February 2017

Department for Education

Accelerated Degrees Government Consultation

Written (questionnaire based) response on behalf of the Engineering Professors' Council

GENERAL Consultation Question

Are there any other technical features of accelerated degree courses that we should take into account for the purpose of new fee arrangements?

Yes / No

- The EPC welcomes the flexibility to enable providers to offer accelerated degrees should they choose to do so.
- However, we find the proposals do not acknowledge the diversity of the sector. This renders them limiting for some HE subjects, in particular for Engineering, which students commonly opt to study for longer periods and at higher levels to take them closer to registration as a professional engineer (which is internationally recognised).
- The Government urgently needs to address whether accelerated degrees are appropriate in all disciplines.
- We also find the research which informs the proposals to be limiting and not based in realities relating to STEM subjects. In particular, in Engineering there are other barriers to offering accelerated degrees that are more limiting than the fee cap.
- We have concerns that there will be a problem with parity of esteem between accelerated and traditional degrees (especially in engineering). This could undermine the integrity of all degrees as an assurance of quality.
- While we have no objection to accelerated degrees in principle and welcome new educational models, the EPC is concerned that, in practice, there is very limited demand for shorter three-year degrees in Engineering and that the significant challenges to quality in introducing them are disproportionate to any likely benefit.
- 1. Length of first degree course and variation in typical length of course by subject.
 - 1.1. The EPC notes that the consultation explicitly refers to two-year undergraduate accelerated degrees typically delivered over three years. The proposals are not yet suitable for many Engineering courses which last for 4 or 5 years.
 - 1.2. HESA data shows that first degree Engineering students are nearly twice as likely as those studying non-Engineering subjects to be studying for between three and four years, and

more than four times more likely to be studying for between four and five years. Fewer than 30% of first degree Engineering Students are on full-time courses of up to 3 years¹.

- 1.3. There is no evidence of demand for shorter courses in Engineering. Given that so many Engineering students choose to study for longer, not shorter, than usual for their first degree, there is unlikely to be either significant supply or demand in Engineering.
- 1.4. Among the challenges already faced by students in Engineering is their preparedness in terms of Maths and Physics. Many undergraduate Engineering courses provide some foundation-level study in the first year to ensure all students are able to meet the needs of their course.
- 1.5. It is also increasingly common for Engineering degrees to add a complete foundation year to enable recruitment at 18 of those students not already holding the pre-requisite Maths (and, to a lesser extent, Physics) qualifications. If we are to successfully increase participation in Engineering, this approach is essential.
- 1.6. Accelerated degrees would make this less possible meaning that entrants would need to be more assured in these skills to start with. This may mean that either the demand for such courses would be limited or that the courses would fail to deliver an adequate education.
- 1.7. Further, there is indeed an argument that courses, and Engineering courses in particular, need to be longer not shorter to allow a wider education, not a narrower or quicker one. This could be through an approach more aligned to the Liberal Arts, where breadth of study in the main part of the degree is supplemented by a specialism in an additional, fourth year. This approach is not unusual on the global stage and is, in fact, common within the USA, the UK's main HE competitor when it comes to international students.
- 1.8. While we agree that longer courses would require additional safeguards and separate arrangements, we recognise that these are not covered by this financial policy at this time.
- 2. Level of study and variation in typical level of study by subject.
 - 2.1. HE is not homogenous. Engineering students are also much more likely to be studying towards a higher degree or other postgraduate level course on a full-time basis than their counterparts across other subjects.
 - 2.2. Existing models of accelerated Engineering degrees are at a higher level, where some universities are now offering Engineering courses, which combine both the bachelors and masters into a four-year long MEng course (as opposed to a three-year bachelors course followed by a two-year masters course).

¹ Full Person Equivalent broken down by Level of study (detailed6way) and Expected length of study vs Mode of Study(basic), JACS subject areav3 and JACS principal subject v3. The data is filtered on Academic Year, which keeps 2015/16.

- 3. A single, financial, barrier to accelerated degrees in Engineering is neither evidenced nor believable.
 - 3.1. The research highlighted purports to show that the main barrier to increased representation of accelerated degrees in the sector is financial, but Engineering was not represented in the research.
 - 3.2. The Institute for Employment Studies research commissioned by the DfE into the current delivery of accelerated courses showed that the courses providers were accelerating were very professionally rooted. Most accelerated provision was noted in vocational subjects such as business and law and the annual fees were the same as for a three year degree.
 - 3.3. While there were few examples of accelerated degree courses in STEM subjects, some providers said they could only investigate shorter courses in some STEM subjects subject to regulatory requirements. Engineering accreditation is rigorously regulated to an international standard and may not lend itself to accelerated degrees. While it could be left to providers to decide whether they should offer courses that do not lead to accreditation, the EPC would oppose this as it would impose an unfair burden on prospective students to understand the significant difference in offering and outcomes.
 - 3.4. The consultation acknowledges that accelerated degrees are not suitable for all courses (where you need the additional time to develop skills and knowledge). No Engineering case studies were provided in the research and it was reported that it may be more difficult to 'accelerate' science subjects.
 - 3.5. There may be other disciplines where a two-year accelerated degree would be appropriate but that does not mean to say it would be appropriate for every discipline. The Government urgently needs to address whether accelerated degrees are appropriate in all disciplines. This is a Government responsibility rather than the responsibility of individual providers, which may otherwise experience market pressure to lower standards.
 - 3.6. The EPC's position is that accelerated degrees are not likely to be appropriate in Engineering.
 - 3.7. In particular, there are other barriers in Engineering to offering accelerated degrees that are more limiting than the fee cap (see below).
 - 3.8. There is a clear difference between STEM subjects that progressively build on students' knowledge (Engineering) and those that progressively expand student knowledge (Business/Law) which demand a different approach to teaching and learning.
 - 3.9. Engineering knowledge gained through classroom and laboratory sessions is practically applied to Engineering situations, for example, through individual and group projects. Compressing the teaching time may not allow sufficient time for the student to learn, understand and apply their knowledge.

- 4. Total volume of learning content will be maintained by increasing the number of weeks of study in each year. Study is likely to run over the summer, with shorter academic breaks at other times.
 - 4.1. The pace of learning week-on-week for a student is likely to be broadly the same as a standard degree, compounded over two years. The EPC is concerned that study over an accelerated period would not allow Engineering students to accumulate and develop a proper understanding of the subject such that it prepares them for a career in Engineering.
 - 4.2. Engineering has the second highest contact time of all HE subject areas (approximately 22 hours), outranking most other subjects (with the exception of health subjects and the physical sciences). On average, Engineering courses involve a workload of 30 hours per week. That leaves Engineering students with far less time than most students to complete individual and group project work, as well as self-study that is essential for the students to understand and consolidate the material they are taught. There is no capacity to add additional hours to address the following concerns.
 - 4.3. The project briefs for individual and group projects are often issued at the beginning of the summer to enable students to invest time in researching their topics and outline a project proposal. Continuous teaching would render this approach impossible and would probably reduce the standard of the projects. This would have a downstream impact on employability, accreditation and professional registration.
 - 4.4. Some Engineering courses include a year (or less than a year) in an industrial placement. It would be impractical to condense three-year Engineering courses that include a placement year into two years (or four years into three). In particular, the removal of summer industrial placements (not part of "with industry" year-long placement courses) would impact negatively on career prospects. These industrial placements are also typically highly valued by industry.
- 5. Parity of qualification outcome is unknown.
 - 5.1. Notwithstanding the credibility issues already highlighted, the claim that that an accelerated degree will lead to an identical qualification to equivalent standard length degrees is unsupported by evidence.
 - 5.2. While the substance and calibre of learning required for qualification may be identical, the maturity of knowledge applied over time would not. In addition, the development over time of skills such as problem-solving and critical thinking would be significantly limited. These are critical skills our engineers need to UK meet the economic and social challenges of the Industrial Strategy.
 - 5.3. Further investigation would be needed to establish if it were possible to meet the accreditation standards within an accelerated period. Fast-track students must NOT constitute a pilot study to alignment of accelerated Engineering degrees with accreditation, as this could lead to career-long disadvantage.

PROVISION Consultation Question

Do you agree that an annual fee cap set initially at the standard rate plus a 20% uplift is the right amount to incentivise wider provision of accelerated degrees?

Yes / No

- The EPC has concerns that, while the new arrangements should be provider neutral, reflecting the level playing field for providers created by the new regulatory framework for HE, they are not subject neutral, which will in turn affect the providers to whom a financial incentive is of interest.
- Research suggests that the yearly cost of delivering a two-year accelerated degree course is higher than the equivalent three-year course. Depending on the outcome of the consultation and the fee level set, this could leave universities short on funding to deliver the cost of delivery of Engineering courses.
- In Engineering, the costs of offering accelerated provision are likely to outweigh the expected benefits or risks, and this is likely to drive lower likely supply of these courses in Engineering.
- The impact on teaching staff, research, buildings and facilities would be greater for Engineering than anticipated elsewhere in the sector.
- 1. The EPC welcomes the flexibility to enable providers to offer accelerated degrees should they choose to do so. However, we note that there is no evidence of a need for shorter Engineering degrees, including from those who might choose to participate in Higher Education that otherwise would not have done.
- 2. The EPC strongly suggests that the additional in-year fee revenue would NOT cover the extra costs associated with accelerated provision, which will result in a lower likely supply of these courses in Engineering across all providers.
- 3. Any providers that might offer accelerated courses would be likely to achieve this only by cutting costs through reduced facilities or contact time. The relatively high research activity in Engineering departments means that productivity gains from shorter academic breaks would either be negligible or would be at the expense of other activity that is strategically important to both the provider and to the wider economy.
- 4. It is unlikely that that students would face a genuine choice of traditional or accelerated degree courses across the full range of undergraduate courses under the proposals outlined.
 - 4.1. The HEFCE Pathfinder Projects costing study² found that "on an indicative basis, the cost of delivering a two-year accelerated degree could be between 6.5% and 11% more per year than a three-year standard full-time degree." The proposals also outline that accelerated provision is cheaper overall than the total cost of a conventional three-year equivalent degree, but more expensive on an annual basis. There is no evidence that supports this claim in relation to Engineering degrees.

² http://www.hefce.ac.uk/media/hefce/content/pubs/indirreports/2011/RE,0311/rd03_11.pdf

- 4.2. Under these proposals, the EPC understands that the HE provider would receive additional funding to support the higher costs of accelerated teaching in each year, but 20% less overall for the provision of the course on a per student basis. We expect this would have a detrimental effect on outcomes.
- 4.3. Degrees in Engineering are of higher cost than many other degrees and whilst they have a premium attached to them, many HEIs cross-subsidise these subjects and seek alternative finance to expand Engineering departments due to the capital costs.
- 4.4. Engineering laboratories are expensive to run, particularly with technology changing rapidly and many Engineering departments currently struggle to expose students to the latest technology. A reduction in fee income to invest in laboratory equipment would exacerbate this problem.
- 4.5. We note that EEF, The Manufacturers' Organisation, is due to be publishing a paper on the cost of delivery of Engineering courses in in the near future.
- 5. The EPC is concerned that, while the new arrangements should be provider neutral, reflecting the level playing field for providers created by the new regulatory framework for HE, they are not subject neutral, which will in turn affect the providers to whom a financial incentive is of interest.
 - 5.1. We recognise that the introduction of accelerated degrees may allow some providers to exploit their staff assets to teach year-round, which could be seen as an efficiency win for universities.
 - 5.2. Increasing the number of teaching weeks assumes that academic staff have the time to do this. Given the high contact hours already outlined in Engineering, adding additional teaching will either be done at the expense of research and knowledge transfer, or/and will require additional staff to be employed, both at a cost.
 - 5.3. Further, Engineering tends to be a highly research active discipline, even in institutions which are not so research intensive in most disciplines. The role and value of university research is widely recognised, including by government, for its regional and national economic contribution. Academic staff contribute to this through pure and applied research and knowledge transfer. Engineering research is vital to the Government's Industrial Strategy.
 - 5.4. The logistics of delivering an accelerated year-round Engineering degree may be impractical in most cases. Engineering departments are unlikely to want to sacrifice dedicated research hours to teaching for the purpose of delivering accelerated degrees.
 - 5.5. We therefore expect that many Engineering departments, not only at research-intensive universities, may not offer accelerated degrees due to the increased hours of teaching required.

TAKE-UP Consultation Question

Do you agree that a 20% reduction overall for students, in tuition fee and maintenance loans, would incentivise wider take-up of accelerated degrees by students?

Yes / No

- Broadly, allowing accelerated courses may do no harm, but in Engineering the take-up by students to study them is likely to be very limited.
- While the target audience is those who may not otherwise choose to pursue higher education, this group is either unlikely to be able to access undergraduate Engineering education without additional, foundation studies or to be able to access accelerated degrees as employer-sponsored CPD.
- Engineering graduates are more likely than their other graduates to pursue their discipline professionally. The exchange value of the accelerated degrees must be validated in terms of employer, education and accreditation credibility before accurate information to that effect can be provided to potential students.
- 1. We note the Government's target of 5% of the total undergraduate population over the next decade and for an additional 100,000 students to have studied on an accelerated degree over that same ten years.
- 2. We urge that further detail on these targets would encourage wider provision of accelerated degree courses and increased enrolment by students, based on suitability of discipline rather than stratify on the assumption that accelerated degrees are appropriate in all disciplines.
- 3. We note that the research presented suggests that accelerated degrees particularly appeal to students who may not otherwise have chosen to pursue higher education, such as mature students who want to retrain and enter the workplace more quickly than a traditional course would permit, and those who do not take a traditional A-level route into higher education.
- 4. We have already discussed that those without a sufficiently deep grounding in Maths and Physics are increasingly commonly invited to complete foundation year to 'catch up'. This would require a longer course of study, not a shorter one, and would prohibit those wishing to study Engineering successfully from adopting an accelerated approach.
- 5. We are encouraged by the opportunities accelerated degrees offer for lifelong learning but suggest that, in Engineering, this will predominantly give mature students and existing employees another means of gaining a degree. Over half (56%)³ of manufacturers support existing employees through higher education and a many do not do so currently but would like to. This would provide the more flexible offer employers are often looking for as they would not lose an employee from the business for as long. EEF determine that this is particularly attractive for employers wishing to up-skill their workforce while giving employees a career-enhancing qualification. The EPC is fully supportive of this approach to lifelong learning in Engineering.

³ https://www.eef.org.uk/

- 6. Engineering graduates are highly likely to go on to a career in Engineering: the most recent data suggests that 71% of graduates who were in employment after graduating from a UK full-time first degree programme were working in an Engineering occupation.⁴ This compares to only around half in other disciplines.
- 7. Accurate, reliable Information about the suitability of an accelerated Engineering degree for the next step in education or professional development will, therefore, be pivotal to uptake.
- 8. We have previously commented that, without evidence that accelerated degrees will lead to parity of qualification, parity of readiness for work or further study, and parity of progress towards professional accreditation, this is unlikely to be the choice for our engineers of the future.
- 9. Finally, the EPC is concerned that the two-year fast track degree may not be cheaper for Engineering students, many of whom currently top up their income with seasonal work between semesters. Accelerated degrees will prohibit this practice. Given the high contact hours in Engineering, part-time work during term-time is already not an option in practice.

SAFEGUARDS Consultation Question

Should any additional safeguards and controls be in place as a proportionate and effective measure to ensure expanded provision of loans for accelerated degrees provide value for money to the taxpayer?

Yes /No

- The EPC perceives the biggest risk to be that of non-evidenced parity of esteem with equivalent traditional-length degrees. In particular, there is no evidence that accelerated degrees will attract the same exchange values as other degrees, particularly in Engineering where the development of skills, such as problem-solving and critical thinking, would be reduced.
- We would urge further work with employers, accrediting and registration bodies to check whether this is achievable, particularly in relation to industry placements and skills.
- The EPC calls for provision to be led by demand and financial viability, not mandated.
- 1. The EPC notes that it is expected that some HEIs, but not all, will offer accelerated degrees, in the same way that some, but not all, HEIs offer degree apprenticeships currently.
- 2. Further, this consultation assumes that it is up to providers whether to offer accelerated provision, so assume expected benefits or risks (e.g. students going elsewhere) must outweigh the costs of doing so.

⁴ The State of Engineering 2017

- 3. The EPC would be deeply concerned if the new fee arrangements were not successful in the Engineering discipline and "strong OfS leadership" translates to any form of coercion in the sector.
- 4. Longer courses, as are often the norm in Engineering, would require additional safeguards and separate arrangements, although we recognise that these are not covered by this financial policy at this time.
- 5. There is no evidence that accelerated degrees will attract the same exchange values as other degrees, particularly in Engineering where the development of skills, such of problem-solving and critical thinking, would be reduced.
- 6. We would urge further work with employers, accrediting and registration bodies to check that this is achievable. This should involve practical considerations as well as fairly and transparently managing the understanding and expectations of the quality of accelerated degrees in the wider community – in schools and amongst employers.
 - 6.1. For example, would future employment and earnings prospects of a degree be the same for a student on an accelerated course as they are for a standard course?
 - 6.2. Would accelerated degrees in Engineering be seen as the same as three-year degrees by employers and post-graduate selectors? For example, students would have less opportunity to accumulate extracurricular activities (e.g. summer courses, mobility programme, conferences, lab work, publications) in their portfolio.
 - 6.3. Why would an industry recruit from this programme when they might alternatively recruit from a conventional three- or four-year programme, after two or three years of academic study, from which they might benefit a great deal more?
 - 6.4. Work-related learning is of particular importance to Engineering qualifications, particularly placements or time in industry. Industrial placements help Engineering students to consolidate their degree studies and produce graduates who have a more mature understanding of Engineering in application. These placements, whether they take place during the long summer vacation or a full year, could not take place in shortened accelerated degree programmes.
 - 6.5. Given that accelerated degrees are unlikely to allow as much possibility for this, the EPC is concerned that it will undermine the learning experience of those graduates and thereby undermine the reputation of accelerated degrees in general.
 - 6.6. We note that there is a greater risk of non-completion among students from backgrounds that are traditionally under-represented in HE. This could be mitigated, in part, by the smaller drop-out window presented by accelerated degrees, but it should be noted that non-progression from first to second year accounts for the majority of drop out and that failure to balance studies with other demands is a significant cause. Any mitigation may be more than outweighed by greater risk.

PRACTICAL CONSIDERATION Consultation Question

Are there any additional practical considerations we should take into account as we develop our final regulations to support accelerated degree course provision?

Yes / No

Summary

- Engineering degrees are expensive to run and usually cross-subsidised by the provider. The EPC strongly suggests that the additional in-year fee revenue would NOT cover the extra costs associated with accelerated provision which will result in lower likely demand for these courses in Engineering across all providers.
- 1. Engineering HE courses are expensive, where the tuition cost of offering a degree in Engineering typically outstrips the funding available.
- 2. At present, Engineering courses are systematically cross-subsidised in universities by other degree programmes, international student fees and/or research funding.
- 3. The EPC strongly suggests that the additional in-year fee revenue would NOT cover the extra costs associated with accelerated provision which will result in lower likely demand for these courses in Engineering across all providers.

PROTECTED CHARACTERISTICS Consultation Question

Should the Government be aware of any other issues relating to the way in which the proposed tuition fee policy for accelerated degree courses will affect any of the protected characteristics? If your answer is 'yes', please set out what steps in your view the Government might take to mitigate any negative impact.

Yes / No

- Women represent just 15% of Engineering & technology undergraduates and only 6% of the Engineering workforce.⁵ Genuine measures to increase participation from this cohort are actively sought and supported by the sector. The latest UCAS data shows that representation among females is growing slowly.
- The HEFCE pilot showed that these courses were particularly attractive to mature and BME students. Engineering has a good record in attracting certain ethnic groups and students from less advantaged groups. Black & ethnic minorities represent 24%⁶ of Engineering & technology undergraduates.
- 2. We have already commented that in Engineering, mature students will predominantly be recruited through existing employees as part of their CPD. The EPC welcomes this support to lifelong learning.

^{5 &}lt;u>http://www.raeng.org.uk/inclusivecultures</u>

⁶ http://www.raeng.org.uk/inclusivecultures

- 3. The EPC would draw the Government's attention to the gender gap in Engineering. Women represent just 15% of Engineering & technology undergraduates and only 6% of the Engineering workforce.⁷
- 4. Graduate outcomes data⁸ highlight one of the biggest gender gaps in Engineering and technology graduate earnings.
- 5. We note that continuous teaching arrangements may affect resits. We would expect increased failure rates among poor-performing students.

EMPLOYERS Consultation Question

Based on the policies set out in this document, do you agree that an accelerated degree has any specific merit in current or future potential employees? If your answer is 'agree', please set out any advantages you consider an accelerated degree-qualified graduate might have as an employee over their standard three-year degree equivalent.

Agree / Disagree

- We see the main advantage for employers as degree level CPD for their workforce. This is particularly attractive for employers wishing to up-skill their workforce while giving employees a career-enhancing qualification.
- The risk already outlined to graduates' industry experience is of concern. Work-related learning is of particular importance to Engineering qualifications, particularly placements or time in industry.
- 1. It is widely recognised that Graduate engineers are essential for the country's wealth creation and its infrastructure.
- 2. The EPC is aware that some manufacturers welcome accelerated degrees as widening the graduate talent pool. Given the shallow graduate talent pool from which manufacturers can recruit, any proposal that seeks to widen this pool may be generally supported, especially if it provides quicker and more flexible pathway for employers to recruit Engineering graduates.
- 3. Accelerated courses in some disciplines could also appeal to younger students with a drive to complete their studies faster for instance, to enter the graduate workplace as quickly as possible.
- 4. Accelerated degrees may also be attractive to international students who may prefer a shorter, more intense period of study abroad. However, these students are less likely to enter the UK labour market.

⁷ http://www.raeng.org.uk/inclusivecultures

⁸ https://www.gov.uk/government/statistics/graduate-outcomes-by-degree-subject-and-university

- 5. Accelerated degrees give mature students and existing employees another means of gaining a degree. This offer is likely to be more attractive to mature learners and existing employees as this would provide the more flexible offer employers are often looking for as they do not lose an employee from the business for as long. It provides businesses within the sector with the chance to up-skill their workforce, giving their employees a career-enhancing qualification in an area designed to address specific skills demanded by the company.
- 6. There are already forms of employer-sponsored accelerated degrees in Engineering⁹: this model allows employee-students to gain a Bachelors degree in a two-year time frame. EEF determine that this is particularly attractive for employers wishing to up-skill their workforce while giving employees a career-enhancing qualification.
- 7. Graduates with industry experience are sought after by employers. Work-related learning is of particular importance to Engineering qualifications, particularly placements or time in industry. Accelerated degrees are unlikely to allow as much possibility for this thereby undermining the learning experience of those graduates and thereby undermining the reputation of accelerated degrees in general.
- 8. We understand that some employers have raised concerns that teaching over the course of the year may take away opportunities to undertake industry experience whether through a longer-term placement or a summer placement.¹⁰
- 9. Finally, the EPC is concerned that a financial saving of circa £9,000 to the student is likely to come at a cost (to industry) of work-ready graduates in terms of the development of broader skills in terms of critical thinking, self-actualisation, teamwork etc.

OTHER Consultation questions (no answer prepared)

Do you agree that accelerated degree fees should be treated in the same way as other higher course fees for the purpose of access funding?

Yes / No

This means that proportion of costs goes to outreach activities. There should be a saving in retention activities as time risk is less.

Do you currently provide any form of accelerated degree course? If 'yes', please provide details of type of course, study pattern, current enrolment cadre.

Yes / No

¹⁰ http://wonkhe.com/blogs/for-accelerated-degrees-do-we-feel-the-need-forspeed/?utm_medium=email&utm_campaign=Monday%20Morning%20HE%20Briefing%20-%2011th%20December&utm_content=Monday%20Morning%20HE%20Briefing%20-%2011th%20December+CID_0e54cf7787c4f19aa3a403080a21f541&utm_source=Email%20marketing%20soft ware&utm_term=Do%20we%20feel%20the%20need

⁹ For example, University of Wolverhampton's employer sponsored Manufacturing engineering degree.

Based on the policies set out in this document, are you considering offering new or additional accelerated degrees when tuition cap uplifts are enacted? If your answer is 'yes', please set out what types of course and volume of provision you are considering.

Yes / No

Based on the policies set out in this document, are you considering applying for an accelerated degree when tuition cap uplifts are enacted? If your answer is 'yes', please set out what type of course and provider you are considering.

Yes / No

Have you been, or are you currently an employer of any graduates of accelerated degrees? If your answer is 'yes', please tell us about your employee – subject of degree, job role.

Yes / No