

Engineering Professors' Council

Response to Universities UK call for input to the Student Funding Panel: September 2014

The reforms to higher education aimed to put students at the heart of the system and ensure quality and value for money for students. The Panel will be considering the extent to which the reforms have affected the choices made by prospective students, and the impact on specific groups of students. The effects of the reforms on student expectations and the student experience will be considered, and whether the reforms have delivered a system of support that maximises participation in higher education.

Please provide your views and supporting evidence on the following questions.

1. Does the current student fees and loan system in England deliver value for money for students?

A poll of our members produced an evenly divided opinion on this question.

In absolute terms, the fees charged for engineering courses at UK universities represent good value in that these do not reflect the true costs of delivery, particularly once the high contact hours and high capital equipment costs are taken into account. (The Engineering Professors' Council estimated to be in excess of £12k per undergraduate student in a piece of work carried out in 2013).

However conversely, it was noted that compared with other similar courses internationally, fees are relatively high - typically double those in mainland Europe, with only the US being comparable so students may understandably perceive them to be relatively poor value for money.

It should also be noted that it is not the *system* that delivers value but the level of fees paid by the beneficiary compared with the experience they receive.

While there seems to be emerging evidence that switching the responsibility for payment of fees to the beneficiary (albeit with government backed loan support) is having less of a negative impact on the choices of students from lower socio-economic groups than feared, this may change should the numbers of available apprenticeships increase significantly providing a real alternative choice. We are also still to see the true impact that the high levels of debt will have on the numbers of students going on to postgraduate study.

2. How have the reforms to higher education, taking effect in 2012-13, changed the factors that prospective students take into consideration when making their decisions about entering higher education?

There is some evidence that the introduction of the increased fees has focused students on employment opportunities post university and the anticipated earnings benefit accruing from attending university which has increased the proportion of university entrants choosing to study Engineering and other STEM courses. Overall, undergraduate student numbers in these disciplines are higher than prior to the introduction of the new fee regime.

3. What evidence exists to suggest that the reforms to the system have improved the quality of the student experience?

A poll of our members was unable to generate any concrete examples to evidence this.

4. To what extent is public funding effectively targeted at students with the greatest need of support from public funding?

No engineering-specific response.

The reforms to higher education have resulted in a shift from teaching grants to loans. This has resulted in a reduction in government borrowing, but the costs of higher education still have an impact on long-term public sector net debt. The Panel will be considering the extent to which the reformed student fee and loan system is sustainable to the public finances. Please provide your views and supporting evidence on the following questions:

5. Is the current student fees and loan system in England financially sustainable for government?

In general terms, the majority of our respondents considered the overall funding model to be unsustainable. However, when looking more closely at the specific issue of engineering provision, given the high rates of employment [not to be confused with employment after 6 months which is a misleading metric for engineering disciplines], starting salaries and career earnings of engineering graduates, then the proportion of students failing to hit the earnings thresholds for repayment, or achieving sufficient earnings to repay the debt in full within the repayment window (and hence RAB charge) would be expected to be small in comparison with disciplines with lower rates of employment and career earnings. Under the current regime, of course, the Government cannot manage the RAB charge on a discipline by discipline basis.

6. To what extent does the current system reflect the most appropriate mix of teaching grant and subsidised loans to ensure long-term fiscal sustainability?

UK engineering departments remain highly dependent on the teaching grant element of funding provided by HEFCE for high cost subjects (Band B) and strategic and vulnerable subjects (SIVs). In reality, the differential between high cost subjects such as engineering and classroom based subjects is considerably larger than the remaining grant element. In a simple unregulated market the universities would charge a higher fee for higher cost courses, but this risks reducing student numbers in areas which are economically important for the UK and in which many decades of investment have been made to build. In the absence of more funding for the grant element (unlikely in the current fiscal climate) it will be necessary to look at other mechanisms by which this imbalance might be managed.

7. What will the impact be of lifting the cap on student numbers on the sustainability of the public finances, assuming there are no other changes to current policy settings?

90% of members responding to our survey felt that lifting the cap on the current system risked making the system unsustainable by exceeding the physical capacity limits of current infrastructure and damaging student experience and increasing financial risk (see Q 10).

8. The RAB charge comprises the interest rate subsidy and the cost of loans that are not recovered. Are actions necessary to reduce the RAB charge?

The RAB charge can only be reduced by physically reducing the numbers of students in the system OR de-risking the system – i.e. increasing students' ability to become high earners, quickly, with some predictability. The greater the uncertainty in the system, the higher the RAB charge must be.

The large majority of our members felt that some action needed to be taken to reduce the RAB charge. It was noted that the current system effectively penalises those who repay their loan quickly and in full through higher earnings and might potentially encourage more students to study in areas in which the likelihood of economic return was low in the full knowledge that this was risk free in terms of loan repayments (which would eventually be written off). This was seen as a fundamental flaw in the current system, and alternative models such as the funding system in the Netherlands and Germany cited as preferable alternatives. The point has already been made that this issue is less problematic for engineering than many other disciplines due to the higher earnings potential.

The reforms to higher education aimed to deliver a strong, financially sustainable and high quality higher education sector. The Panel will be considering the extent to which the reformed system has resulted in increased resources to higher education institutions, whether challenges have arisen in relation to implementation of the reformed system, and the extent to which the sector remains diverse and able to meet the needs of a wide range of learners. Please provide your views and supporting evidence on the following questions:

9. **Does the current student fees and loan system in England allow and encourage universities to support high quality teaching and deliver an outstanding learning experience for students, which is financially sustainable?**

No specific engineering response.

10. **To what extent does the reformed system allow and encourage institutions to access resources to grow their student numbers?**

Given that engineering is one of the most capital intensive subject areas to deliver, this is a particularly acute issue for our disciplines. Exceeding the physical capacity of the current infrastructure will damage the quality of the education provided. In many engineering disciplines institutions are at or close to the physical capacity limits of current buildings and labs.

Some capital funding is occasionally made available on a “bid” basis but universities cannot plan effectively on this basis so the current funding model assumes that institutions will primarily fund this out of assumed surpluses. However, given the rate of growth required to meet the demand for engineers in the economy, it is likely that a shortfall in capital funding availability will either force institutions to limit engineering numbers or to take on debt funding – an undesirable situation as it would be potentially the highest point of risk and uncertainty regarding the future of the current funding model (and hence also risks the ability to access debt funding).

Further, increasing capacity in university departments is more complex than simply making capital and revenue funding available. In a piece of research carried out by the Engineering Professors' Council in 2013, over half of its members said, even with the necessary capital and revenue funding, it would take 3-5 years to accommodate double the number of undergraduate students with a further quarter saying it would take 6-10 years, or even longer citing a range of additional supply and demand side factors.

11. **To what extent does the reformed system allow and encourage institutions to fund and pursue innovations in teaching, in order to deliver an outstanding learning experience for students?**

No engineering specific response.

12. **To what extent does the reformed system allow and encourage institutions to fund measures that widen access and improve participation in higher education?**

No engineering specific response.

13. **To what extent does the reformed system allow and encourage institutions to fund and pursue other changes to improve the student experience (e.g. employability of students)?**

Most respondents to the survey felt that the current system did not help institutions fund enhancements in employability. In the engineering context, it was noted that UK students could be placed at a disadvantage compared with our mainland European counterparts where it is common to take a 2 year Master’s level qualification following an undergraduate degree. Employers need highly developed technical skills and providing both these and the ability to apply them is challenging within

the constraints of a 3 or even 4 year degree. The funding constraints, particularly with regard to maintenance loans are a discouragement to students undertaking longer programmes/higher degrees.

14. What challenges, outside of the reformed system, face institutions in relation to long-term financial sustainability? Has the reformed system helped or hindered meeting those challenges?

The challenges in the system are much wider and more complex than simply the way in which universities receive their undergraduate funding. The following summarise the key issues briefly:

- While the tuition fees chargeable for HEU undergraduate students remains capped, the government's high cost subjects contribution remains vital to ensuring continuing investment in the necessary infrastructure and maintaining the mix and volume of staff needed to deliver programmes such as engineering.
- The income and expenditure account for a university engineering department is different to that of most other subjects. The higher costs per student in engineering (and the other lab-based sciences) are driven by higher student contact hours, the need for technical support, the need for equipment and consumables and the need for on-going ("plan-able") investment in equipment and infrastructure. The latter has been impacted significantly recently owing to the perturbation and uncertainty in the system. The substantially different income mix is driven by a substantially higher proportion of research funding in engineering – and this is true across all types of university. Research and teaching arguably being even more inextricably linked than in other subjects because engineering education must occur in context of industrial application and industry expects graduates and researchers to be working with the latest tools and techniques (and developing new ones). The ongoing ring-fencing of public funding into "research" and "teaching" funds is unhelpful in this regard – especially in relation to long term equipment and infrastructure planning which, over the long term impacts the student experience detrimentally.
- Further, the proportion of students from outside the EU is substantially higher in engineering than for other disciplines. Overseas students are essential to the viability of Master's programmes... and by extension the training of Chartered Engineers and the pipeline of future engineering academics. The changes to the visa regulations have been unhelpful and there is now a worrying trend is emerging, particularly at postgraduate level with a fall in both the numbers of UK students and those from outside the EU. During the last 2 years for which data and available there has been a fall in the numbers of students studying for a higher (taught) degree across all subjects but this seems to be becoming particularly marked in engineering and technology. It is hard to say whether this will turn into a long term trend but with the uncertainty surrounding funding support for higher degrees and increasing student debt, it seems unlikely that we will see the growth that's needed to support the Industrial Strategy.
- There also seems to have been a reduction in employer-funded postgraduate engineering students in recent years. The majority of UK domiciled postgraduate (taught) students receive no financial support for their studies: the proportion for all subjects (excl. engineering and technology) who receive no financial support has remained fairly stable over the last 5 years, at around 63-64% but rising to 66% in 2012/13, having seen employer funding reduce from 11% to 8% over the period. The situation for UK domiciled engineering and technology students studying for higher degrees has changed more markedly over the period, however, with the proportion of un-funded students rising from 56% over the period, to 63% and the proportion funded by industry or their employer decreasing from 17% to 14% in 2012/13.

15. How have the reforms to higher education in England affected the funding environment for institutions in the devolved administrations?

No engineering specific response.

16. Please outline your proposal for reform of the current system (it may focus on one particular aspect of the system or be more broad) or suggested model of student finance. Please provide details on the objectives for students, government and institutions that your proposal seeks to achieve.

Most respondents to our survey would prefer a return to the maintenance and tuition fee grant system, arguing that once the impact of RAB charges and the fees increases have been factored in the true cost to the Exchequer may not be very different. However we recognise that this is probably politically unlikely.

Regarding engineering specifically, we feel that the combination of the quasi market system currently operating with external fees cap and/or student number controls is particularly problematic for our disciplines – for which the costs are high compared with most other subjects but the income differential inadequate to compensate.

Whilst we would not wish to see any loss of institutional autonomy, government and its agencies have a clear role to play in putting in place measures which will mitigate some of the more adverse effects of a marketised system – for example as has been demonstrated through OFFA agreements. In this case we would suggest that some similar mechanism be considered to help institutions meet key national and societal needs.

We would also encourage the debate to be widened to include how postgraduate study is to be funded.

It seems that Government preference is to encourage banks to offer greater provision to postgraduates rather than offer a Government-backed loan scheme. But here lies a clear case of market failure, particularly in the current environment, with banks having been told to “sharpen up their act” when assessing individual risk. Banks lack information on the credit history of the majority of individuals wishing to move on to postgraduate education and so will regard them as poor credit risks, regardless of their earning potential. We therefore suggest the following:

Extending a loan scheme to postgraduate students, although on different terms to the Government-backed undergraduate scheme or the traditional bank lending model. The risk-adjusted interest rate at which loans are offered (and indeed whether they are offered at all) is dependent on the distribution of earnings potential of the student cohort it supports. This is clearly difficult to calculate for a mixed cohort of disciplines and levels of attainment and so high risk and expensive. However, if knowledge of the student cohort it supports and their potential earnings profile could be improved – for example, either by creating funds (or at least a commitment to underwrite the risk) to support particular disciplines and levels of attainment by consortia of organisations who have an interest in creating pipelines of employable talent, the risk and hence the charge could be brought down. It is therefore suggested that consortia of businesses could underwrite the schemes (see HEFCE Postgraduate Support pilot scheme – Cranfield University/Prodigy Loans). Individual employers would have the option of paying off the loan for their employees.

Further, employers sponsoring students by meeting part, or all, of their fees (or paying off loans) could be offered tax credits and/or the opportunity to pay lower national insurance contributions for those employees.