supporting high-cost subjects?

From our perspective, we want to ensure that university departments receive the full costs associated with teaching resource-intensive subjects such as physics. However, we are concerned that the new funding regime introduced by the government will make it more attractive for universities to attract more students in the arts and humanities than in science; charging £9,000 tuition fees, a university will make a 'profit' on every arts and humanities student but will arguably lose money on every science student.

The teaching of science subjects is expensive compared with the arts and humanities, because of the need to impart practical laboratory-based skills that require adequate floor space, consumables, often expensive modern equipment, and dedicated technical staff to support the laboratory programme. It is important that HEFCE provides adequate funding for the sciences that, in addition to tuition fees, covers the entire cost of teaching. Sufficient capital funding must also be available from HEFCE to invest in teaching facilities and laboratories to ensure that they provide an experience that prepares and encourages students to enter the modern research and industry environment. This is essential to deliver employer demands for more practical, hands-on experience in the graduates they recruit to avoid the need for 'remedial' training, a practice that is uncompetitive with international comparators.

Most universities in England that offer provision in science subjects will charge the maximum fee of £9,000 from the 2012/13 academic year. Annex C of the consultation document shows that the cost for physics undergraduate teaching, based on TRAC(T) costing data for 2007-08 to 2009-10 and inflated to 2013-14 prices, is £10,619. Table 3, on page 41 of the consultation, document sets out the notional full-time undergraduate rates of resource for 2013-14, listing an upper income total of £10,500 for Band B subjects. This figure includes HEFCE teaching grant of approximately £1,500 and the maximum chargeable tuition fee, which currently stands at £9,000. We are concerned that this additional teaching income of £1,500 may be forced down if HEFCE funds have to be re-allocated to cover the costs of higher than expected tuition fees across the sector.

As we understand it, TRAC data demonstrate that the cost differential between science and non-science subjects is currently of the order of £3,000-£3,500. As a result, even with teaching funding provided by HEFCE, a university accepting a new science student in 2012-13 will suffer a financial penalty of around £2,000, compared with one accepting a new arts or humanities student. This will remain an acute problem for 2013-14 and beyond as paragraph 190 of the consultation document states that HEFCE's approach to support undergraduate provision for 2013-14 and 2014-15 will broadly lead to funding rates similar to those for 2012-13.

It has been noted that HEFCE has already taken steps to ensure that the implementation of the government's proposals for controlling undergraduate student numbers in 2012-13 do not provide incentives for providers to move provision away from subjects previously identified as strategically important and vulnerable (SIV). It is not clear whether these incentives will be sufficient and whether they will continue into 2013-14 and beyond, which leads to a degree of uncertainty for SIV subjects. However, we are reassured, for the time being, to note that paragraphs 216-18 of the consultation document state that HEFCE will continue to allocate the additional SIVs premium (which was around £1,000 per student per

annum) from a total pot of £23m. This premium was introduced in 2007-08 in response to a number of departmental closures of strategic and high-cost subjects, such as physics and chemistry; according to the consultation document, the allocation of this premium is removed from the TRAC(T) costs of subjects such as physics, thus the total cost of provision will be understated. Whether HEFCE will be in a position to implement this additional income on a recurrent basis, as under the previous funding regime, is not at all clear. But, until the perturbations caused by the introduction of the reforms have settled and are completely understood, it will be imperative for HEFCE to ensure it allocates sufficient teaching income for SIV subjects, irrespective of budgetary pressures. This will help to ensure that physics departments will not be underfunded on their teaching income, and as a consequence of that, under threat of potential closure.

Question 8: Do you agree that we should provide funding support for postgraduate provision including for price group C, as a transitional approach together with further development of the evidence base for future investment?

HEFCE should provide funding support for taught postgraduate courses at the previously provided level. In addition, to encourage further participation, HEFCE should also work with the government to support MSc courses of strategic importance through an extension of the undergraduate loans scheme or similar low-cost financial support, particularly in areas valued by industry such as nuclear physics, and geophysics.

Strategically important and vulnerable subjects

Question 17: We have been asked by Government to consider a new approach to strategically important and vulnerable subjects and whether any subjects may require support to avoid undesirable reductions in the scale of provision. Do you have any comments on our proposed new approach to supporting this area through recurrent funding?

Generally, we are of the view that the new approach appears to be sensible. In particular, we welcome HEFCE's commitment to continue to take specific steps to sustain the current group of SIV subjects including physics. Indeed, the Institute will carefully monitor the financial viability of all physics departments in England; historically, it was the high profile closures of physics and chemistry departments that led to formal action being taken by HEFCE to introduce the additional SIVs teaching income, which reduced the funding deficits in teaching income of many physics departments across England. We sincerely hope that no physics department in England will be under threat due to the new higher education reforms, especially as the number of first degree entries to physics has been increasing over recent years; however, the financial attractiveness now associated with arts and humanities students, could have unintended consequences that HEFCE needs to monitor.

ⁱ http://www.iop.org/education/teacher/support/girls_physics/page_41593.html

ⁱⁱ http://www.iop.org/policy/diversity/initiatives/ethnic/page_42663.html