

HIGHER EDUCATION TUITION FEES

Institution of
**MECHANICAL
ENGINEERS**

Major changes to the higher education (HE) funding system in England will be implemented from September 2012. Annual tuition fees rise to a £9,000 maximum, with fees due on entry to university. Most students will fund these through a Government-underwritten loan. Fee levels will depend on UK country of domicile and of study.

The Institution is concerned that the nature and scale of the changes being implemented could:

- Reduce the number of students applying for engineering undergraduate courses in England, at a time when we need to encourage more applications;
- Reduce the proportion of undergraduate engineers pursuing the entry-standard MEng degree; and
- Reduce the proportion of disadvantaged students studying engineering.

The Institution recommends that:

- Government links its HE policy to its plans for economic growth, through varied student contributions to tuition fees in defined categories that recognise relative economic return and long term value to the economy;
- The Government should introduce a system to progressively write off student debt for students with degrees in strategically important and vulnerable subjects and who achieve agreed professional qualifications in a related occupation;
- The forthcoming all-age career service be specifically tasked to identify and address the concerns that less-advantaged school-leavers have about university study;
- Government underwrites university engineering departments for a period of three years to ensure continuity of provision while a potentially turbulent situation beds down.

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INTRODUCTION

From September 2012, the Government's university teaching grant will be cut in England. Some will remain for higher-cost subjects and certain strategic and vulnerable subjects, including engineering. To cover this, the maximum annual tuition fee that universities can charge will rise to £9,000, with caveats regarding bursaries. Fees will be due on entry to university, although most students will fund these through a Government-underwritten student loan. Loans will be repaid from post-graduation earnings at a set rate of 9% of earnings over £21,000 (**Table 1**).

Many universities^[1] will charge £9,000, or close to it, for some or all of their degrees, despite the Government originally 'insisting that the £9,000 fee would be exceptional'.^[2] The view seems to be that charging significantly less than the maximum allowable fee sends out negative signals about quality.

FEE VARIATION WITHIN THE UK

In 1998, the Teaching & Higher Education Act introduced a uniform up-front HE tuition fee of £1,000 payable by students across the UK.

In England this was replaced by deferred fees of up to £3,000 a year from 2006/07. From 2012/13 England-domiciled students can be charged up to £9,000, wherever they study in the UK. In Scotland the graduate endowment, a post-graduation student contribution, was introduced after devolution. Students domiciled in Scotland and studying at Scottish universities now pay no tuition fees. The Welsh Assembly kept the UK Government cap on tuition fees. While the UK Government replaced maintenance grants for living expenses with student loans in England, the Welsh Assembly re-introduced grants for Welsh students studying anywhere in the UK. The current UK situation is summarised by UCAS^[3]. International students have always paid a premium rate for tuition fees and the changes do not affect this. EU legislation governs the amount that universities in EU member states can charge students from other member states.

Table 1: Salaries and typical repayments

| Salary | Amount of salary from which 9% will be deducted | Monthly repayment |
|---------|---|-------------------|
| £25,000 | £4,000 | £30.00 |
| £30,000 | £9,000 | £67.50 |
| £35,000 | £14,000 | £105.00 |
| £40,000 | £19,000 | £142.50 |
| £45,000 | £24,000 | £180.00 |
| £50,000 | £29,000 | £217.50 |
| £55,000 | £34,000 | £255.00 |
| £60,000 | £39,000 | £292.50 |

Source: www.shu.ac.uk/study/ug/fees-and-funding.html

COSTS AND DEBT

The average student tuition fee in England from 2012/13 will be £8,509^[4]. The average actual cost per student will be £7,881 once fee waivers and university financial support are included^[5]. In an Institution survey, 89% of engineering academics indicated that their department would be charging £8,500 or more from 2012, with 64% charging £9,000.

Estimates of the effect of tuition fee increases on the student debt after a three-year degree in England vary significantly between about £40,000^[6] and £59,100^[7]. A £40,000 debt could require repayments of between £58,000 and £98,000^[8].

EFFECTS ON STUDENTS

Fears about fewer applications to university did not materialise when fees rose in 2006. The scale of the current change is, however, much greater. Only after the final applications deadline will the effects of the changes on demand for places at university be known.

Demand for engineering degrees is growing^[9]. Feedback shows, however, that 76% of engineering academics expecting UK-domiciled applicants to reduce following increased fees, with 11% expecting numbers to 'greatly reduce'. One survey^[10] suggests that 51% of current students would have been put off entering university with fees at the 2012/13 level. The BBC^[11] found 10% of prospective students in England being put off university by increased tuition fees. Early data from UCAS (**Table 2**) shows reduced UK-domiciled university applicants for 2012/13, notably for those domiciled in England. This data also shows that at this stage applications for engineering are only 3.1% lower than 2010^[12].

Table 2: UK nations' applicants by domicile as at 19 October 2011

| By UK country | 2011 | 2012 | Diff (+/-) | Diff (%) |
|------------------|--------|--------|------------|----------|
| England | 52,876 | 46,499 | -6,377 | -12.10% |
| Northern Ireland | 1,519 | 1,321 | -198 | -13.00% |
| Scotland | 2,832 | 2,497 | -335 | -11.80% |
| Wales | 2,186 | 2,004 | -182 | -8.30% |
| Total | 59,413 | 52,321 | -7,092 | -11.90% |

Source: UCAS

Alternatives to HE could become more appealing. Undergraduate study in the USA becomes more attractive to some students, as the difference between USA and English tuition fees reduces^[13]. With tuition fees in England increasing, EU undergraduate degrees taught in English become more popular^[14]. UK students are charged at the same, or similar, rates as students from the host country^[15]. It should be remembered, however, that not all degrees have parity with other member states. Similarly, apprenticeships could become more attractive to those keen to enter engineering while avoiding debt.

Some academics suggest, however, that engineering might fare comparatively well, with prospective students being attracted to its employability and a lifetime earning premium of £220,000^[16] to £245,000^[17] compared to A-level qualified school-leavers.

EFFECTS ON UNIVERSITIES

Higher fees are likely to reinforce the customer/supplier relationship between students and universities. UK universities are well respected, but pressure for *demonstrable* high quality will rise along with student fees. University education will need to be increasingly relevant and innovative. Universities could use the fee changes as an opportunity to ensure the 'attractiveness and relevance' of their programmes through a higher profile for learning & teaching excellence and more creative delivery. Universities should not rely on the 'strategic importance' of engineering to draw in students.

Even temporarily reduced student numbers could see universities reducing capacity, leading to redundancies, departmental mergers or closures. Increased competition for students could exacerbate this; 89% of engineering academics believe this will feature in HE in the future. Some universities may also lose out as the Government allows open competition for school-leavers achieving AAB, or higher, at A-level. One estimate is that^[18] 49 universities across England are at 'high financial risk from the Government's plans'. Effects on engineering departments could prove difficult to reverse to accommodate resurgent application levels.

EFFECTS ON THE MENG

The academic standard for entry to the engineering profession as a Chartered Engineer is the MEng degree (a four-year undergraduate Master's degree) or BEng (Hons) plus a Master's. The MEng in England, Wales and Northern Ireland takes four years of full-time university study, while in Scotland it takes five years. The MEng is increasingly supported by UK employers and acknowledged throughout Europe as a Bologna Accord compliant second-cycle degree. Potential MEng students could choose a BEng (Hons) to reduce their potential debt by up to £9,000 plus living costs. This could lead to a noticeable increase in the number of graduate engineers who need to undertake further study to qualify for Chartered Engineer.

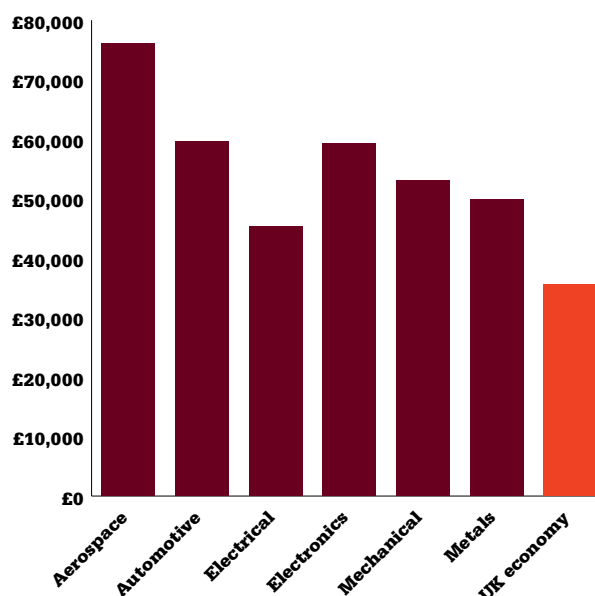
EFFECTS ON WIDENING PARTICIPATION

Engineering is under-represented according to certain diversity measures^[19]. Under-representation among lower socio-economic groups in particular could be exacerbated, if economically disadvantaged applicants are put off university by high tuition fees. Driving this could be a 'fear factor' among those unused to large long-term debt. Even with the access agreements negotiated by OFFA, the average tuition fee per student in 2012/13 will be £7,881; added to this will be maintenance loans which, in 2009/10, averaged £3,590^[20]. The majority of engineering academics (70%) believe that the fee changes will reduce applications from those with poorer backgrounds. Academics in post-1992 universities were particularly concerned about the impact of higher fees on widening participation, so any decline in participation of poorer students could be more acute among the 'top' universities.

IS ENGINEERING A SPECIAL CASE?

Shortages of UK graduate engineers^[21] are widely expected at a time when we need more engineers to help with economic growth, to rebalance the economy and to help meet our carbon reduction commitments. The Government's *Plan for Growth*^[22] seeks to rebalance the economy by placing productive industries in a more central role. Investment in HE across all the UK nations should deliver the skills to support Government growth plans. Investment in engineering skills offers significant economic returns. The UK average Gross Value Added (GVA) per employee is £35,500: engineering and manufacturing employees produce between £45,300 and £76,100^[23]. Engineering is recognised as a Strategically Important and Vulnerable HE subject. Student funding mechanisms must not dampen enthusiasm for engineering as a subject, a degree or as a career; equally, they must reduce the capacity of HE to provide high-quality engineering education.

Figure 1: Gross Value Added (source Semta)



CONCLUSIONS

The changes in fees allow the Government to pass on to students the share of HE tuition costs that they currently bear, with England-domiciled students particularly disadvantaged. This will result in significant personal debt for graduates.

The Institution is concerned that the nature and scale of the changes being implemented with effect from 2012/13 could:

- Reduce the number of students applying for engineering undergraduate courses in England, at a time when we need to encourage *more* applications;
- Reduce the proportion of undergraduate engineers pursuing the entry-standard MEng degree; and
- Reduce the proportion of disadvantaged students studying engineering.

Demand for graduate engineers is predicted to rise. Hence any reduction in the number of applicants for engineering degrees could have significant implications for universities and for the economy as a whole. Investment in HE should support Government plans for economic growth. Engineering is *vital* to our future, health, wealth and security and should be prioritised within HE.

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- ³ www.ucas.com/students/studentfinance/
- ⁴ Every institution wishing to charge over £6,000 a year has had to get an access agreement approved by The Office for Fair Access. The agreement aims to ensure that universities which charge a premium price have a yearly intake that represents the national population.
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