

Remaking Tertiary Education: can we create a system that is fair and fit for purpose?



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with Gerard Domínguez-Reig
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The Education Policy Institute is an independent, impartial and evidence-based research institute that aims to promote high quality education outcomes, regardless of social background.

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- School Performance and Leadership
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Foreword

The Education Policy Institute (EPI) is an independent, impartial, and evidence-based research institute which aims to promote high quality education outcomes for all, through analysis which both informs and influences the policy debate in England and internationally. On occasions, it will support and publish the work of other writers in support of this aim.

We are delighted to have contributed analysis to and be publishing Professor Wolf's latest research on the future of tertiary education in England. The analysis builds on her earlier report 'Heading for the Precipice', which highlighted the funding disparities between further and higher education. That gulf in funding has important implications for equity in educational outcomes.

This new research shows that, within higher education too, what is provided - and where - may be driven more by funding systems and social norms than the needs of our labour market, the characteristics of valuable training, or the interests of young people. The report exposes how the design of our education system may be creating excessive financial cost to the nation and to sub-optimal educational outcomes. In doing so, the study raises fundamental questions about the evidence base that underpins current policies for higher education funding and expansion.

Professor Wolf outlines an alternative to the current approach, and to the direction of travel embodied in legislation currently before Parliament. Her proposal for a more flexible individual entitlement to tertiary education and a national system of sub-degree tertiary awards should be seriously considered by policy-makers.

While the conclusions of this research are those of Professor Wolf, we are pleased to be supporting a piece of work which we believe to be rigorous, timely, and to have identified some significant challenges and opportunities for English education. I am grateful to Professor Wolf, and to the EPI's Peter Sellen and Gerard Domínguez-Reig, for their work on this report.

Rt Hon. David Laws

Executive Chairman, Education Policy Institute.

Executive summary

England's tertiary education system is larger than ever before. It is also, in its current form, extremely expensive, and set to become ever more so. **Students are incurring large debts, but so is the taxpayer.** The large majority of students will not, on current trends, repay their loans in full, and the burden on the Exchequer is set to be several billion pounds for each and every annual cohort of students entering university. The contribution of student loans to net government debt is forecast to rise from around 4 per cent of GDP today to over 11 per cent in 2040.

Our current system is also grossly unfair in the way it distributes resources. The UK now has an extremely high percentage of young adults qualified to degree level, considerably higher than the US, and 11 percentage points above the EU21 average. Around half of current 18 and 19 year old pupils in England go on to tertiary education. The opportunities offered to the other half are limited, shrinking, and grossly under-resourced in comparison. **Fundamental changes are needed to the way in which public funding operates at tertiary level, and are recommended by this report.**

The number and availability of **tertiary awards at sub-degree level have declined rapidly in England in recent years** in both higher and further education institutions. HNDs, HNCs and Foundation degrees make up a tiny proportion of tertiary qualifications, in absolute terms and compared to a generation ago. In a large number of other advanced economies, by contrast, such qualifications remain very popular and important and are an effective way of developing advanced technical and applied skills.

Tertiary awards form a tiny proportion of the education and training provided outside universities through the adult skills budget. **Tertiary awards account for less than 2 per cent of substantial qualifications being taken, and well under one per cent of all qualifications funded in the adult skills system,** and numbers have fallen sharply in the last two years. Spending for college-based courses through this budget has been in general decline since the early 2000s, and no real increases are predicted for the adult education budget. Moreover, courses for these learners are funded at a small fraction of the amount spent per learner in university degrees.

The overwhelming majority of courses and qualifications offered to adults outside universities are at very low levels. Very few are offered at level 3 (skilled craft) let alone tertiary levels (4 and 5). This is a direct result of the government's funding system for adult skills, and of the payment rules and incentives it creates.

Most of the sub-degree tertiary courses which do exist in England are either funded through the higher education budget (including via student loans) or paid for directly by students. **Most tertiary awards at sub-degree level are Business qualifications,** and very few are in engineering or other STEM fields. A concentration on Business awards is very evident among 'Alternative Providers' who do not currently hold their own degree-awarding powers.

Universities have mostly ceased to offer two-year degrees, which for a period were attractive as a source of government-supported expansion. They now have no financial incentive to offer short degrees, and are no longer restricted in the number of undergraduate places they can offer. Alternative Providers' offers are similarly predictable from and explained by the financial incentives they face, and if and when they become universities, they will almost certainly move away from sub-degree tertiary provision. **Without changes in the financing of tertiary education, we can predict a further decline in anything other than full university degrees at tertiary level.** This decline will be driven by government-created funding incentives, not by current or emerging labour market demands.

Government education policy is predicated on the argument that economic growth is higher the larger the number of people holding university degrees, and that this relationship justifies further university expansion. However, labour market data show that many graduates are working in non-graduate jobs, and that for many people, **a degree is not associated with earnings that are well above the non-graduate average**. Average future earnings vary enormously by type of degree, but also by institution. In some English universities, all degrees appear to have 'zero returns' compared to the average for non-graduates. Ten years after graduation, a quarter of those graduating in 2003/4 earned no more than £20,000 – a level at which, under the current student loan system, borrowers need not make any loan repayments.

Conversely, evidence from the period when such awards were common in England, and contemporary evidence from OECD countries where this is still the case, confirm that **sub-degree tertiary awards can have high labour market value**. They also tend to be cheaper, involving only two years of study.

The current system strongly encourages all higher education institutions to charge the maximum fee. In the university sector, price signals quality, so charging a lower fee than the prescribed maximum sends a negative signal. It also means fewer resources with which to supply a good education. For students, the current loan system means that a somewhat lower fee makes very little difference to how much they will repay and when, so it is rational to select by content and quality, not price. Highly variable returns to degrees, and periods out of the labour market, which are very common for women, mean that most people will never repay the loans in full. They will nonetheless all face high increases in their marginal tax rates when they reach specified earnings thresholds, and will carry large debts.

Further growth in the numbers of graduates is likely because the government has offered an open-ended commitment to fund an undergraduate degree for any home student that a university accepts, and there are no national entry requirements. Young people who might prefer to take a shorter tertiary course, or one more directly linked to the labour market are likely to take a full degree because there is no other credible and available alternative.

Current proposals to make it easier for institutions to become universities will accelerate this growth and encourage aggressive marketing, as has happened in other similar systems. There will be an increase in the number of loans where a substantial amount must be written off, especially since expansion will probably be concentrated among people with relatively low future earnings.

Estimates of the amount of the loan book that will never be repaid are very sensitive to small changes in assumptions. Changes in the economy have a large impact. As an example, if the Treasury's worst predicted GDP outcomes of Brexit occurred, real graduate earnings would be reduced for a limited number of years. That could increase the public cost of providing student loans to just one annual cohort of English undergraduate students by as much as half a billion pounds.

The cost of loans to students would be much reduced by making two year rather than three year tertiary awards. This would also reduce the cost to the taxpayer considerably, probably saving £6,000 in student loan subsidies for an average-earning student, and more than £10,000 for low-earners. The resources saved could be invested in a range of productive ways, including other forms of education. However, two-year tertiary courses will only be offered in sizeable numbers, and will only be responsive to the labour market and skill shortages, if the current funding system is altered.

A financial entitlement which is held by the individual, and can be used for tertiary education of any sort, whenever the individual wishes, would allow England to move away from the current dysfunctional system. Individual entitlements, which enable people to bank sums for the future, are

a necessary precondition for genuine price competition in a system where government underwrites costs. Under current conditions, students are offered one loan, tied to a degree, once. Publicly-supported institutions therefore have no incentive to offer anything other than degrees of maximum length at maximum permitted cost. If students held financial entitlements under their own control, institutions' incentives would change.

In order to reverse the decline in sub-degree provision, and encourage take-up of two year courses, the government must also act to recreate a **national system of sub-degree tertiary awards which can be offered in further education colleges as well as universities**. The contrast between the high take-up of loans for degrees, and the failure of Advance Learning Loans for FE-based learning, is in large part a result of there being no established national system of awards at levels 4 and 5. This is bad for individuals and for the country, and perpetuates the deep injustices of our current system, as well as its economic inefficiencies.

Introduction

Across the globe, human societies spend more on education, spend more time being formally educated, and employ more of their citizens to provide education, than ever before. Nowhere is this more obvious than in 'tertiary' education, the most rapidly growing sector of all, and the topic of this monograph.

Tertiary education takes place after, and assumes completion of, upper secondary education. 100 years ago, the vast majority of people left school in their very early teens, university enrolments were tiny and adults who were involved in education were overwhelmingly to be found in evening classes, often for basic education.

Today, in developed countries, completion of upper secondary education is the normal experience of the entire age cohort, and tertiary education is exploding. This is especially obvious with university enrolments. But tertiary education institutions also cover advanced technical and vocational education, leading, typically, to higher-level qualifications of a distinctive type. Globally these too have been growing fast.

Education also looms large for modern politicians in democracies and dictatorships alike. It does so because

- First, it is extremely expensive.
- Second, conventional wisdom stresses education's importance as a guarantor of prosperity and engine of growth. Politicians therefore treat education as a policy instrument of great importance.
- Third, an individual's education now makes a huge difference to her or his life chances. Formal qualifications are the gatekeepers to the entire labour market in a way that would have been inconceivable in the recent past. For example, in England at any time before the 1980s (when the GCSE was first introduced as a uniform secondary school qualification) it was perfectly normal for large numbers of young people to leave school with few or no formal certificates, and find jobs perfectly easily nonetheless.

Today, any government concerned with equalising opportunity, or incomes, or life experiences, will very quickly find itself focusing on education. When Theresa May announced in her first formal statement as Prime Minister that it was her 'mission to make Britain a country that works for everyone', she was expressing a standard, though laudable, aspiration for a democratically elected government.¹ And in the examples she gave of how Britain currently falls short in this respect, one third involved education, and the ways in which schools and universities fail to open doors for many of our citizens.

Britain is not, in fact, unusual in failing to offer all of its citizens anything close to an equally good education. As discussed further below, it shares broad trends with many other countries, and does far better than some on certain measures, far worse than some on others. Our politicians and media obsess over our rankings on international comparisons of student attainment but in fact, European countries cluster very close together in terms of absolute attainment, though they move up and down in terms of relative position. We have expanded higher education very fast in the post-war

period: so have other developed economies. And like every other country we find that entry to our elite institutions is dominated by children of the current elite.

Nonetheless, there are very serious flaws in our education system, which are specific to our country. These flaws are totally unnecessary, highly expensive, involve major misallocation of resources and are ruinous to equal opportunity. They relate to how we run and fund university and other tertiary education: and our tertiary education system should be added immediately to Mrs May's list. We have created, here, systems which are not merely highly inequalitarian but also financially ill-conceived, and demonstrably ill-suited to our labour market. These problems are a direct result of government policy and currently look set to get worse, not better.

This monograph concentrates on England, which is by far the largest of the country's education systems: but Scotland, Wales and Northern Ireland also have major problems at tertiary level.² Looking at England specifically, three factors stand out which, together, account for much in our current system, and for much of what is wrong with it. They are:

- Uniquely inchoate arrangements for providing both sub-degree tertiary and lower-level vocational and occupational courses.
- A university system which is unusually uniform in its institutional structures, and which lacks incentives to generate diverse or innovative approaches.
- A funding system which encourages expansion, generates large outstanding costs for the taxpayer, and militates against any form of price competition.

The next two chapters look in more detail at our current institutions and funding systems. Chapters 1 and 2 examine current tertiary provision – first at sub-degree and then at degree level – and chapter 3 analyses the relationship between current provision and the labour market. Chapter 4 discusses our funding system, and whether its rationale is robust and justifiable. Chapter 5 explains the serious consequences of continuing with our current funding arrangements under a number of plausible future scenarios (including the passing of the Higher Education Bill currently before Parliament).

Chapter 6 makes concrete proposals for reform. We propose a unified individual financial entitlement system for all tertiary institutions and programmes, and all citizens, as a **necessary** step to a system which is fit for purpose. Something like this has been proposed a number of times before. But this chapter explains why the change is affordable and feasible, and why it should be targeted specifically and exclusively on tertiary provision. We also recommend immediate action by government to re-establish a credible structure for sub-degree tertiary awards, as otherwise any move to a general tertiary entitlement will have limited impact. These changes would, over time, gradually re-orientate the system and make it more efficient, more genuinely competitive, more diverse, financially sustainable and far more fair.

A good deal of publicity has been given to the development of 'higher' and 'degree' apprenticeships, but this monograph does not examine apprenticeship in any detail. The number of 'higher' and 'degree' apprenticeships remain tiny and there are no clear mechanisms for developing apprenticeships as a major tertiary-level alternative, although these may emerge in future years. If the structural change proposed in chapter 6 were implemented, it would make it much easier for higher-level apprenticeships to develop. However, it would be impossible to drive general tertiary reform through the apprenticeship programme, and an attempt to do so is very likely to prove a

distraction from improving the quality of mainstream apprenticeship provision. They are therefore not included in this analysis.

Chapter 1. Current tertiary provision (1): the shrinking of technical education in England

Today, our tertiary system operates in a country where participation in upper secondary education to the age of 18 has become the norm. England, and the UK generally, retained a genuine youth labour market, with decent jobs available for 16 and 17 year olds, for considerably longer than most other OECD countries, but this has now vanished: 94 per cent of 16-17 year olds today are in full-time education or training.³ In 2012, some form of participation in education or training became compulsory up to age 18, a change which both cements and reflects the degree to which the country had followed mainstream trends towards extended full-time education.

What has happened to our technical education, and, therefore, to sub-degree tertiary provision, is, however, far from mainstream. On the contrary, it is the result of one of our most distinctive and also one of our least successful and most regressive set of policy initiatives.

England (and the UK) were not always technical ‘failures’. In the century before the Second World War, a national network of technical colleges developed, largely serving local employers and enrolling students on day-release and for evening classes. Post-war, these grew: in an unusually successful, and almost forgotten, reform, the Heath government introduced a set of new national qualifications. This supplemented – but did not set out to replace – the old highly specific craft, commercial, technical and professional qualifications developed over previous centuries by guilds, employers and professional bodies.⁴

These national qualifications – Ordinary National Diplomas and Certificates (ONCs and ONDs) and Higher National Certificates and Diplomas (HNCs and HNDs) – are still remembered as highly valuable and credible, although today, as a result of an odd and tortuous history, the names are the property of a commercial company.⁵ They provided the sort of technical pathway which is very common in other European countries, with ‘Higher Nationals’ generally offered in polytechnics, with the possibility of proceeding to a full degree. However, from the mid-80s onwards, this clearly understood pathway was attacked and obscured by a succession of government reforms. The result was that, instead of further developing and expanding clear secondary and tertiary level alternatives to academic A levels and university degrees, England found itself with uniquely inchoate vocational and technical provision.⁶

It is impossible to talk of a ‘system’, because in the last 30 years anything recognisable as such has been comprehensively demolished. Successive reforms of qualifications resulted in a much less coherent and much less well-understood system of awards than obtained in the 1970s. In the last few years, there have been major reforms in the organisation and delivery of 16-18 education, and the recent Sainsbury Review is intended to create a clear set of nationally defined technical options for full-time upper secondary provision. However, there has been no such reform at tertiary level. Confusion and complexity in qualifications compound the impact of an equally complex institutional scene.

The main intention of serial reforms from late 1970s until 2010 was to shift vocational and technical training into the workplace. ‘National Vocational Qualifications’ (NVQs) were developed in their hundreds between the mid-80s and the mid-90s under the aegis of the ‘National Vocational

Qualifications Council' (created in 1986 and merged with another education quango in 1997). The architects of these NVQs envisaged further education colleges withering away: all young people would either do A levels or go straight into work and acquire NVQs on the job.⁷ Later, under Gordon Brown, funding was directed to companies and to giving qualifications to current employees, again on the job, and in highly specific work-related skills, most visibly through 'Train to Gain'. As the name suggests, this was a major, though ineffective, plank of productivity policy at the time.⁸

Money was increasingly channelled through contracts with 'providers' (sic), and based on payment-by results (i.e. payment by number of qualifications delivered): and much of the money was deliberately directed towards private providers rather than public colleges. The main government funding agency at the time (the 'Learning and Skills Council') was, in the final years of New Labour, explicitly directed both to increase the number of contractors used, and to encourage the emergence of new awarding organisations offering brand-new qualifications to compete with existing ones. This policy was based on the belief that simply having large numbers of providers and awarding bodies would deliver competition which would drive up quality. The nature of the sector meant that the opposite occurred, as governments since 2010 have, belatedly, started to realise.

After decades of upheaval, how do things stand? Institutionally, colleges survive as general further education institutions, doing a number of things well. But at tertiary level, technical education is in tatters.

Further, technical and vocational institutions

Although the reformers of the 1980s hoped that colleges would vanish, the colleges did no such thing. However, they changed: and in ways which took them increasingly far from the employer-oriented technical institutes (or 'technical colleges') in which many of them originated.

As secondary participation increased and lengthened, with more and more 16, 17 and 18 year olds in full-time education, colleges (now known as 'Further Education' colleges) became the destination of default, recruiting all those who were not welcome on, or interested in, school-based sixth form programmes.⁹ Today, the most important source of funding for the 'FE sector' is full-time education for 16-18 year olds, and this has been the case for many years. A second major source of government funds has been remedial/basic education for adults, notably recent immigrants seeking to learn and improve their English.

While colleges continued to offer some higher-level vocational and technical courses, these played – and play – a far smaller role than in the past, and relationships with local employers also became much less important to their business than in the 1950s or 1970s. At the same time, employers themselves have, since the 1990s, been spending less and less on training. It is not clear why this is the case, although two factors may be both the huge number of graduates now entering the labour market, and the increasing number of immigrants, many of them with specific vocational skills. However, the trend is clear, and confirmed by a succession of different large-scale surveys.¹⁰

Overall, therefore, English FE colleges have become completely different from the dedicated technical institutions which are common in other European countries, or from the community colleges of the United States. While the latter are clearly tertiary in their concerns, dealing with people who have completed a full school-based education and are moving to the next stage of education and training, English colleges have become less and less so.

FE Colleges today are just one part, albeit a large one, of a 'vocational' sector which is more complex, changes more constantly, and is less well mapped by its government funders than in any other developed nation. Ever since the vocational reforms of the early 1980s,¹¹ a great deal of government-funded training has been carried out by private companies (mostly for-profit but including some charities) who obtain annual contracts to provide training courses and placements. Use of such providers was consistent policy from the 1980s onwards.¹²

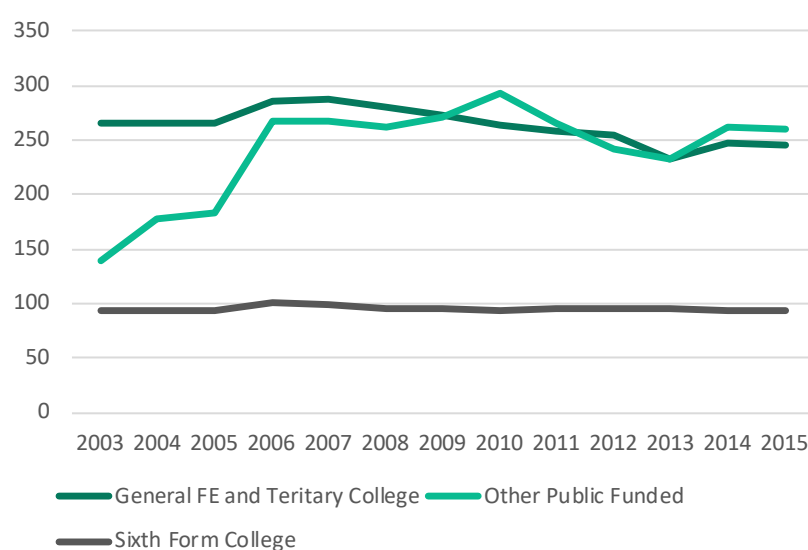
The number and size of these providers is extremely difficult to track and allocation of funds to them is not delineated clearly in any government statistics.¹³ Given the many millions of pounds which they receive every year, this may seem astonishing (many people, including civil servants, cannot believe that this can be the case, but it is). When the recently-established Centre for Vocational Education Research set out to map provision, they found major divergences between lists provided by funding agencies, and the 'Individual Learner Record' information which actually tracks the individual qualifications taken by an individual learner, and is the basis for payments made to providers.¹⁴

The CVER duly undertook a major statistical exercise, as a result of which we can now access some basic descriptive data on the sector, and also re-confirm the point made earlier: namely that, institutionally, English sub-degree tertiary, and general adult, education and training provision is extraordinarily unstable and obscure.¹⁵

Figures 1a and 1b below reproduce the CVER findings on the numbers of providers, by type, who received funding from the Skills Funding Agency, the government agency which deals with apprenticeship at any age and with non-university 19+ education and training, and its predecessor agencies. As it shows, the number of private sector providers increased very fast after 2003 and then declined again after 2009. FE college numbers have declined a little; sixth form college numbers have been stable; and numbers of non-college public sector providers have also increased.¹⁶

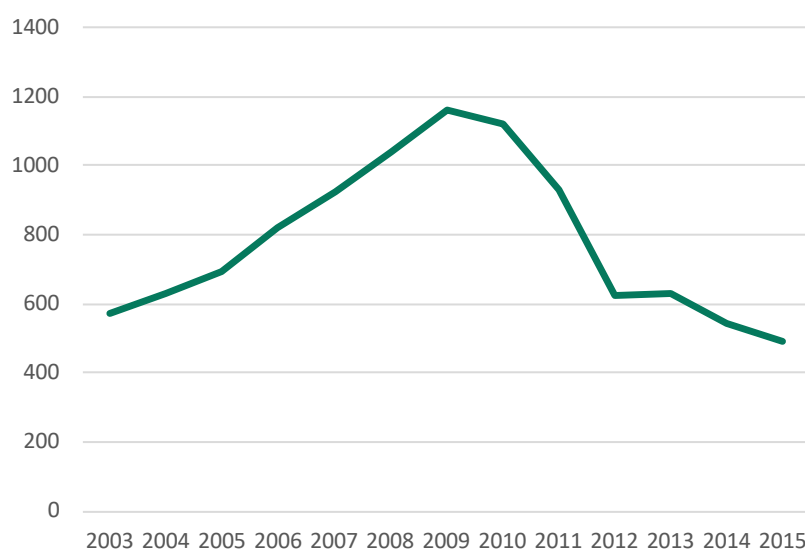
These figures describe a sector in which there is enormous variability within each group of institutions, in terms of size, resources, coverage and capacity. Colleges, other public providers, and private providers – though not necessarily each individual institution – are all recruiting 16-18 year olds and apprentices as well as adults (19+), but in varying proportions.¹⁷ At the same time, only (some) FE colleges have the capacity to deliver higher-level technical and occupational courses. To reiterate an important point, England is very unusual in lacking clearly identifiable and dedicated institutions whose remit is tertiary technical and vocational courses.

Figure 1a: Number of public providers in receipt of government funds: England 2003-15



Source: Individual Learning Record data, analysed by CVER (Provisional figures)

Figure 1b: Number of private providers in receipt of government funds: England 2003-15



Source: Individual Learning Record data, analysed by CVER (Provisional figures)

What is the FE sector producing?

If 'FE' today is far-removed from its technical, employer-linked, origins, then what is it about? Or, more specifically, how much tertiary and higher technical education is it providing?

Publicly-funded education and training for adults is today almost invariably 'award-bearing': i.e. it leads to a formal qualification. Table 1 below summarises the way in which English qualifications are currently classified, including those which are tertiary in nature (the framework has been redeveloped a number of times since it was first introduced in the 1990s). 'BTEC awards' are the successors to the ONCs and ONDs of earlier years, and classroom based: HNCs and HNDs still exist but as noted above are now a proprietary qualification owned by a private company, Pearson. City & Guilds craft awards are also long-standing, taken in traditional occupations such as catering,

construction and craft-level engineering. Putting everything – whether academic or vocational – into a single hierarchy inevitably creates somewhat spurious ‘equivalencies’ between awards and courses which are totally different in content and purpose, but it does also allow one to identify awards which are clearly ‘post-secondary’ in their demands and entry routes.

Table 1: The Qualifications Framework (England 2016)

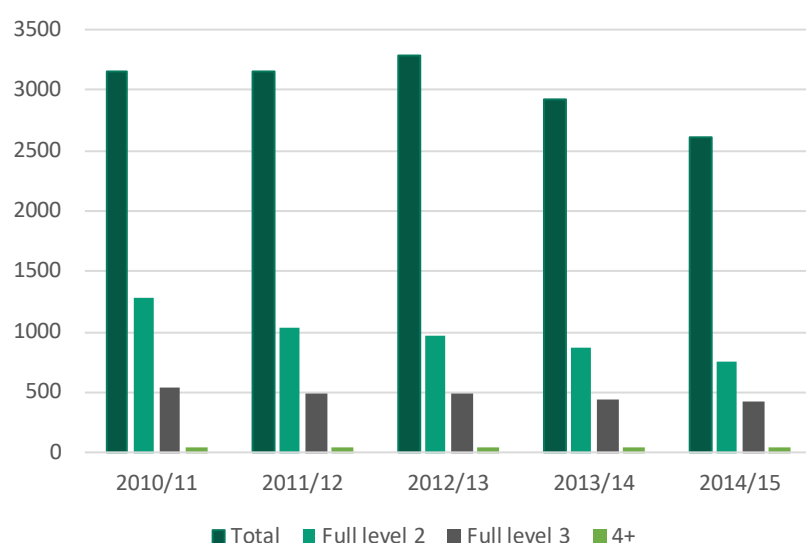
Level	Examples (mainstream academic)	Examples (technical, vocational, and ‘applied academic’)
SUB-TERTIARY LEVELS		
Entry	Entry level literacy, numeracy, English as a Second Language	
1	GCSE (grades D-G)	NVQ level 1 BTEC award level 1
2	GCSE (grades A*-C)	BTEC award, certificate and diploma level 2 NVQ level 2
3	AS and A level International Baccalaureate	BTEC award, certificate and diploma level 3 (BTEC National) NVQ level 3 City & Guilds craft awards
TERTIARY LEVELS		
4	Certificate of higher education	Higher National Certificates (HNC) NVQ level 4 Technician and chartered technician awards (e.g. Accounting Technician level 4)
5	Foundation degrees Diplomas of higher education	Diploma of further education Foundation degree Higher National Diploma (HND)
6	Bachelor’s degree with honours PGCE Graduate diploma	
7	Primary qualifications for medicine, dentistry Master’s degree Postgraduate certificate Postgraduate diploma	Final professional qualification (chartered professions)
8	Doctorate	

What we have referred to as ‘tertiary’ education starts, essentially, at level 4 in this classification. Level 3 is also very important to the economy, since it contains many demanding craft qualifications, traditionally delivered through apprenticeships but also through full-time college courses. Today, many people will start such a craft course at 18 or over, not at 16. However, level 3 qualifications are not what would normally be thought of as tertiary awards, and are not so treated here.

For over three decades now, central government policy has promoted large volumes of low-level vocational qualifications in the non-university adult sector, at the expense of tertiary-level qualifications or even full craft awards at level 3. Much of this activity has involved non-college, private, providers – but the general emphasis on high volume at low levels is very evident in all non-university adult education and training, including that delivered in colleges.

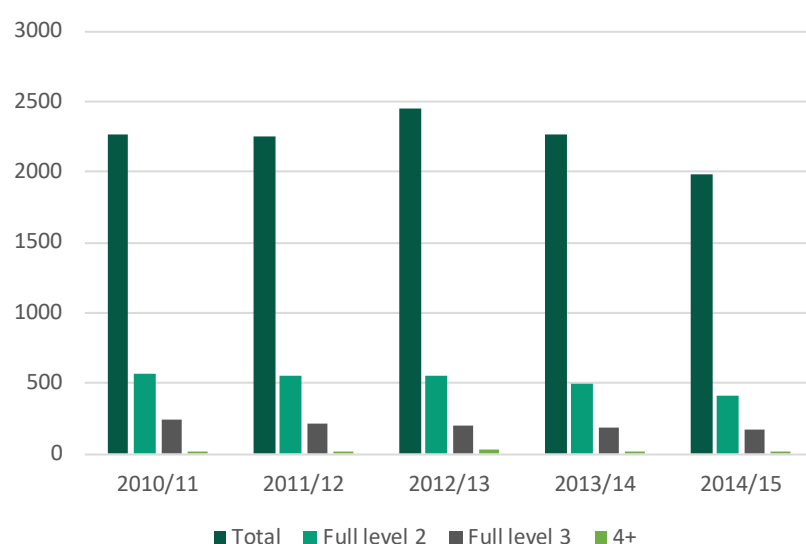
Figures 2a and 2b summarise current provision and recent trends, using the most recently released statistics for all non-university learners over 18 who are funded wholly or in part through public funds. Many of the qualifications delivered within the adult skills sector are small, and can be achieved quickly, including many which are classified as level 2 or even 3.¹⁸ A ‘full level 2’ or a ‘full level 3’ qualification is, in contrast, a substantial undertaking: typically, a full level 2 would be taken full-time over the course of a year and a full level 3 over two years, and traditional craft qualifications would fall into these categories. So would level 2 and level 3 BTEC awards being taken by adults (age 19+). ‘Full’ level 2 and 3 qualifications are reported as a separate sub-category in government statistics.

Figure 2a: Adult learners funded (by highest qualification): adult skills budget England (thousands)



Source: SFA First Statistical Release 2016

Figure 2b: Adults achieving qualifications: adult skills budget England (thousands)



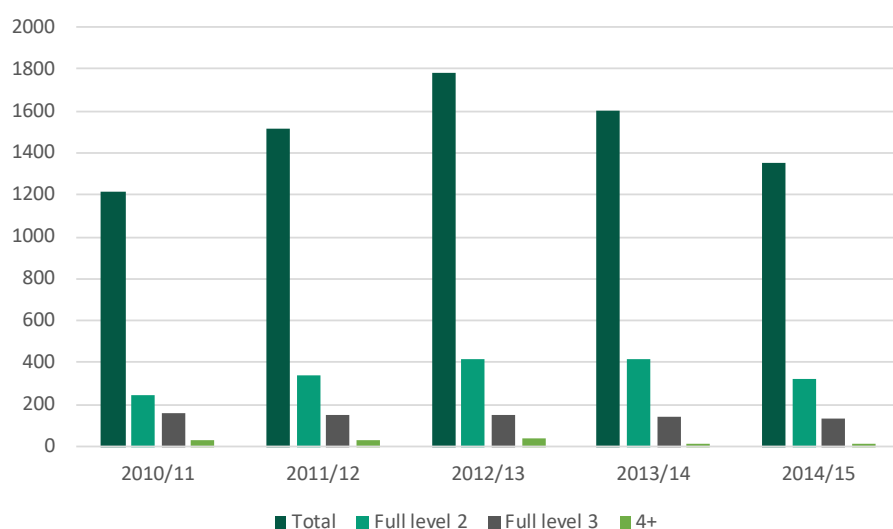
Source: SFA First Statistical Release 2016

As Figure 2 makes clear, for the adult skills budget as a whole, substantial qualifications – full level 2, full level 3 and levels 4 and above – make up only a minority of the qualifications delivered and

funded from 2010-15. Absolute numbers of qualifications start to decline in 2013, which probably reflects some related policy changes, such as a minimum length for apprenticeships, as well as overall budget pressures. The number of substantial qualifications at levels 2 and 3 also declined: so did those at 4+, where numbers were extremely small and declined further.

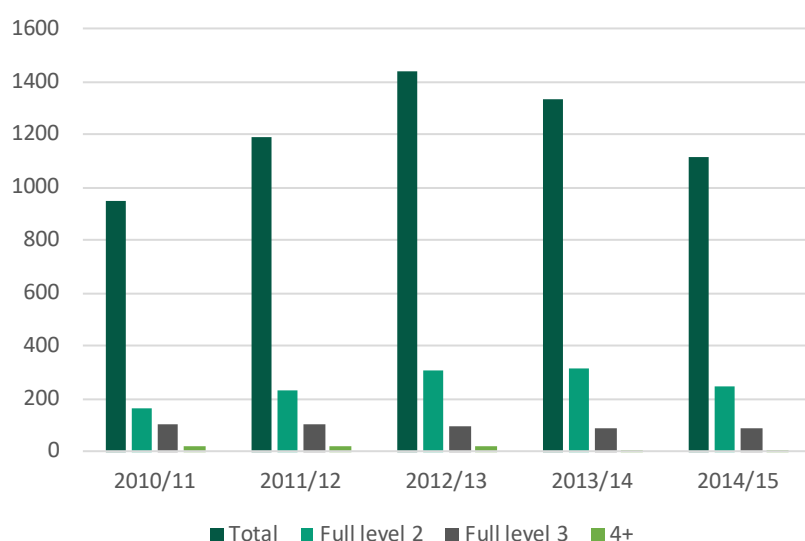
Many of these qualifications were awarded within apprenticeships. Figure 3, therefore, presents separate information on participation and awards under one particular part of the adult skills budget, the 'education and training' budget: this covers qualifications which are classroom or workshop rather than workplace based, and which normally are delivered in colleges, although the match is not perfect.¹⁹ It accounts for a minority – through a growing minority – of adult participant numbers and for a rather larger share of achieved awards, and here too there has been a large overall decline since 2012-13. The decline in the (barely visible) level 4 awards can be linked to funding changes and is discussed further below in chapter 4.

Figure 3a: Adult learners (by highest level) funded under the Education and Training budget: England (thousands)



Source: SFA First Statistical Release 2016

Figure 3b: Adults achieving qualifications: education and training budget England (thousands)



Source: SFA First Statistical Release 2016

These figures tell us that, in the adult population enrolled in ‘further education’, only a small number of students do any form of advanced or moderately advanced study. For tertiary awards, the main focus of this paper, the results are even more stark.

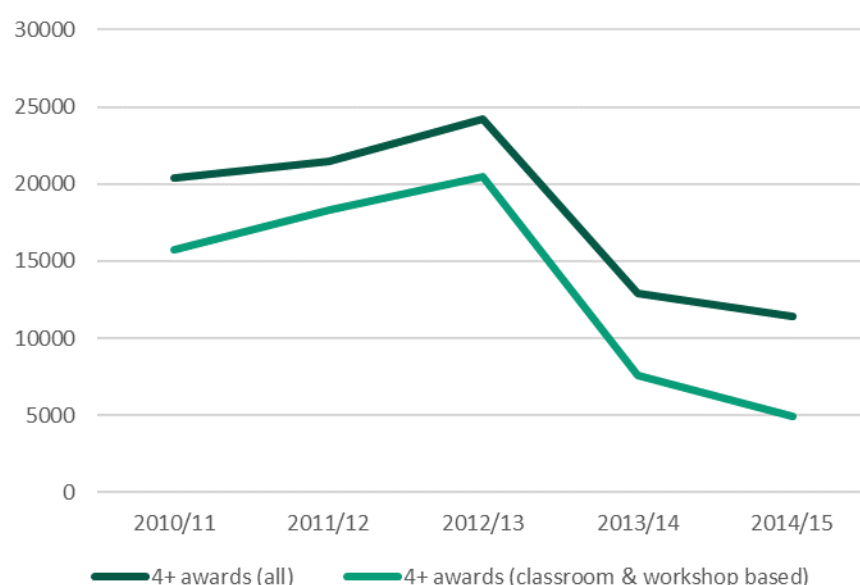
A grand total of 4,900 learners achieved level 4+ awards under the college budget in 2014/5. This was a fall of 36 per cent since the previous year. In that same year, higher education in the UK recorded 745,000 awards (undergraduate and postgraduate) of which 395,580 were full first degrees: a figure *eighty times higher*.

Looking at all learners funded from the adult skills budget the total figure is 11,400 level 4+ awards achieved – which more than doubles the numbers who are classroom-based. The additional 6,500 award holders were funded through workplace and apprenticeship provision, including the ‘higher apprenticeships’ which are a central part of the government’s current apprenticeship plans.²⁰ Modest increases in the number of higher apprenticeships do not begin to make up for falls in college-based level 4+ awards: and to put that total of 11,400 in context, note that 8,326,000 vocational qualifications are recorded as ‘achievements’ in 2014/15 under the overall adult skills budget.²¹

Figure 4a and 4b below summarise recent trends, including a break-down of level 4 and level 5 awards.²² There has been a small upturn in level 5 awards, which are largely HNCs and HNDs, alongside the precipitous decline at Level 4: but the numbers are tiny (520 students in the whole of England achieved an HNC in 2014/15 under adult skills funding, and just 160 achieved an HND).²³

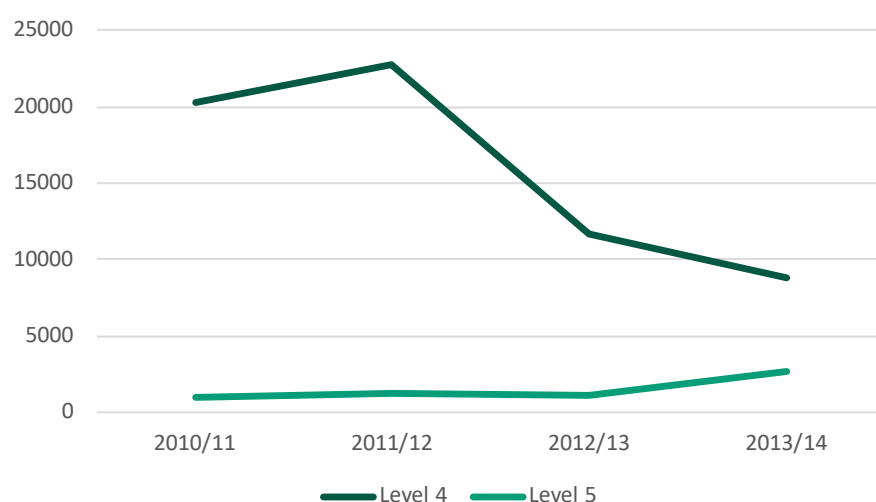
One reason for the decline appears to a shift in funding methods for learners over 24 (discussed in chapter 4). However, this is unlikely to be the only reason. The Association of Accounting Technicians, which is at present probably the single most important awarding body for these sub-degree tertiary skills, largely recruits employed individuals, many of whom are employer-sponsored. It reports a major, though less dramatic, fall for its level 4 awards. 6,642 level 4 awards were made in 2013, falling by about 16 per cent, to 5,833, between then and 2016.²⁴

Figure 4a: Level 4+ awards for courses supported by the adult skills budget: England 2011-15



Source: SFA First Statistical Release 2016

Figure 4b: Level 4 and level 5 awards for courses supported by the adult skills budget: England 2011-15



Source: SFA First Statistical Release 2016

The creators of the current qualifications framework allocate a full two levels – four and five – to sub-degree tertiary awards, indicating that they recognised this as an important part of tertiary provision. Yet nothing in current government plans suggest any major shift from our current very low levels of these awards. Table 2 below summarises current spending plans in the adult skills sector. Projected spending figures underline that the government’s priority is apprenticeship: direct funding for colleges is simply maintained at current levels, and with a smaller share of the budget.

Table 2: Adult Skills spending in England: current budget allocations, and projected patterns.

	2015/16 (£'000s, actual)	% of budget	Indicative 2019/ 20 (£ '000s)	Increase 2015/16 to 2019/20
19+ apprenticeships	740,000	25%	1,422,999	92%
Adult Education Budget	1,494,000	51%	1,512,000	1%
Advanced Learner Loans	202,000	7%	480,000	138%
Offender Service	130,350	4%	130,350	0
Support Services	373,113	13%	239,427	-36%
Total	2,939,463	100%	3,784,776	29%

Source: Skills Funding Agency Funding Letter, Nick Boles MP to Peter Lauener, December 2015

Sub-degree provision in the higher education sector

An obvious response to these figures is to find them deeply implausible. Can there really be so little provision in the current English system for intermediate tertiary skills? Can it really be this unbalanced? Perhaps large numbers are being funded elsewhere or through another budget.

As noted in the Introduction, England is unusual in its lack of dedicated 'intermediate' tertiary institutions. It also has universities that do an unusually wide range of things: in most other countries, universities and other higher education institutions have more clearly delineated and limited competences, which determine whether, for example, they can offer sub-degree, or postgraduate qualifications. And finally, England has a higher education funding system which provides higher education funds directly to other institutions as well as universities: both 'alternative providers' (see below) and further education colleges.

So it is possible that a large number of level 5, or even level 4, courses are being funded through a 'higher education' funding stream, not through the adult skills budget. There is an additional puzzle here, in that OECD tables (using data from member governments) show the UK as having a sizeable number of people with what are referred to as 'Tertiary B' qualifications – shorter tertiary courses of the level 4/level 5 type, as compared to 'Tertiary A', namely full bachelor's degrees and above. If that is the case, where are they being delivered?

At present, there are two categories of course for which institutions or students may receive money from the country's higher education teaching budget. (Students receive funds through loans or bursaries).²⁵ The first category is full degree courses: the second is shorter courses – Foundation Degrees and Higher National Diplomas and Certificates – which sit firmly within the 'intermediate tertiary' category, as two-year sub-degree (level 5 and level 4) awards. How far does this latter group change the picture of tiny and shrinking intermediate tertiary provision? And where are they being delivered?

HNDs and **HNCs** were, as noted above, part of the technical route which was developed in the 1960s and 1970s, and effectively abandoned by central government as a result of the workplace-oriented qualification and training reforms associated with NVQs.²⁶ They have survived as the proprietary property of Pearson, which acquired them along with the BTEC awards which originated as ONCs and ONDs. **Foundation degrees** (level 5) are two-year degrees which were introduced in 2000 explicitly to address the economy's assumed need for intermediate tertiary qualifications. They are developed with employer input (a formal requirement) and David Blunkett, the Secretary of State who launched them, announced that they would be 'targeted upon higher level skills shortages in

growth areas of the economy’: holders would ‘contribute their full potential in all sectors of the labour market, so meeting the needs of employers.’²⁷

All of these can be delivered, drawing on HE funding streams and direct fee payments, in higher education institutions, in further education colleges, and by ‘alternative providers’. The latter are a new but rapidly growing presence in the English tertiary scene, as explained in Box A.

Box A. Alternative Providers (APs)

‘Alternative Providers’ are defined by government as providers of higher education which are not in receipt of ‘recurrent funding’ from the higher education funding bodies - as mainstream universities are – or from other public bodies – as schools are – and which are not Further Education Colleges. Until recently there were very few such institutions, but they have grown rapidly, and are now highly diverse. They include a few sizeable high-fee institutions such as the University of Buckingham and Regent’s University (both not-for-profit: and Buckingham is counted as a public provider in main HESA statistics) but also many tiny institutions: in 2015, there were 428 in total on the HEFCE register, down from a total of 670 two years earlier.²⁸ This follows an investigation by the National Audit Office which found that students at a number of alternative providers were claiming support to which they were not entitled and that some HND/HNC students were recruited but not registered with the awarding body. Following the NAO report, the Home Office introduced new regulations for the sector.

In 2013-14, a report for BIS identified 732 and surveyed 276 alternative providers, 75 per cent of which employed ten or fewer members of staff. 64 per cent were commercial for-profit organisations. Only 8 had their own Degree Awarding powers. Over a quarter of the students surveyed were international (non-EU) by domicile; many had previously been employed; and on average they had comparatively low levels of prior academic attainment, with just under a quarter reporting that they did not have a prior qualification at level 3. The report estimates that between 245,000 and 295,000 students were enrolled in alternative providers.²⁹

In order to have degree or HNC/HND courses ‘designated’ for student loan funding (meaning that ‘home’ students can access up to £6000 a year in loans), providers must be inspected and meet standards set by the Quality Assurance Agency (QAA). In 2015, 117 Alternative Providers had specified courses that were eligible under student support regulations: in the previous year around 50,000 were in receipt of Student Loan Company loans.³⁰ Designated courses with alternative providers enrolled 50,245 students in 2014/15. Far and away the largest category was Business and Administrative studies, enrolling a clear majority (54 per cent) of the group.³¹

HNCs and HNDs

Back in the 1970s and 1980s, these awards were central to polytechnic provision. Today, however, HNDs and HNCs are more attractive to FE Colleges and Alternative Providers without full degree-awarding powers (see Box A) than they are to universities. As noted above, the qualifications are the property of an awarding body, Pearson. It can therefore provide the quality assurance/validation for the awards and approve institutions to teach them. Any institution with university title can validate its own awards and has little incentive to pay Pearson in order to offer their award.

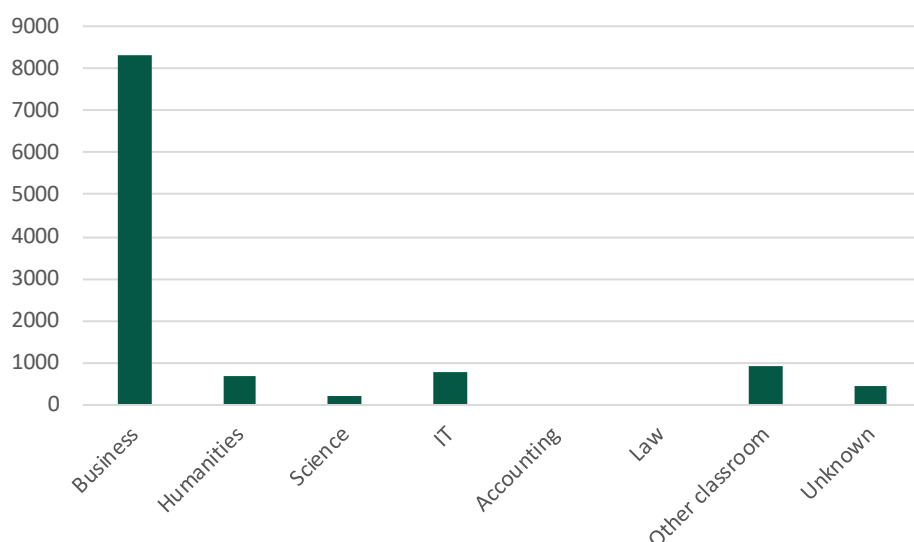
Within mainstream public provision, which includes both universities and FE colleges, HNDs and HNCs currently enrol a tiny minority of students. In reply to a parliamentary question, HEFCE stated that 14,725 students were registered for HNDs and 18,680 were registered for HNCs in English higher education institutions and FE Colleges in 2014/15, compared to a total undergraduate population in English HEIs of 1,402,000.³² It is surprisingly hard to establish exact numbers, but all estimates are for a very low volume of students – no more than 2.5 per cent of total undergraduate numbers in English universities in 2014/15.³³

Note that these are enrolled numbers, not qualifications achieved, and that most of these courses will be at least 2 years long. Data for level 4 qualifications delivered under the adult skills budget suggest that about three-quarters of students complete their courses. So these are tiny numbers.

Given the very low enrolments in English public institutions, is the Alternative Provider sector filling skill gaps effectively? As discussed below, the number of such institutions has expanded very fast in recent years, and an optimistic interpretation would be that an entrepreneurial and market-driven group is indeed responding to employer demand, and ensuring that, after all, intermediate tertiary provision thrives.

The reality, alas, is less encouraging. 45 per cent of all students on ‘designated courses’ offered by APs – i.e. level 5 & 6 courses where their students are eligible for student loans - are indeed taking HNCs and HNDs. But they are overwhelmingly in Business (see Figure 5). In 2014/15, fewer than 1,000 students in the Alternative Provider sector were enrolled in engineering and technology courses, and only 8 per cent of the HNDs/HNCs awarded were in science-related subjects (including engineering), amounting to a total of 345 students.³⁴

Figure 5 HNC/HND student enrolments by subject area, alternative providers, 2013-14



Source: Shury et al., 2016

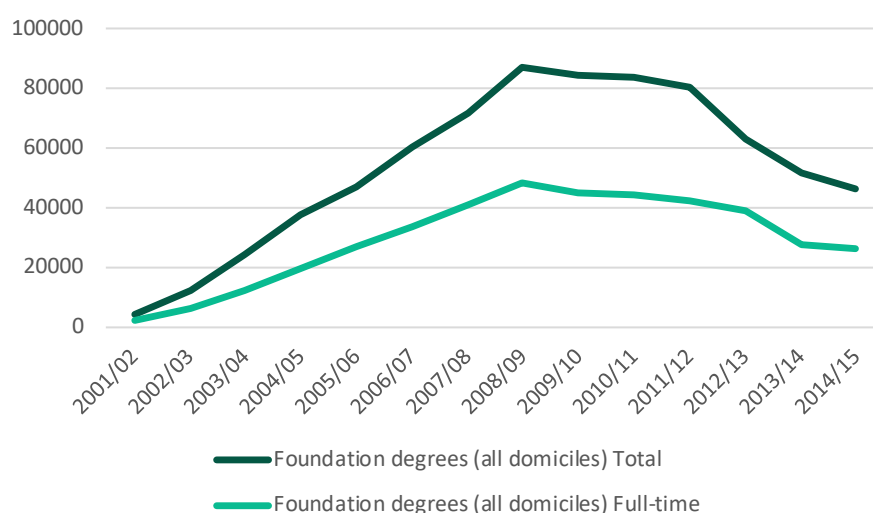
Foundation degrees

Given that HNCs and HNDs seem to have lost their original role, has the creation of foundation degrees generated a new sub-degree tertiary pathway? Certainly, the number of students on foundation degrees grew quite quickly in the early years. However, this was also a period when numbers were being capped across the whole of higher education. Universities were given a fixed allocation of funded places for home undergraduates on bachelor’s programmes (and fined if they exceeded the number), and offering foundation degrees was one of the very few ways in which a university could add ‘home’ funded student places. In recent years, caps have been progressively relaxed in England and since 2015 there has been no cap at all on numbers of young full-time undergraduates that English higher education institutions can admit to full degree courses.

As Figure 6 shows, foundation degree numbers have fallen sharply. In 2014/15, just over 2 per cent of the English higher education student body documented by HESA (Higher Education Statistics

Agency) were enrolled for Foundation degrees - 26,300 full-time and 20,000 part-time. Overall, when foundation degrees are added to HNCs and HNDs, level 4 or 5 awards accounted for 3.7 per cent of all UK higher education students.³⁵ Within England, 36,000 students commenced a Foundation Degree in 2013/14 and 33,600 in 2014/15: the fall was mostly in students registered with a higher education institution, with FE-based numbers showing only a small fall compared to the 2007/8 peak.³⁶

Figure 6: Foundation Degree students (UK) 2001-2015



Source: HESA

These figures are, at first sight, hard to reconcile with the estimates that our government supplies to the OECD, indicating that 10 per cent of UK 25-64 year olds hold a 'Tertiary B' qualification.³⁷ However, government figures are based on analysis of Labour Force Survey data. In England these are always problematic for qualification responses, because of the relentless frequency with which this country redefines and changes its qualifications. More specifically, the summary figure, which covers the bulk of working-age adults, obscures two changes. First, the proportion with Tertiary B qualifications is lower for younger cohorts than for older ones (whereas for 'Tertiary A' – full degrees – the opposite is true). Second, nursing qualifications are currently still all classified as Tertiary B.³⁸ While this may have been accurate twenty years ago, this is not the case today: from 2013, nursing became an all-graduate profession, and there had been a steady increase in the number and proportion of graduates since the 1980s.

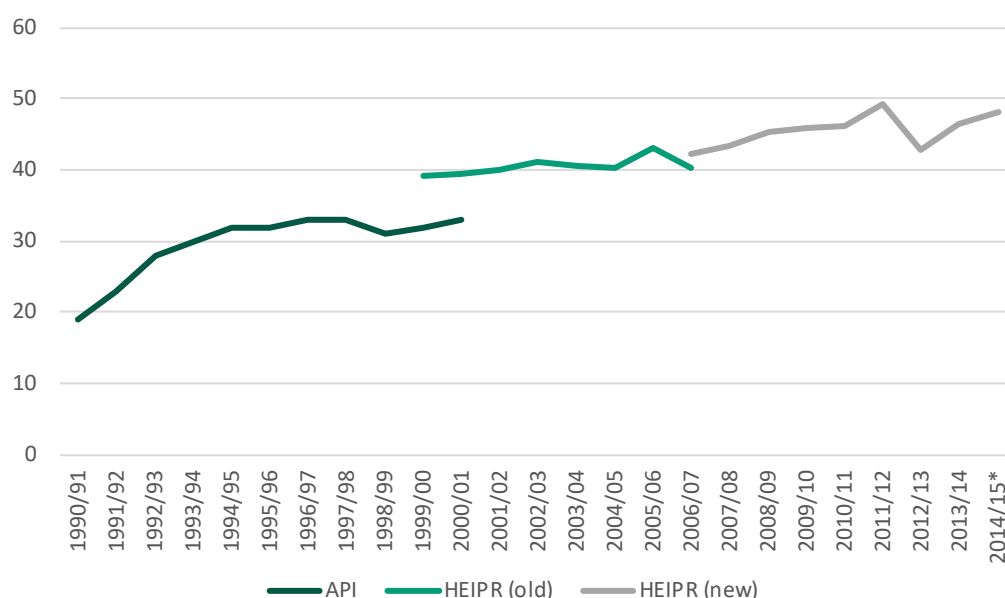
In England, today, intermediate tertiary awards are both few in number and in rapid decline. Most of them are in business (including accountancy) rather than in technical (STEM) areas. The adult skills budget is devoted overwhelmingly to lower-level qualifications, while in higher education HNDs and HNCs are tiny in number, and foundation degrees are in decline. This pattern of awards in England, as well as their institutional location, sets this country apart from practice in, say, Germany, the Netherlands, Canada or Finland. All of them have clearly defined intermediate tertiary pathways and institutions dedicated to their delivery. These differences, and whether they matter, are discussed at greater length in chapters 2 and 3.

Chapter 2. Current tertiary provision (2): the explosion of higher education

As the previous chapter established, intermediate level tertiary qualifications are currently few in number. Move to higher tertiary levels, and the picture is entirely different.

Most people are aware that university enrolments have increased dramatically over the last few decades, but it is nonetheless worth summarising some of the key statistics. The most telling are those that look at participation *rates*, since absolute numbers are affected by fluctuations in the birth rate that can and do lead to major differences in the size of successive cohorts. Figure 7 shows the proportion of English 18 and 19 year olds who are admitted to university in the UK: this has continued to rise steadily. In recent years this has been achieved in large part through universities' increasing willingness to accept students with BTEC qualifications, who now make up 25 per cent of undergraduate entrants through UCAS.³⁹

Figure 7 – Higher Education Participation Rate (Adult Participation Index 1990-2000, Higher Education Initial Participation Rate 1999-2014)



Source: HEFCE (HEIPR), House of the Commons (API)

*Provisional

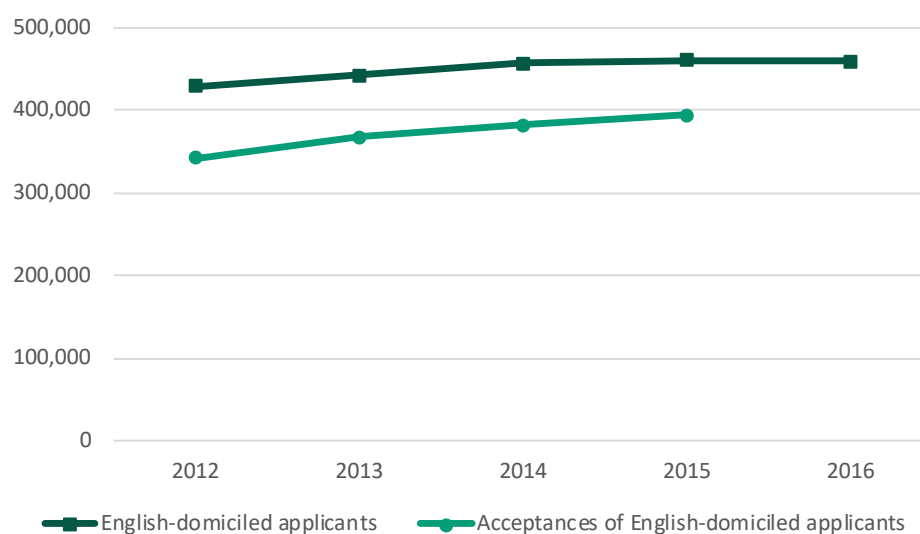
Looking at these figures we can see that successive governments' policies have succeeded. Whether Conservative or Labour, they have set out to increase numbers entering university: and numbers have duly increased.

The aim of the current government is now to increase them further. In England, there is, since 2015, no limit to the number of home undergraduate students that universities can accept, and for whom the government will provide fees (through a combination of teaching grants and income-contingent loans to the students). There are also no restrictions on *who* a university can accept: unlike most countries there are no formal criteria which must be met in order to enrol for a degree, other than being accepted by a degree-awarding institution. In theory, pretty much the whole age-group could

enrol for undergraduate degrees, irrespective of whether there were any changes in academic attainment levels.

The absolute size of the 17-18 year olds cohort has been falling, in the UK and the wider EU, for some years now. One might predict that this, plus a lifting of the numbers cap, would make it easier to obtain a university place. And indeed, as Figure 8 shows, there has been a steady increase in the *proportion* of applicants accepted since 2012.⁴⁰ There has been no retreat from university by English/British young people – commentators who have inferred this are simply wrong.⁴¹

Figure 8: Applications to UK universities by English-domiciled applicants, and acceptances of English-domiciled applicants by UK universities 2012-2016



Source: UCAS

The UK now has high participation and graduation rates, especially for younger cohorts, compared to its closest and most similar allies and competitors. Tables 3 and 4 below report on qualification rates among resident adults, rather than counting students (many of whom, in UK universities, will be from other countries). They show what proportions of British adults are now graduates and compares this to OECD/EU averages and to other major rich nations (these figures are from the OECD and are available only for the UK, but from UCAS data we know that omitting Scotland, Wales and Northern Ireland would tend slightly to raise rather than depress the figures).

Table 3: Percentage of adults aged 25-34 who have achieved Tertiary A (full bachelor's degree and equivalent) or above: UK and selected comparator countries

Country	Percentage of adults aged 25-34 who have achieved Tertiary A or above
Australia	37
Canada	32
France	27
Germany	19
Japan	35
Netherlands	40
Sweden	34
Switzerland	32
UK	40
USA	34
OECD average	30
EU21 average	29

Source: OECD 2015

Table 4: Proportion of the working age population (25- 64) who have attained Tertiary A qualifications (full bachelor's and equivalent): UK and selected comparator countries (excludes those with research degrees)

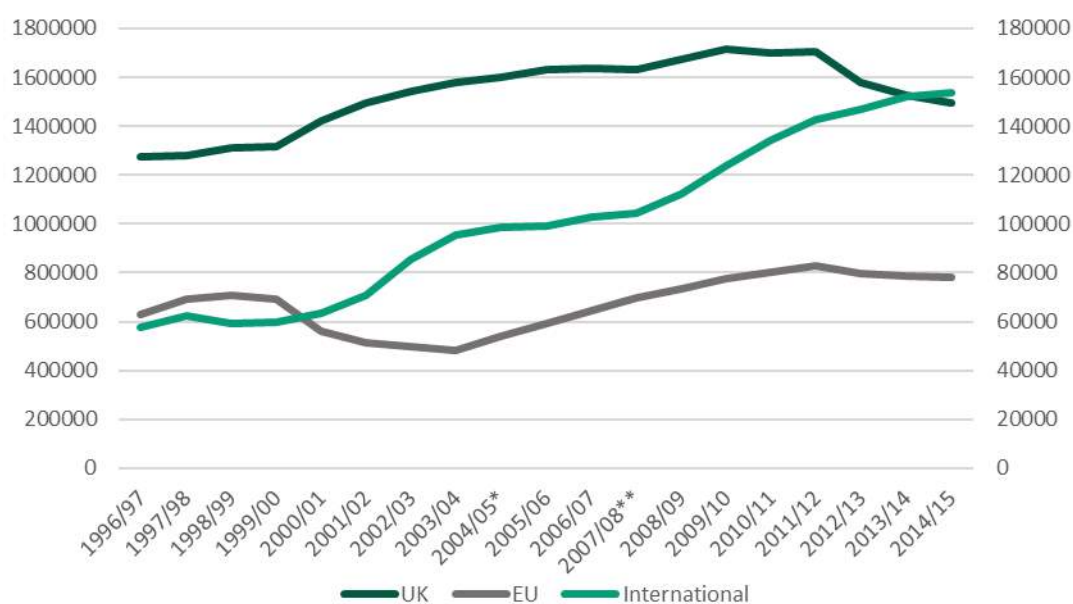
Country	Proportion of the working age population (25- 64) who have attained Tertiary A qualification
Australia	29
Canada	25
France	18
Germany	16
Japan	26
Netherlands	31
Sweden	25
Switzerland	23
UK	30
USA	31

Source: OECD 2015. No EU or OECD average is available for Tertiary A. The EU average for the proportion of the working age population (2012) which has achieved Tertiary A or Tertiary B is 29, which is lower than the proportion for the UK using Tertiary A alone.

Table 3, which looks at the number of graduates in the early part of their working lives (age 25 to 34) shows that the graduate share of the population in the UK is now 10 percentage points higher than the OECD average and 11 percentage points higher than the EU average for young adults. Looking at all core working-age adults, the UK among the 'high proportion' countries; and the OECD data also confirm that, in the period 1997-2009, the country's average annual rate of growth in tertiary education was above average.⁴²

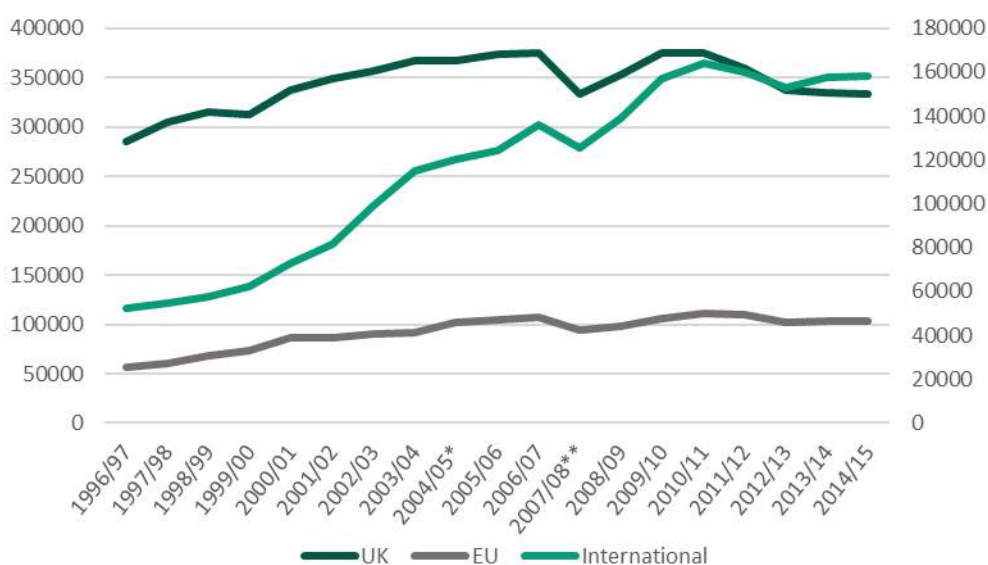
Figures 9 and 10 provide a different perspective, and show absolute numbers of undergraduate and postgraduate students in UK universities over a 20-year period. UK domiciled undergraduates now number around one and a half *million*: the dip after 2011 reflects falls in the size of the age cohort, as the data on participation and acceptances for the last few years make clear (Figures 7 & 8 above).

Figure 9: Undergraduate enrolments in UK higher education



Source: HESA (UK numbers on left axis, EU and international on right axis). *Prior to 2004, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovak Republic, Slovenia, counted as "International". **Prior to 2007, Bulgaria and Rumania counted as "International".

Figure 10: Postgraduate enrolments in UK higher education



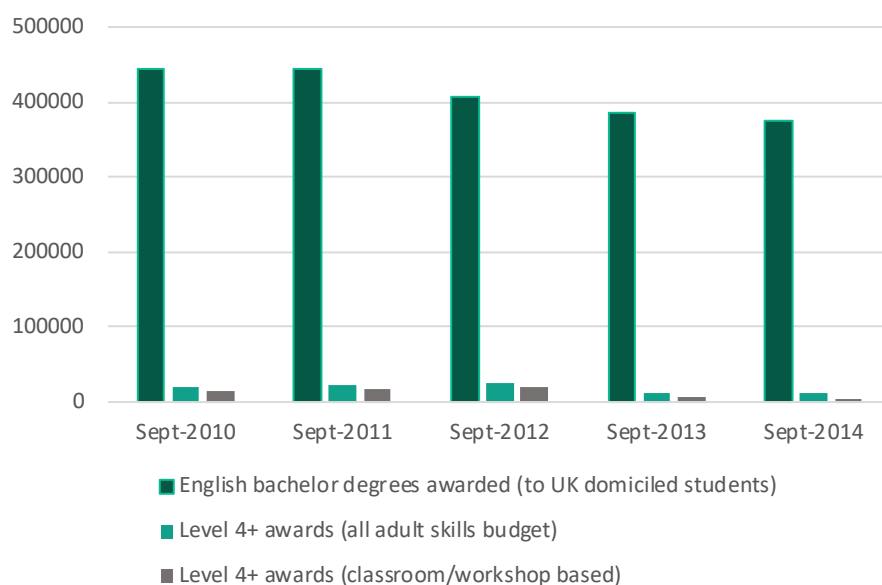
Source: HESA (UK in left axis, all other in right axis). *Prior to 2004, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovak Republic, Slovenia, counted as "International". **Prior to 2007, Bulgaria and Rumania counted as "International"

While governments, until recently, limited ('capped') the number of home undergraduates that universities could accept, postgraduate numbers have been largely uncapped for home and overseas students for many years. There has, however, been rather limited financial support available. As Figure 10 shows, here too there has been a rapid rise in international (non-EU) students, almost all of whom pay much higher fees than 'home' (UK+ other EU) students do.

The move to institutional uniformity

During the last few decades, England's higher education sector has expanded at speed, enrolling every larger numbers and proportions of young people. Over that same period, its sub-degree tertiary education has weakened enormously, and in technical areas is now virtually non-existent. Figure 11 illustrates this by comparing the number of bachelor's degrees awarded in a given year to UK-domiciled students studying in English universities to the total number of awards at level 4 and above that are made under the entire English adult skills budget and also those that are funded specifically from the education and training part of this budget (which goes almost entirely to colleges).

Figure 11: English bachelor's degrees awarded (to UK domiciled students), level 4+ awards (all adult skills budget) and level 4+ awards (classroom/workshop based)



Source: SFA First Statistical Release 2016, HESA

This marks England out very clearly as different from the international norm: other countries have not weighted their tertiary numbers nearly so heavily towards full, long degrees. However, it is important to understand that this is something relatively new: there has not always been this dichotomy. In the post-war period, a network of polytechnics was established, intended to provide higher-level technical and business diplomas and degrees with strong links to employment: HNDs, for example, were largely offered in the polytechnics. However, in 1992, under the Further and Higher Education Act, polytechnics were given independent university status. 33 new universities – all ex-polytechnics – were established in England during the 1990s.

In addition, there were, by the late 20th century, a sizeable number of public 'Higher Education Colleges', engaged in both intermediate tertiary and undergraduate education, and a sizeable number of specialist institutions, of varying sizes and with remits that included teacher training, agriculture, music, drama and dance, also engaged in tertiary education.⁴³ Almost all of these were either public sector or charitable. Some of these institutions, between 2001 and 2016, became universities, including, notably, the colleges of higher education and some of the best known specialist institutions such as Cirencester Agricultural College, now Cirencester University. Between

2000 and 2016 an additional 36 universities were created in England, making a total of 69 new universities in the last quarter century.⁴⁴

As a result, many courses which in other countries would be offered in higher technical or vocational institutions (e.g. courses for paramedics or teaching assistants) are, in England, largely found in universities. As was noted earlier, it is perfectly possible, in England for the higher education budget to fund level 4 and 5 awards in FE colleges: but as was also noted, the numbers that are funded in this way are very small.

‘Full’ higher education, to degree level, within FE, also remains very small-scale.⁴⁵ Between 2011/12 (the first year for which HESA published separate figures), the number of students based with English FE providers, but studying for full undergraduate or postgraduate qualifications, crept up from a little more than 5 per cent to a little more than 6 per cent of the English student body. In mainstream higher education, meanwhile, part-time student numbers have plummeted. Current government policy is designed to further reinforce English exceptionalism. The HE Bill which is currently before Parliament is intended to make it much easier to set up a new university, and to create many more English universities, which have exactly the same rights and funding arrangements as existing ones.

These developments have attracted remarkably little public or political debate. The one point prior to this year at which there was a clear governmental decision on institutional remit, and important primary legislation, was back in 1992, when the polytechnic/university divide was abolished. It is clear why many in the polytechnic sector wanted this. It offered greater autonomy, almost certainly more resources, higher prestige, and an improved ability to recruit high-fee overseas students who wanted to get their degrees from a ‘proper’ university.⁴⁶ Specialist and higher education colleges sought the university title for similar reasons.

What is not so obvious is why the British *government* opted to unify the sector, and abolish distinctive tertiary institutions with a technical and applied mission. It is similarly puzzling that the current HE bill adopts an approach whose primary result will be yet more small new institutions offering yet more Business qualifications. In fact, there is reason to doubt whether our ministers, or officials, have fully understood the results of their decisions. Successive governments have paid lip-service to the desirability of more higher education taking place in further education colleges, which are local, well-suited to adult part-timers, and cheaper.⁴⁷ Minister after minister has sung the praises of part-time higher education, and of making it easy for older adults to study, especially in the context of rapid technical and economic change. At the same time, they have consistently adopted policies which made it harder for them to do so (see chapter 4 below).

England’s system is, to repeat, highly unusual. Other governments have protected and developed a varied tertiary sector. For example, Canada has well-resourced tertiary colleges which concentrate on vocational subjects as well as full-provision universities; Germany has its technical universities or Fachhochschulen, as well as universities; the Netherlands has polytechnics and higher vocational schools. The US has community colleges offering two-year programmes, and its universities also differ systematically in whether they offer higher and research degrees as well as bachelors; France has IUTs as well as universities and grandes écoles; Finland created polytechnics in 1991 and has expanded them in recent reforms while maintaining their distinctiveness from universities.

Three possible explanations can be found for England's decision in 1992, and its later course of action.

- The first is that the overseas fees were seen as crucial, and financial arguments tipped the balance towards a unified sector which would recruit more of them.
- The second explanation is that this was seen as the most just and fair response. Everyone should be allowed to go to university, anyone who wants to attend should be entitled to do so. It seems unlikely that this was the original intention in 1992, since funded places at that point remained firmly capped. However, those who support a 'uncapped' demand-driven system, such as we now have, do take this position. It underpins the current government's drive to create yet more universities with full degree-awarding powers, while continuing to allow universities to admit anyone they wish to a degree, with no formal preconditions.
- The third explanation, which may also feed into the second, is the belief, never formally stated, that university is the only really valuable option at tertiary level, and that any other sort of tertiary institution is not simply second-best but essentially worthless.

Could this be true? Only, surely, if the labour market wants ever more university graduates, and nothing much else. Or, put differently, if the nature of the modern labour market means that countries which have opted for a more differentiated system have got things wrong. The economy does not, fact, have any use for sub-degree 'level 4 and 5' awards, only for full degrees or 'level 6'.

English governments certainly behave as though this is the case. The next chapter asks whether the evidence supports this view or not.

Chapter 3. Tertiary qualifications and the labour market

As we have just seen, contemporary English education is marked by a stark divide at tertiary level. On the one hand, there is an open-ended commitment to expanding degree-level education, building on a system which already enrolls close to half the school-leaving cohort. On the other hand, intermediate tertiary level qualifications have all but vanished. They make up below 1 per cent of university courses and an even smaller proportion of 'adult skills' provision, and their number is declining. This chapter asks whether this development makes sense in terms of the contemporary labour market.

Advanced education has always had a vocational element, typically providing lawyers, government bureaucrats, and religious leaders. But it has also – both in the West and in Asia – been seen as having other functions too: creating cultural excellence, spreading and seeking knowledge, saving souls.⁴⁸ However, during the last quarter of the 20th century, among English policy-makers, the only active criterion for designing and evaluating tertiary policy became economic.⁴⁹

The rationale for the current university funding regime, for example, is entirely economic: namely that a degree will enrich the degree holders, who therefore can afford to pay for their studies and also should pay for their studies, since they derive private benefit.⁵⁰

In the following pages, we first summarise recent general changes in the labour market and what they mean in terms of skill requirements. We then look specifically at whether there is still a demand for intermediate tertiary qualifications, of the type that have been vanishing from England. Third, we examine the evidence on demand for English graduate qualifications, specifically bachelor's degrees. Finally, we discuss briefly the argument that raising education levels, and especially the growth of universities, has general productivity effects, over and above demand and reward for specific skills.

Over-educated workers or skill shortages?

Supporters, on economic grounds, of mass higher education – and of encouraging further rises in graduation rates – are prone to cite expected increases in demand for very highly skilled jobs. At their most extreme, such projections look forward to a 'knowledge economy' in which almost nobody but the highly educated has a job and in which, conversely, we almost all of us "make our money from thin air: we produce nothing that can be weighed, touched or easily measured....Our children...will make their livings through their creativity, ingenuity and imagination".⁵¹ More prosaically, Universities UK argues consistently that there will be a 'continuing demand' for highly skilled labour and that expansion fuels the economy.⁵² The current government, following all of its predecessors since the 1960s, looks forward to a 'knowledge economy' future, arguing that "The skills that great higher education provides...will be increasingly in demand as the number and proportion of high-skilled jobs rises".⁵³

Other relevant arguments relate to the so-called 'hourglass economy'. The proposition here is that there has been a dramatic fall in the number and proportion of high-skill, secure, mid-level jobs, especially skilled and traditionally-male manual jobs, and that this will continue apace. We will thus move to an economy with a very large number of highly-paid graduate jobs and a very large number of unskilled, low-paid and often part-time jobs, and almost nothing in between. (See Box B) The gloomiest predictions come from those who believe that a very large number of

current jobs will be replaced by robots: which means that only the very highly educated and skilled have any sort of future in the labour market.⁵⁴ On this scenario, it would seem to make good sense to abandon traditional intermediate tertiary and indeed skilled craft qualifications, as English governments have done.

Box B. The growth in 'low-skilled' jobs

At the lower-paid end of the wage distribution, there has indeed been a major increase in certain jobs which are relatively low-skilled, in the sense that they do not require large amounts of formal education. Nursing assistants are one very large category. These are not jobs that anyone can do well – on the contrary – but they mostly involve so-called 'soft skills' rather than academic or technical ones. More generally, the job growth at this end of the market is concentrated in sectors which involve direct contact with people – care (for the young, old and infirm), restaurants and hotels, retail. For example, the number of care assistants in the UK has increased by 150,000 since the turn of the century. The number of conservation officers, a classic 'knowledge economy' job, and the fastest growing occupation in the UK, increased by just 15,000.⁵⁵

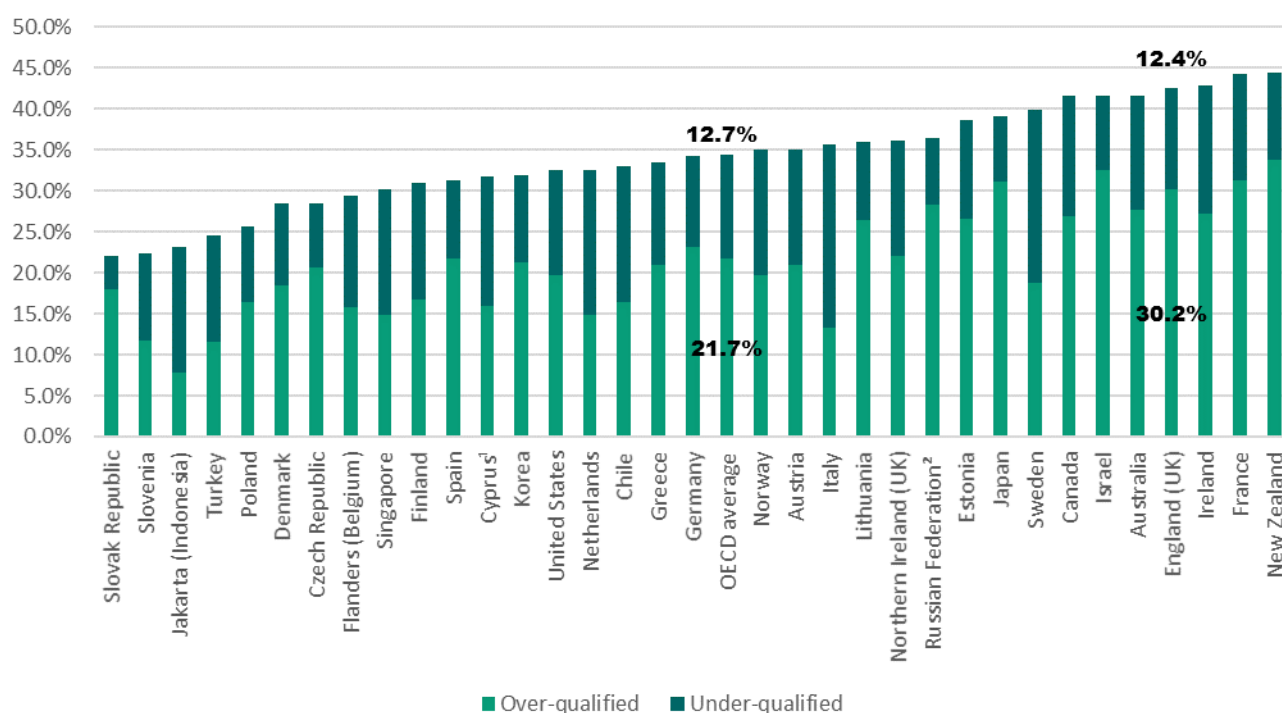
However, this view of the labour market is not one which bears much relation to reality. Indeed, in key respects it is increasingly out of line with the evidence, in terms of either what is happening to the distribution of jobs, or their content.

There is now a large and growing literature which examines the skill content of jobs, and how far it has changed. If a job whose content and demands have not changed shows a consistent increase in the educational qualifications of those holding it, then this is *prima facie* evidence of 'over-qualification' for the job:⁵⁶ studies indeed consistently find that many people are over-qualified. A number of UK labour market studies have looked at the qualifications of job-holders in relation to changes, or lack of change, in job content. Over the last twenty years, they find typically that between one-fifth and one-third of graduates are in jobs for which graduate skills are not, or used not to be, required.⁵⁷

This does not mean that the graduate job-holders concerned were irrational to obtain the qualification: on the contrary. As qualification levels rise, the more qualified tend to bounce the less qualified down the skill/wage hierarchy, because qualifications are used by employers as signals of greater intelligence, competence or diligence.⁵⁸ Moreover, many people will and do progress to higher-skilled and higher-paid jobs over time. However, it does call into question the conventional wisdom that the labour market 'needs' or will need more graduates in the immediate future.

Some recent analyses suggest that 'over-education' is on the increase, at least in the UK.⁵⁹ The Office for National Statistics uses the Labour Force Survey and an ILO 'mismatch' analysis to track how many people are in jobs for which they are 'mis-matched' (over or under skilled). Their absolute estimates of 'over-education' are rather lower than for the studies cited above, though it is worth noting that they use a different definition: they compare a job-holder's skills with the current average for their job rather than specifically analysing that job's content. ONS currently estimate that about 15 per cent of the total workforce is over-educated for their current role. They also note that the incidence of over-education has been rising, that it is higher among younger workers, and that the UK has the fifth highest rate of mismatch in an ILO study of 24 countries.⁶⁰ And the OECD's PIACC study (see fig 12) both confirms that this country has an extremely high level of skill mismatch, the fourth highest in the OECD, and that this is largely because of the very large number of over-qualified workers in the English labour force.

Figure 12: levels of under- and over-qualification in the OECD workforce (OECD and England figures shown)



Source: PIAAC 2013 (OECD)

The evidence of widespread ‘skill shortages’ is also much weaker than recurrent complaints from employer organisations might suggest. In 2015, the annual Employer Skills Survey reported that because of the ‘buoyant labour market, skill-shortage vacancies presented a growing challenge for employers’: a report headline announces that the ‘number of skill-shortage vacancies has gone up by 43%’ in a year.⁶¹ However, what this means is that, in 2014, about four per cent of employers had a vacancy which they were finding it hard to fill because of ‘skill shortages’, and in 2015 this had increased to about six per cent.

These figures certainly call into question the argument that there is a generalised ‘need’ for more education in the economy. However, these studies are (of necessity) extremely broad brush. It is perfectly possible to have huge numbers of people doing jobs which were once done by people who were less formally qualified, and still have acute shortages in particular skills and occupations.

Moreover, supply and demand are interwoven. One of the things that will affect employer decisions to invest and expand, or not, is the availability of labour with the skills that are needed. Silicon Valley and Silicon Fen both illustrate this phenomenon very clearly – high-tech and research-intensive industries locate there because of the size and quality of the relevant workforce. Conversely, if an industry shrinks, with near-total loss of specialised skills, it becomes very difficult to reverse this. The next two sections look at some more detailed evidence on demand for specific craft/technician and intermediate tertiary skills, and for full bachelor’s degrees.

Demand for intermediate skills

A much-discussed phenomenon of the modern economy is the disappearance of many high-skill, secure, mid-level jobs, especially those which are associated with the skilled male working class: the

sort of jobs which used to be 'breadwinner' jobs, meaning that they provided wages on which a whole family could live quite comfortably. The hourglass image, referred to above, presents a stark image of the supposed result: a tiny 'waist' growing number of low-wage, relatively low-skill jobs, many part-time, and a large number of well-paid managerial and professional jobs, largely reserved for graduates.

There is some truth to the hourglass image. Levels of shrinkage in traditional occupations vary across advanced industrial economies, in particular because they vary greatly in the size of their manufacturing sector, but the general picture is common to them all. First, manufacturing has shrunk as a share of economic output in developed economies, as labour-intensive manufacturing has moved to lower-wage economies. Second, and equally important, there have been huge productivity increases in engineering, manufacturing and some parts of construction. They can be thought of as the new agriculture: high output, using a tiny fraction of the workforce once needed. Both these changes reduce the number of traditional 'skilled working class' jobs. However, although people who are employed in manufacturing and production industries are a shrinking part of the workforce, they have often done well financially, because of their sector's productivity gains.⁶²

More importantly, in a thorough review of UK (and other) data, Professor Steve McIntosh concluded that, while there had been a steep decline in certain types of intermediate job, notably in production, the idea that we had moved to an extremely hollowed-out, hourglass distribution of wages (and jobs) was wrong. "It is ... not the case that intermediate jobs are disappearing to a large extent. Large numbers of intermediate-level jobs remain, and in addition, due to replacement demand, job openings in these occupations will continue to be created" he concluded and 'intermediate-level jobs remain and will continue to remain, though changing in nature'.⁶³

Take, for example, construction, which remains a very large employer. Most people, as consumers, are well-acquainted with the 'home improvement' end of construction: craft apprenticeships - generally at 'level 3' in current terminology - remain the key route to a very large number of jobs. Indeed, there is consensus that far too few are currently provided.⁶⁴ But this, too, is a sector where, especially in new construction, there are very large numbers of jobs with supervisory, planning, and managerial components: and the steady arrival of new techniques, components and machinery increases the relative number of these, compared to 'hands-on' construction employees.

It is also a sector in crisis, as the recently published 'Farmer Review', confirms.⁶⁵ Box C below summarises some of the key issues with construction training in England today: including the fact that, if you are an able and ambitious young construction apprentice today, you have no clear progression route open to you. This is partly for reasons specific to the industry and its training record: but construction is also an example of a more widespread problem. England today is simply devoid of the network of specialised and dedicated higher vocational institutions that are so important a feature of many European countries. And while the last government made some move to reverse the decline, by backing five specialist 'national colleges' these are currently largely aimed at 16-19 year olds.

Box C. Training in the construction industry

Construction training in this country is the responsibility of the Construction Industry Training Board, which is funded by an industry levy and takes the lead on developing standards and qualifications. Although total apprenticeship numbers grew very fast in the period 2009-15, this was not true of construction. For example, while health and social care apprenticeship 'starts' grew from 18,000 in 2009/10 to 85,000 in 2014/15, construction starts grew only from 14,000 to 17,000: a figure well below numbers in the post-war period. This is not because young people have rejected the sector: on the contrary there is huge excess demand for construction apprenticeships. Post-Brexit, there is now a looming crisis in supply, since, especially in London, a large number of skilled construction workers are from other EU countries. In common with most British apprenticeships, the 'general education' component of these apprenticeships tends to be low compared to other European countries. This has always been true, but is even more so following the 'NVQ' reforms which emphasised accreditation of discrete workplace skills, and resulted in the closure of a good many college construction departments. This in turn makes it harder for young people to progress from craft qualifications to tertiary ones.

Beyond level 3, the CITB does offer a suite of level 4 qualifications (NVQs)⁶⁶ which are 'senior craft' level, highly specialised, and can only be taken by those who are in employment: examples include Wall and Floor Tiling and Tunnelling. There is a single level 5 in 'Controlling Lifting: Planning and Operating Lifts' and then a number of level 6 qualifications in site management and contracting, all of which 'recognise the knowledge skills and competence developed by individuals in the workplace' – in other words, they can be awarded to people who are already competent and experienced, rather than being not designed as a training route. However, in 2014/15 no CITB NVQ awards at this level were actually made; and there were also none in the first half of 2015/16 (the most recent period for which data are available).⁶⁷ A small number of FE colleges offer HNCs or HNDs in Construction and the Built Environment: and otherwise, there are Built Environment BSc degrees (and a few HNDs) at a number of universities.

Wage Returns and intermediate qualifications

As we have seen, on the supply side, there is very little provision for intermediate tertiary education in current English education; and specific skill shortages are very evident in particular technical and craft fields and indeed any occupation with relatively high quantitative skill requirements. A glance at the government's 'shortage occupations' list, for which it is possible to obtain Tier 2 visas for non-EU hires, also confirms that there are genuine shortages in a wide range of technical areas.

But what does more general demand-side evidence tell us? The argument that is made most often, and most powerfully, for expanding university education is income-related. Graduates are paid more (on average) so that must mean that the skills gained from a degree are 'worth' more to employers and the economy.

It is entirely true that graduates are, on average, paid more than non-graduates in England, and, indeed, across the world. It is equally true that a developed economy would be impossible without large numbers of graduates with different types of 'expert' knowledge. What is much less obvious is that wage distributions can justify, or explain, this country's current open-ended support for ever-increasing numbers of full bachelor's degrees, in all subject areas, and its lack of support for other intermediate levels of tertiary education.

There is a large literature on returns to degrees, and in England, the government now devotes considerable resources to collecting data on graduate income, with a view to providing students with very detailed information on an institution and subject-specific basis.⁶⁸ But what about other tertiary qualifications?

In contemporary England, as we have seen, very few young people acquire anything between a 'level 3' (A levels, BTEC Diplomas, craft qualifications) and a 'level 6' degree. Because so few sub-degree tertiary qualifications are awarded, while (as discussed above) a good number of areas, like nursing, have become largely or entirely degree-level in recent years, it is difficult to estimate contemporary English returns to levels 4 and 5.

The best source of information, from the period before successive English governments undermined technical education, is the longitudinal National Child Development Study, which tracks a 1958 birth cohort in detail. This group was educated and entered the labour market at a time when university education was much less prevalent, and when ONCs/ONDs/HNCs/HNDs were much more common. It reached the peak of its career within an economy where higher education was being heavily promoted, and college provision was progressively downgraded in favour of workplace NVQs.

Only 12 per cent of this cohort obtained a degree, while another 11 per cent obtained a higher vocational qualification such as an HNC/HND, a higher RSA award (business/financial), a nursing qualification or a professional qualification pursued through articles. For those employed in 1991 (aged 33), the estimated return to a degree is 19.5 per cent: assuming a three-year degree, this implies an annual return of 6.5 per cent. The return for higher vocational awards is actually higher, since they normally were two year awards: 18.6 per cent, or an annual return of 9.3 per cent. Many of the qualifications that, for this cohort, were two-year higher vocational routes have, today, become degrees, as noted above.⁶⁹

For the contemporary labour market, the most useful data on labour market demand and wage returns to intermediate tertiary awards, come from other countries which retain a clear technical pathway. The OECD publishes highly aggregated statistics on returns to tertiary qualifications, as part of its annual report on education.⁷⁰ The underlying data are provided by member governments and in this case are derived, for most countries, from the Labour Force Survey. Countries use and provide their own definitions and allocation of qualifications to different levels, so data comparing intermediate 'Tertiary B' with 'full' university programmes need to be treated with great care.⁷¹ However, in countries where there is a very clear and well-defined non-university tertiary route, the distinction between 'short' or intermediate tertiary programmes (Tertiary B) is usually very clear from LFS respondents' replies.

The most recently published data relate to 2012 and compare adults' earnings with those who have completed upper secondary education as their highest educational level. Since tertiary education has expanded enormously in recent decades, with far more graduates in the younger cohorts, and since almost every young person in advanced economies is now completing an upper secondary level programme of some sort, this means that the groups being compared are different in size and composition for different age groups. The OECD correspondingly provides estimates separately for 25-64 year olds overall and for 25-34 year olds and 55-64 year olds separately.

Table 5 below shows earnings of young adults with tertiary education, compared to those with completed upper secondary only, concentrating on a group of countries which have very clearly recognised higher vocational pathways, plus the UK. Tertiary A, in this case, includes *all university education at degree level and above* and so incorporates earnings of those with Masters, doctorates, higher professional qualifications etc., as well as those whose highest qualification is a bachelor's

degree (note: these are earnings, not returns, so do not adjust for earnings foregone while out of the labour market studying).

Table 5: Average earnings of young adults with different types of tertiary qualification, compared to those completing upper secondary programmes: selected countries (2012)

(Upper secondary =100)	Tertiary-type B education: age 25-34	Tertiary-type A or advanced research programme: age 25-34
Austria	120	143
Canada	110	133
Denmark	116	112
Finland	118	127
France	126	145
Germany	145	149
Netherlands	134	137
Switzerland	131	135
UK	127	153
EU21 average	122	145

Source: OECD 2016, Table A6.1a Relative earnings of workers, by educational attainment and age group (2012), adults with income from employment.

Austria, Germany, Switzerland and Denmark have highly developed apprenticeship systems as well as dedicated technical tertiary institutions. The Netherlands has fewer (though well respected) apprenticeships and an extensive higher vocational education pathway leading on from upper secondary schooling. France's tripartite baccalaureate system (general, technical, vocational) includes technical options which are designed for progression to IUTs (university technical institutes, from which many progress to a full degree, as with the HND) as well as to a range of advanced vocational awards; Finland has an upper secondary vocational pathway providing access to specialist applied tertiary institutions; Canada has general/universal upper secondary schooling but then a divide between technically oriented colleges and academic universities.

What Table 5 makes clear is that, in countries with well-developed tertiary institutions of a specifically vocational and technical nature, younger respondents (born between 1978 and 1987) who hold short (intermediate) tertiary qualifications generally earn considerably more than their contemporaries with only upper secondary qualifications: and generally earn less, *but not much less*, than those with full bachelors or postgraduate awards.⁷² The average gap between the two tertiary categories for the OECD as a whole, and for the UK, is substantially higher than it is for these countries.⁷³ In Germany, Denmark, the Netherlands and Switzerland the gap is very small indeed.⁷⁴

Overall, both historical and comparative evidence suggest that intermediate tertiary qualifications have strong market value. They are also generally shorter and, within a broad given field – e.g. engineering, IT or business – considerably cheaper. However, England's move to a uniform university system, which overwhelmingly and increasingly offers only bachelor's degrees (and above) may nonetheless be providing English employers with everything they need – albeit at greater cost to both student and taxpayer than if there were more short courses. The next section therefore examines the evidence on English employers' demand for graduate skills.

Wage returns and degrees

As we have seen, successive English governments have signed up to a view of the economy – present and future – in which there is ever-growing demand for ‘high-level’ skills. Such a view seems consistent with the experience of post-World War II generations, who experienced an economic transformation in which more and more people found jobs in a growing office-based and managerial middle class. Most of the new middle classes of 1960s and 1970s Europe (or Japan) were non-graduates, but the current vision is effectively of a continuation of the post-war social transformation, but with a huge graduate workforce.

However, the economic data suggest otherwise. Although the proportion of non-manual, managerial type jobs is continuing to grow, it is doing so much more slowly than in the past.⁷⁵ As we saw above, many graduates are correspondingly doing jobs which in skill terms can be done perfectly well by non-graduates. Earnings profiles tell the same story.

A great deal of attention is focused on the earnings of the top 1 per cent or indeed the top 0.1 per cent, and on how these have pulled away, generating increased inequality. What is less often remarked is that a large group of professionals, senior managers and the like, has done very well. They are largely graduates and holders of advanced qualifications: they form roughly the top 15 per cent of the earnings distribution, and their earnings have drawn away from those of others. Below that level, there has been a general stagnation in wages.⁷⁶ In a society where approaching half of the young workforce has tertiary qualifications – which in England increasingly means at least a full degree – this means that many graduates are not in that favoured group.

We also know that returns to degrees are highly variable, and that this variability has been increasing over time, alongside increases in participation rates.⁷⁷ The University of Warwick’s detailed longitudinal study of transitions into the labour market by recent graduates identified a subgroup doing ‘expert’ jobs which related directly to specific content or skills learned in university. Less than a third of the jobs held by recent graduates fell into this category: those in ‘expert’ jobs were also by far the most likely to be in jobs that were done entirely or mostly by graduates.⁷⁸ Moreover, this is an international phenomenon. The countries with the highest participation rates are currently the ‘tiger economies’ of East Asia, and they are now experiencing dramatic falls in average returns to a degree.⁷⁹

The most recent and extensive evidence for the UK comes from work published in 2016 by the Institute for Fiscal Studies.⁸⁰ While previous work had indicated that graduate earnings, and the wage returns to a degree, varied with subject studied and with institution attended, this analysis was the most comprehensive and robust to date. It looked at earnings in 2012/13 for 260,000 students who started university in the period 1998-2011, and was able to combine individual-level records from the Student Loan Company and from HMRC PAYE and self-assessment databases to get very detailed information on earnings, and relate these to subject, institution and class of degree.

The analyses compared median earnings for graduates in the sample with the median earnings for all non-graduates, again using HMRC data. In other words, the comparator was not a particular educationally-defined group, but all adults who were not graduates. And what it showed was that while on average graduates indeed earn considerably more than the average for non-graduates, this is far from universally true.

Subject studied has a major impact on future graduate earnings. For example, at one end of the scale, graduates of Creative Arts disciplines have a distribution of earnings which is barely higher than for all non-graduates (a group which includes all those with very low education levels). Indeed, at the top end, comparing the 90th percentile earnings in different groups, Creative Arts drops below non-graduate earnings. Among graduates in these subjects from the 1999 cohort, more than half (men and women) were, in 2013, earning below £20,000 a year. Among business and computer science graduates of the same generation, by contrast, earnings were thousands of pounds higher at all points of the earnings distribution than they were for non-graduates. Earnings vary enormously within as well as between subjects.⁸¹

Some of these differences may be the result of differences in the nature of the student intake, of course.⁸² However, when the analysis includes controls for tariff scores (showing academic selectivity) at the level of a specific course at a specific institution, variation is reduced somewhat but the basic findings continue to hold.⁸³

The IFS analysis also confirmed strongly what students at UK universities firmly believe: namely where you study is strongly associated with your future earnings.⁸⁴ In particular, the analysis found that:

- A number of universities are associated with very high levels of earnings⁸⁵: for example, their median graduate earnings, ten years out, are at or above the 90th percentile for non-graduates, and their 90th percentile earnings reach as high as £163,000.⁸⁶
- There were some institutions (23 for men and 9 for women) where median graduate earnings, ten years after graduation, were lower than the median earnings of England's non-graduate population.⁸⁷

We return below to the financial implications of these patterns for a system predicated on repayment of student loans by high-earning graduates. But first, what does this suggest about UK labour market demand in relation to our current institutional structure?

That structure was created by successive governments' conviction that the labour market has a large and growing demand for graduates, with the skills acquired at university, and almost no need/demand for other tertiary courses. But the supply and demand evidence alike cast doubt on this. Countries with sizeable short-degree/upper vocational sectors find that their graduates perform very well in the labour market, at levels close to those of university graduates.⁸⁸ And the English evidence shows that a large number of recent graduates do not seem to be reaping any sizeable 'graduate premium', or using 'graduate skills' in the workplace.

Of course, income data provide only a very partial picture of what is going on. If certain skills are simply not being produced by a system, this may mean there is no demand: but it may also mean that rigidities and blockages create acute shortages which in turn affect which industries decline or simply vanish. To use a real-life example, an English printer who moves his 'high-end' work to Eastern Europe may be attracted by lower wage costs, but also, and critically, by an acute shortage of high-skilled employees in his home city. The high incomes earned by many economics graduates in banking and finance jobs, and by many law graduates, might mean that what we need to do is to produce more bankers and more lawyers. But it might also mean that incomes reflect monopoly power and the ability to extract rent, rather than the major contribution made to national wealth by those particular occupations and individuals.

Conversely, however, the contribution made to wealth, output and productivity may be less than fully captured by wage premia – either individual ones or those of graduates overall. One of the arguments frequently advanced in favour of governments providing major support and subsidies for university education is that there are spillovers for the economy as a whole, over and above individuals' own higher incomes. A high proportion of graduates in an enterprise may lead to higher efficiency: even if many of the graduates are doing jobs which were once done by non-graduates, they may be doing them better. And they may be raising the efficiency of all other workers – a tide raising all boats not just in terms of eventual total output but in terms of colleagues' productivity as well as their own.

Do we have any evidence that this is actually happening?

Graduate skills and economic growth

This argument – that increasing graduation rates also increases economic growth and productivity, to the benefit of all – lies behind much of the willingness of governments to make university expansion a top priority. Higher education, it says, is an engine of economic growth, because graduates' skills, acquired at university, do not just make them personally more productive, but also promote innovation and enterprise wide efficiency. So everything works better.

The latest English White Paper on higher education lies firmly in the tradition of the last forty years. It argues that

“Research indicates that a 1% increase in the share of the workforce with a university degree raises long-run productivity by between 0.2% and 0.5%...Doubling the number of universities per capita is associated with over 4% higher future GDP per capita.”⁸⁹

As for the evidence of increasing variability and falling returns for many degrees, the White Paper is quite clear about that one too. It is the result of “insufficient competition and a lack of informed choice”: in other words, the courses and institutions whose graduates were not doing very well in income terms had done a poor job of educating them. If they had been better educated they would be earning more.

One is inclined to wonder at the government's timidity. If we have such a sure-fire way to increase the productivity of both individuals and the wider economy, why not simply turn every FE college into a university, instantly, and make degree-level education compulsory? But while the spuriously precise numbers invite scepticism (or worse), the argument is far from novel – one of Tony Blair's Education Secretaries, for example, put the pay-off as a “0.5% increase in GDP for every percentage point increase in the number of workers with HE qualifications”.⁹⁰ The basic argument has been accepted and acted on by every British government since the 1980s: indeed, it has been the lynchpin of productivity policy for the UK economy.⁹¹

What does the evidence actually suggest?

The first thing to note is that many of the figures cited as support for on-going university expansion are not actually any such thing: ministers are making far-reaching policy decisions on the basis of figures they do not understand. Far too often, they clearly are confusing *relative* advantage with concrete or absolute productivity and growth.

The statistical techniques which are used to compute wage returns to degrees do so by looking at how much graduates earn, on average, *compared* to people with (typically) little formal education. This certainly makes sense as a basis for individual decisions: will the likely gain from a higher qualification outweigh the costs, both direct and in terms of income foregone while studying? But they make no such sense at national level.

It is perfectly possible for the earnings gap between, say, graduates and those dropping out of education at 16 to remain large or even grow, without actual graduate earnings increasing at all. Further, it is perfectly possible for the relative position of graduates and non-graduates to remain the same, and therefore for the 'graduate premium' to be maintained, in an economy where productivity overall is flat or falling. Not only is this perfectly possible in principle, since these are relative advantages that are being measured, but in recent decades exactly these sorts of developments have characterised the developed economies.

This is most obvious in the United States, although similar trends in pre-tax inequality are apparent elsewhere.⁹² Income inequality in the US has risen a great deal since 1979, alongside stagnating mean incomes. Among men, only those at the top have had any real increases in earned income.⁹³ The top 5 per cent of the distribution went from earning 15 per cent of total incomes in the early '80s to 19 per cent in 2010, but there have also been significant increases in real income for those in the top 15 per cent. Meanwhile the median American *male* worker earned somewhat less in 2014 than in 1973.⁹⁴ Many male workers in the middle of the income distribution have attended, or graduated from college, and still face stagnant wages. And yet the gap between men with just high school and those with college has widened, so that the 'education premium' has got larger. In other words, for many people who attend and graduate from college, a college education is still individually worthwhile because without it they would earn even less.⁹⁵

Most other advanced economies have not seen anything this dramatic. But this is largely because of government action which reduces income inequality, both gross and net of taxes and benefits. The pattern of 'market incomes' generally shows the same growing inequality, from the 1980s through to at least the 2008 crash, with only a small proportion of the population registering high gains in advance of redistribution. From the point of view of the overall economy,⁹⁶ and when evaluating the impact of degrees on that economy, it is those market incomes which matter.

English productivity is certainly failing to show the sort of robust, on-going growth which governments have expected higher education to deliver. As we saw above, participation rates in higher education for 18 and 19 year olds have continued to grow in recent years, just as they have more or less every single year since 1970. We now are pretty much at the 50 per cent participation target set by New Labour: and the graduates who entered the labour market in the early 90s, when there was another big surge, are reaching the peak of their careers.

And yet productivity growth has ground to a halt. Between 1999 and 2006, labour productivity growth in the UK averaged 2.3 per cent a year. Between 2007 and 2014 it averaged 0.2 per cent. In the manufacturing sector, growth averaged 4.9 per cent between 1999 and 2006; then 0.9 per cent from 2007-13.⁹⁷ All over Western Europe, the picture is similar: productivity has stuttered or almost halted, in spite of the most educated workforces ever. Of course, it is impossible to test the counterfactual – that maybe things would be even worse if we did not have so many graduates. But the confident projections which encouraged UK governments to put almost all their productivity eggs into an education basket look increasingly wobbly.

Overall, then, the labour market evidence suggests, strongly, that current English arrangements are neither logical, nor, in all probability, anything close to an efficient use of resources. So what can or should change?

To answer, we need first to understand precisely how we arrived where we are. Chapter 4 therefore discusses in some detail the financial arrangements which have generated our current arrangement. Chapter 5 (by Peter Sellen) takes our current situation and explores what is likely to happen under current and likely future arrangements: namely a continued serious deterioration in the financial underpinnings of our tertiary system. Chapter 6 then proposes reforms which could shift the system back, gradually, to a financially sustainable, more efficient and more equitable system. It argues that the only reliable way to do this is through a *uniform and unified tertiary funding entitlement for all adults, which they can use when and as they like*.

Chapter 4. 'It's the money, stupid': how funding drives tertiary enrolments

To recapitulate, English, publicly-supported tertiary education at bachelor's level is characterized by

- a large and growing number of universities
- a growing number of 'alternative providers'
- a further education sector whose (very small) share of student numbers is stagnant
- rising participation rates for 18 year olds and rising student numbers

Tertiary education at below bachelors level (e.g. foundation degrees, HNDs, higher diplomas) is characterised by:

- a small number of students and qualifications
- declining numbers of qualifications financed in FE through the adult skills budget
- declining numbers of sub-degree qualifications in universities
- emergence of an 'alternative providers' sector offering some sub-degree tertiary qualifications
- a small number of STEM qualifications, and a heavy concentration of business qualifications

How did we get to where we are? The obvious answer is 'Government funded it this way' and of course that is correct. Ours is, in its essentials, a public tertiary system, supported largely by the taxpayer: and it derives from ministers' funding decisions and government's financial architecture.

However, this final outcome is not the result of deliberate, well-designed policy which was fully understood by its creators. On the contrary. As we have seen, there has been a deliberate policy, by successive governments, to promote university growth and participation levels. Yet these same governments have also, quite sincerely, lauded the role which technical skills can play in the economy; the potential importance of intermediate qualifications such as foundation degrees; the importance of part-time students - and the need for efficient use of resources. The current system promotes none of these.

We can predict, confidently, that if current policies are maintained, then 5 and 10 years hence, England will be producing even more full undergraduate degrees, in absolute and relative terms, and even fewer intermediate technical qualifications than at present. We can also predict that the result will be huge costs for both the taxpayer and for students carrying loans for university study.

Funding undergraduate degrees

Undergraduate education for 'home' students tends, throughout the developed world, to be funded through a combination of government grants and student fees. There are some countries where there are still no direct tuition fees (e.g. Germany, the Scandinavian countries, Scotland) but most now make at least some charge.⁹⁸

England is now one of the countries which levies very high tuition fees and since 2010, the 'home' fee payments received by universities have tripled in real terms, while direct grants for teaching have more than halved.⁹⁹ Fees have risen rapidly from £1,000 at the turn of the century and from 2017-18, universities can charge up to £9,250 for a year of full-time study on a 'designated' higher

education course (degree or level 5). Fees are capped at this level for any university which wishes its home (EU) students to be eligible for a full government-backed loan, with the exception of 'alternative' institutions.¹⁰⁰ They can charge more, but their students can only access £6,000 a year in loans.

High tuition fees were expected by many to result in lower participation levels, especially among young people from poorer families. Surveys and studies in advance of the change consistently found large numbers of young people saying that they would be deterred by loans. Yet, as we saw in chapter 2, the participation rate of 18 and 19 year olds has in fact continued to rise, and so has the representation of students from lower-income families.

Incorrect predictions of universities' responses were also common. Labour's Charles Clarke, as the relevant secretary of state, believed there would be price competition when, from 2006/7, universities were allowed to charge up to £3,000 a year for degrees. There was none: everyone charged £3,000. Under the 2010-15 Coalition, it was the turn of David Willetts, as the minister responsible, to believe and announce publicly that there would be price competition once £9,000 a year became the upper limit. In fact, in 2015-16, only 7 out of all the 120 universities in England and Wales offered any undergraduate courses at all at less than £9,000 a year (Complete University Guide 2016), and then it is only a few per institution. In 2017-18, we know that 121 of the 124 'full' higher education institutions – those potentially involved in the Teaching Excellence Framework – will be charging the new maximum £9,250 rather than £9,000 for at least some of their courses.¹⁰¹

Why were many people so bad at predicting their own and others' behaviour? Partly because rising enrolments and the decline in alternatives to university meant that individuals felt that a degree had become the only rational choice. But also, in ministers' case, because they misunderstood the effect of the funding systems that they themselves introduced.

Income-contingent loans

At present, in addition to permitting English universities to charge fees which are high compared to most other OECD countries, the English government operates a loan scheme for student fees (and maintenance) whereby it shares risks with home students, and reduces their interest costs. Loans are made and administered by government though a singly publicly-established intermediary (the Student Loans Company) and reflect the government's own ability to borrow. It can provide almost limitless credit to students, and lend at much lower interest rates than would be the case for any private institution – though how much lower a rate it charges is, of course, a political choice.¹⁰²

Borrowers who take up this option only start to pay back their loans when their income reaches a set level, and after 30 years any outstanding balance is written off. This means that an individual whose income in adult life falls short of expected levels is protected. Supporters of the approach predicted that young people would, under this approach, be very willing to pay high fees: and they were right. A student may opt to pay the fees to the university directly, but any home student may, and the overwhelming majority – over 90 per cent – do take out a loan from the Student Loan Company, which then pays the institution.¹⁰³

There is also, equally importantly, a belief that individuals should contribute to the cost of degree-level education because gaining a degree brings direct individual wage benefits. It is generally assumed that, for most people, future earnings will be raised by considerably more than the cost of

the loan, including interest.¹⁰⁴ Thus, while risk is shared, and low earners are protected, overall the student body is expected to pay back the money advanced, which has been used for their private benefit.

Most economic analyses of tertiary education argue that benefits in fact extend beyond the individual student's private gain, and that there are broader 'externalities' for society as a whole. The student and society should therefore share the cost.¹⁰⁵ However, the current English system implicitly assumes that this is only true for a limited number of subjects – mostly 'STEM' (science, technology, engineering, mathematics), for which there are still some direct government grants.¹⁰⁶ For other degrees and courses, the fees are expected to cover the full teaching costs of the degree.¹⁰⁷

While the principles of income-contingent repayment are clear, the actual debt burdens – and the amount that the government can expect to be repaid – depend on the details of the loan, whose current status is shown in Table 6. Under the English system, the following are critical:

- When you start repaying
- Whether and when the debt gets written off
- The interest rate charged on outstanding debt
- The amount repaid at different levels of income once you reach the repayment threshold

It is important to note, however, that, unlike any private body, the government is at liberty to vary any of the terms and to do so not only for future loans, but also retrospectively, for loans taken out under different conditions. Indeed, it has already done so, just six years after the new loan terms were arranged.

Of course, the larger the loan, the more people will fail to repay it all. As we shall see, in practice we can expect that a very large proportion of the current student loan book will not be repaid under current, or anything close to current conditions.

Table 6: Current student loan conditions in England

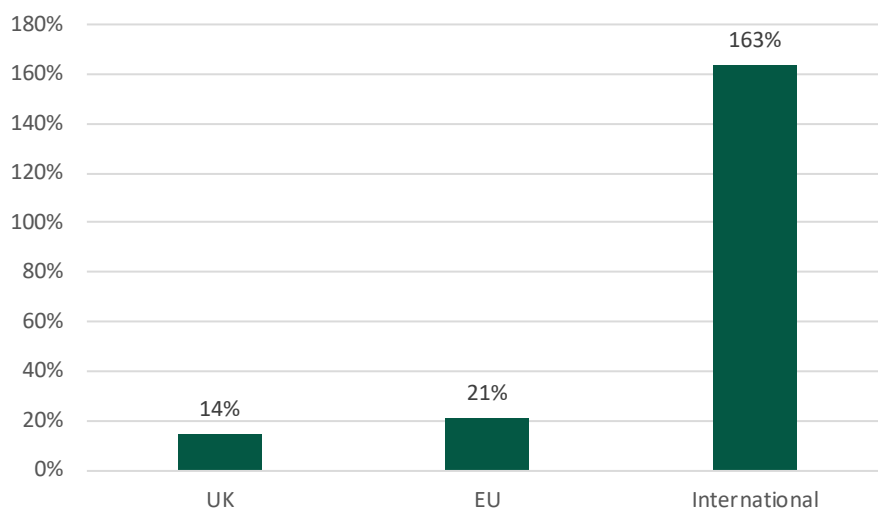
Loan condition	Current provision (2016/17)
Threshold for repayments to start	No repayments required until borrower earns £21,000 a year. It was originally announced that this level would be indexed to earnings inflation, but it has instead been frozen to 2020/21.
Debt written off	Any outstanding debt not repaid 30 years after completing/leaving study is written off
Repayment rate	9% of all income over the threshold (currently £21,000) is paid to the Student Loans Company
Interest rate	The interest charged on outstanding balances ranges from RPI (if the individual earns up to £21,000) to RPI + 3% (if they earn £41,000 or more)

The systems which most resemble England's are those of Australia (the first to introduce an income-contingent, government-backed system), and New Zealand. These nonetheless operate with higher levels of direct government support for teaching. Both Canada, and the public universities and colleges of the US have well-developed loan systems but without the universal 'income-contingency' element of the English. Other countries operate with a very wide mix of approaches: in some cases, there are no private universities and public ones charge no fees to home students (e.g. much of Scandinavia, and Scotland, other than for English, Welsh and Northern Irish students). In others, private universities recruit large numbers of young people, alongside public universities, but with the bulk of government subsidy confirmed to the public sector (e.g. Poland, much of Latin America).¹⁰⁸

Universities' incentives and response

From the 1980s onwards, the continuing expansion of student numbers had put UK university budgets and quality under great strain, as successive governments increased total spending but decreased spending per student.¹⁰⁹ A major decline in the number of teaching hours that students received, and the movement from small tutorial groups and classes to mass lectures, took place in most English universities in the late twentieth century, and reflects the decreasing level of per-student funding made available by central government. Only the sector's success in recruiting huge numbers of overseas (non-EU) students paying unregulated and high fees (Figure 13 below) allowed it to maintain its international position.¹¹⁰ The government's decision to maintain a fee cap, but increase it to £9,000 a year, transformed the finances of English universities.¹¹¹ The combination of the high fee and the lifting of the cap also transformed incentives in, and the structure of, the sector.

Figure 13: Proportionate growth in undergraduate numbers (by undergraduate domicile): English universities 1999-2014



Source: HESA

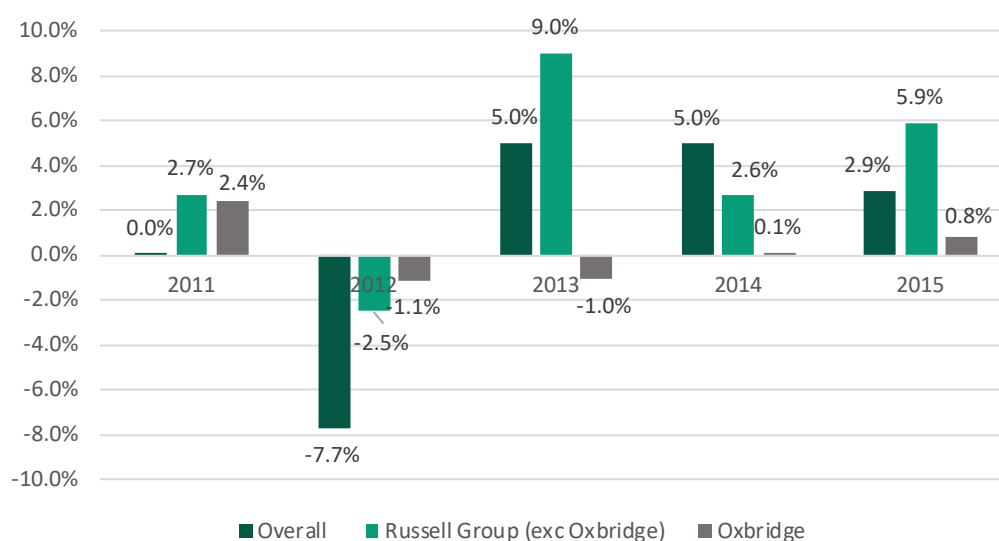
The introduction of fees (first £1,000 a year, then £3,000) by the Blair governments was a recognition of the stress created by the move to a mass system. Government paid a sizeable amount per taught student on top of the student fee: nonetheless, until 2010, 'home' students, from the point of view of a university finance officer, barely paid their way. However, fees of £9,000 offered a substantial increase in the resources that each home student brought to the university that recruited them, even with the cut-back in the teaching grant, and the accompanying requirements for bursaries and widening participation activity.¹¹²

The system into which fees were introduced was, in key respects, a centrally planned one. As noted earlier, universities received set allocations of centrally funded places. They could compete for better (i.e. more highly qualified) students – thus raising their prestige and the price they could charge in the unregulated international part of the market.¹¹³ But they could not, prior to the 2010-15 government, expand their home undergraduate numbers at the expense of other institutions. With no shortage of overall demand, there was no reason whatsoever to charge fees below the maximum allowed.

The Coalition's belief that they would see price competition, even though this had not happened when £3,000 fees were introduced, did have some underlying rationale, because ministers were also, at the same time, moving to allow institutions to recruit increasingly freely. At first, this involved only a very limited degree of competition: each institution was still, in effect, guaranteed a minimum number of funded home places. Now, as noted earlier, this has changed. Institutions can recruit as many home students as they choose; any 'home' student accepted by a higher education institution to study on a designated course automatically has the right to an income-contingent loan; but there is no 'floor' guarantee, and an unpopular university simply declines in size. However, and crucially, **there are no formal academic requirements whatsoever for home students' admission to an English university or 'alternative provider' of higher education, or access to a loan for course fees.**

This means that the sector has a very strong incentive to increase total enrolments, and few barriers to doing so. Figure 14 shows some of the resulting and recent changes, using UCAS figures, which capture most, though not all, applications from 'home' undergraduates. What we can see is that the more prestigious universities (many of which are in the Russell group) have increased their share of home undergraduates markedly. However, there are differences within this group in the degree to which they have embarked on rapid growth. Oxford and Cambridge, notably, have decided to maintain their distinctive nature and not to grow: expanding student numbers is relatively less attractive for them because of their endowments and extremely high research income, and undoubtedly helps Oxbridge maintain its position at the top of the prestige pinnacle.

Figure 14: Evolution of UCAS acceptances by group of university, percentage change, 2011-2015



Source: UCAS

Expansion and competition for enrolments were (and are) entirely predictable and rational under this regime. But why was there no competition on the basis of fees?

There might conceivably have been, if cohort size and total applications had fallen so precipitously that many places were left empty. But that was not the case – and even if it had been, it is questionable whether it would have led to many institutions reducing their fees.

Why? For three main reasons:

- **higher education is characterised by endemic ‘excess demand’ for the most prestigious institutions**, which are rightly seen as having degrees which are ‘worth’ more in a variety of ways. These institutions will therefore charge the maximum they can in a capped system.
- **prospective students have very little clear information on the quality of institutions.** Although recent governments have tried, and are trying, to provide more data, indicators such as the National Student Survey are (rightly) criticised for both a lack of validity. They are also unstable, producing repeated large changes in institutions’ relative position. Students are also perfectly aware that general reputation matters to employers, as does the networks they form while studying. In this environment, as research confirms¹¹⁴, price signals quality. An institution which charges little is signalling that it is not getting many applicants, and so is not worth much, and worth a lot less than ‘top’ universities: and in a system of income-contingent loans, it makes no sense to choose a cheap university with a ‘low quality’ signal
- there are very few known ways to make university education more ‘efficient’ – i.e. to deliver the same quality of education for less money. No one has yet developed a model of effective teaching which is not highly dependent on individual teachers’ time. **Charging less than the maximum means having less money for good staff, or small classes, as well as less for facilities.**

But what happens when central planning stops, and universities can recruit as many as they wish? Does that change the incentives? In our current English system, barely or not at all. Because previous governments decided, back in 1992, to ‘unify’ the sector, all universities face the same financial choices and opportunities, and will converge on maximum fee levels.

If you are an English university with many more applicants for places than you can fill, obviously it makes sense for you to charge the most you can. ‘Income-contingent loans’ mean that our whole system has ‘needs-blind’ admissions. No one has to pay their fees themselves, up-front. No one is denied access by the family income. No one will be bankrupted if they don’t, in the end, earn much, or leave the labour market altogether – on the contrary. So charging less than the limit would be a bizarre decision.

And if you are not over-subscribed? Might not a ‘recruiting’ university, finding it hard to fill some of its places, or facing declining enrolments, see lower fees as a useful recruiting tool? After all, debts are debts, and lower debts might attract some good candidates?

The answer is still no.

- First, if you have lower fees, you will also have less to spend. From the point of view of any individual university, lower fees simply mean fewer resources, and less ability to ‘do’ a university education well.

- Second, we know that a higher price is recognised and treated as an (imperfect) indicator of quality in itself.¹¹⁵ For universities which are losing numbers it makes much more sense to increase recruitment efforts and bring yet more people into the degree fold than to cut prices.
- Third, in England today, the price level will not be a major consideration for many prospective students. The combination of a maximum level of fee, access to an income contingent loan on a once-in-a-lifetime basis, and reasonable confidence that university will probably 'pay' makes it entirely sensible to choose by quality, not by price. Annual repayments are a fixed proportion of income: so the only possible impact of, say, a £1,000 reduction in fee would be that some people who currently do not repay in full would do so, and that some others would finish paying off their loans somewhat earlier. Moreover, this marginal impact is likely to occur in people's late 40s, long after the early years of labour market entry when degrees are most likely to have a major impact on life-chances.

When making the crucial decisions, the impact of somewhat lower (or higher) fees will therefore be heavily discounted. That is illustrated by the responses of graduates to an NUS survey of the first cohort to graduate under post-2012 fees.¹¹⁶ 77 per cent were 'worried' or 'very worried' about their student debt, but only 5 per cent stated that they would not have gone to university at all if they could make the decision again.

In understanding the current system, it may also help to look at the choices as they appear to a contemporary 18 year-old. They are set out in Table 7, in stylised form, as they appear to anyone with a standard 'level 3' upper secondary qualification – either A levels or a BTEC Diploma. And they demonstrate that, unless governments either change the relative financial incentives, or – very implausibly – make it harder to complete these upper secondary qualifications, then the 'obvious' choice will stay the same. For the overwhelming majority of those completing a full sixth form, classroom-based programme, an expensive university-based undergraduate degree will remain the obvious, default choice.

Table 7: An 18 year old's decision

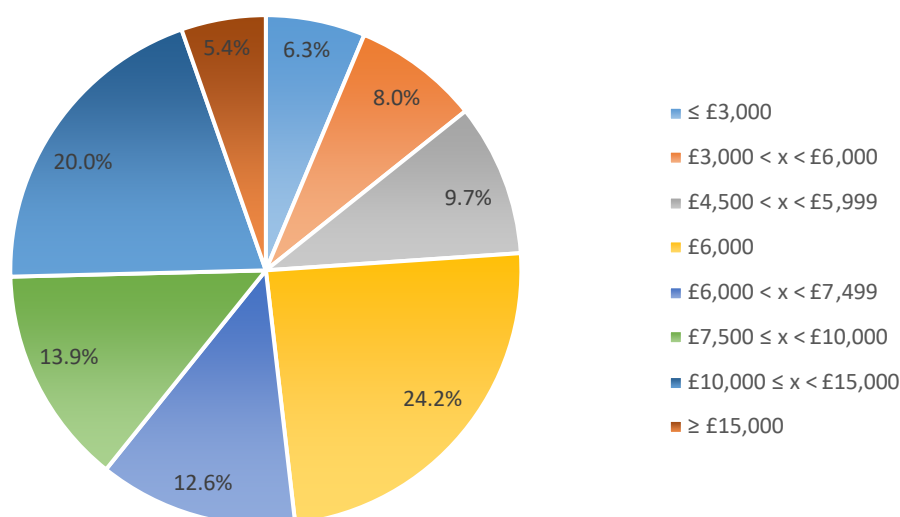
	(1) Take student loan for full degree at top price and highest-rated institution possible	(2) Look for a sub-degree qualification which will cost less	(3) Look for a job
Choose this option	High probability it will 'pay'. Maximum number of possibilities post-graduation. No serious risks as loan is income-contingent.		
Reject this option		Very little on offer and why pass up on a once-only loan offer for a full degree?	Earning would be good but more and more employers want a degree, might as well play safe

The current government believes that encouraging new entrants and ‘alternative providers’ will create both innovation and price competition. But the development of this sector confirms that current financial incentives create highly uniform and predictable responses. Simply making ‘entry’ easier is extremely unlikely to reduce costs to either individual applicants or the taxpayer.

As part of its current work on higher education, the Education Policy Institute has surveyed the provision and fees in the current alternative provider sector. Alternative providers who do not have degree-awarding powers are the main institutions currently offering HNCs and HNDs, which are available to them through an external awarding body.

Students in this part of the sector who are taking designated courses (HND/HNCs, foundation and bachelor’s degrees) currently can only secure £6,000 a year in income-contingent loans from the Student Loan Company. For the 1020 courses in the alternative provider sector listed on the HEFCE register in February 2016 and analysed by EPI, *£6,000 a year is duly the modal price, and fees are highly concentrated around the £6,000 level* (the average is considerably higher because of a few high-price and well-recognised institutions, which are degree-awarding universities already. These ‘top’ alternative institutions can charge fees which are well above both the average for the AP sector, and the fees for home students in mainstream institutions).¹¹⁷ The subject mix in the AP sector, also reflects the relative costs (and potential for profit) under current funding conditions. As we have seen, the overwhelming majority of students are in business, humanities or other classroom-based subjects.

Figure 15: Tuition fees charged by Alternative Providers



Source: EPI's compilation from AP websites and HEFCE

Funding tertiary education in further education

Funding rules and conditions explain the way universities have developed over the last few decades. They also explain why, in the further education sector, tertiary level provision has largely stagnated or fallen. Many colleges do have some degree level provision, funded through conventional HE

mechanisms and validated by ‘full’ universities (who charge a sizeable fee for their activities), and a tiny number now have foundation-degree awarding powers of their own. However, there has been no significant growth in FE-based degrees in recent years. And Level 4 and 5 courses leading to technician-type level 4 and 5 qualifications have meanwhile been in decline from an already tiny base.

Why is this? It is indeed in large part, and very simply, because of funding. Colleges have focused on the provision that the government wished to buy: and this has been – at adult level – low-level qualifications which would contribute to successive qualification targets.

In the past, when most post-school provision (other than universities) was run by local authorities, there were subsidies for a wide range of general interest courses, offered through ‘community’ education programmes. From the early 1990s, when funding was centralised, these shrank dramatically because education policy was increasingly a function of supposed economic benefits (or lack thereof).¹¹⁸ Funding was increasingly confined to courses and activities with supposed direct vocational relevance, and payments were made on the basis of individual qualifications, each with its own price-tag, and with much of the funding ‘by results’ – i.e. paid only if and when the qualification was passed.¹¹⁹

As a way of generating formal qualifications, the system developed by the Skills Funding Agency and its predecessor bodies – the Learning and Skills Council and the Further Education Funding Council – was hugely efficient. An efficient and successful ‘provider’ maximized numbers enrolled and pass-rates, and focused on awards which were cheap to deliver both in absolute terms, and relative to the price paid by government.¹²⁰ People born in 1958, and tracked in detail through one of the country’s major longitudinal studies, were in the labour force for all the successive policies which promoted low-level adult vocational awards, often with national quantitative targets attached. By the age of 50, a full 71 per cent had at least one additional qualification acquired as an adult (23+).¹²¹

Alongside this payment-by-results system, there was a complex system of entitlements, which determined what was offered free to students, and what they would have to ‘self-fund’. For example, for many years, individuals were only entitled to one ‘free’ full level 3 qualification across their lifetimes. Sometimes, low-level literacy and numeracy qualifications were free, while higher-level ones were not (GCSE Maths and English became free for adults only in 2011, for example, when Downing Street insisted that the money to offer this be found from the skills budget).

In this environment, FE colleges were at liberty to offer level 4 and 5 technician-level courses to students, as some did and do, notably in areas with strong industry demand and no nearby university. However, the government provided virtually no direct incentives for them to do so.

Level 4 and 5 provision was and remains a high-risk strategy for college managers. There are three major reasons for this.

First is the lack of any transparent national qualification structure for sub-degree tertiary awards.

On the academic side, we have had, for many decades, a very clear set of national awards. Adults know about A levels, they know about degrees, they know about universities. But on the technical side, we have beaten a retreat from the 1970s without replacing it with any recognised or stable alternative. HNDs and HNCs, as we have seen, have gone into steep decline: the myriad level 4 and 5 awards which have been formally approved mostly languish on central registers unrecognized, and

taken by no one. Individuals are hardly going to turn up at the college gate, asking to enrol for unknown qualifications with no national profile.¹²²

Second, in contrast to low-level provision, there is no guaranteed stream of adult students provided through government programmes. Many adult students, in FE and even more those registered with private providers, were and are sent for low-level and short courses in conjunction with labour-market policies for the unemployed, or by charities working with immigrants and refugees who needed literacy and language help. There is no comparable source of subsidy, or guaranteed large-scale demand, for technical courses at levels 4 or 5. Although there are a number of high-quality local links between employers and colleges, these are on a very small scale – as is all too evident from the qualification statistics. And there has been relatively little incentive for ‘validating’ universities to encourage growth off-campus; and also little incentive for most students to study at college rather than in a full university.

Third, there is the overall payment regime. There is nothing in principle to stop colleges setting up level 4 and 5 technical courses and charging fees for them. But setting up new tertiary courses is an expensive business, and there has been very little targeted funding or seed money for this. Moreover, the financial rules for further education have changed constantly in the last 25 years, often every year.¹²³ This has created a strong disincentive to undertake any complex initiatives which had high start-up costs, and would be financially self-sustaining only after a substantial period of time.

In contrast, for higher education (including foundation degrees), there have been very clear rules ever since the 1950s: rules which determined what could be charged, how much came from the student, how much came from other governmental sources (central or local). While the system has also changed on a number of occasions, notably in the move to loans, the rules have always been clear and few in number, and have always involved large subsidies. And universities have not been paid by results.

The recent negative impact of adult learning loans on FE tertiary provision is explained by, and encapsulates, these barriers to tertiary provision. Government thinking, in recent years, has in principle favoured a more unified approach to adult funding: a decision which is entirely reasonable and with which this monograph strongly agrees. However, what this has meant in practice is that colleges were required to charge for higher level qualifications which they had previously been able to offer free, or for a nominal amount. Individuals could then either self-fund, or obtain an Advanced Learning Loan on terms similar to those offered for degrees in higher education institutions.

Advanced Learning Loans were introduced in 2013/14 for adults aged 24+, and for courses levels 3 and above, and their coverage and availability is being expanded.¹²⁴ As Table 2 above shows, they are the only part of the mainstream college budget where any real growth in funding is projected over the next few years. In higher education, loans have had no impact on enrolments, with numbers and participation rates both continuing to grow. But in further education, **the introduction of Advanced Learning Loans is associated with a near-halving of enrolments at level 4.**

Central government’s current indifference to non-degree tertiary provision is manifest in the fact that these drops were apparently predicted by some central government officials and apparently also seen as of no great concern.¹²⁵ One must assume that officials and ministers expected the drop

to be temporary, and that the cumulative increase in the amount set aside for these loans is a financial commitment made in good faith.

In fact, on current trends, a continued gulf between use of loans for degrees and use of loans for other tertiary qualifications seems more likely. In 2013-14, £115.8 million was paid out for advanced learning loans. This was the first year – but in 2014-15 only a little more, £149 million, was taken up, out of the £397m allocated. Moreover, 94 per cent of the loans were for adults taking qualifications at level 3 and only 6 per cent for level 4.¹²⁶

And why the difference between loans in HE and FE? As we have seen, young people and adults recognise economic realities, and what is rational for them: so the difference must surely lie in real differences between the sectors. And indeed, in one we have a very clear and well-understood national system of tertiary qualifications, and in the other we do not. In one we have a simple and transparent subsidy, fee and reimbursement system; in the other we do not. Until this changes, it will continue to make sense for the individual, though not for the country, for tertiary demand to soar in the university sector, and atrophy at sub-degree level.

Where next? The effect of current incentives on future tertiary provision

The Higher Education bill which is currently being debated by Parliament has, as one of its major objectives, the opening of many more universities. As noted earlier, it proposes to make it much easier and faster for a new institution to obtain a full university title and degree awarding powers. The expectation is that many alternative providers, who currently have their awards validated by others, will become full universities, as well as more new ‘entrants’ appearing. The reasoning behind this move is that there will be greater competition for students and that as a result there will also be more innovation, more short courses, and, at last, price competition.

This is, alas, enormously unlikely. Exactly the same conditions and incentives will apply to new universities as to old ones. Any student on a designated course will be able to access an income-contingent loan for the maximum fee level allowed. So charging lower fees, and competing on price, will signal lower quality and also reduce the amount of money with which to provide good quality courses.¹²⁷

Moreover, as discussed earlier in this chapter, there is every reason to believe that the providers who offer Pearson’s HNC and HND qualifications do so largely because they are not (yet) able to award their own degrees. Short foundation degrees attracted universities only for as long as they were the only way to obtain additional funded places for home students, after which they dropped them: and current HND and HNC provision reflects similar funding incentives. We can therefore expect a further decline in sub-degree award numbers. We can expect most of this growth in new institutions to take place in low-cost Business and related degrees. And there is no reason to expect more part-time students.

FE-based courses, meanwhile, will continue to be financed from a centrally set and capped budget which must be shared with courses offering lower-level qualifications and which is not expected to grow over the term of this parliament. For the management team of a college, the structure of adult skills funding, and the relatively low levels of funding per individual course, has for years mandated a strategy that is clearly reflected in the qualification figures. £80 million pounds has indeed been made available – from this year – to support the development of National Colleges which are

intended to develop high-level specialist skills. But only 5 have been approved and much of the emphasis here too is on 16-19 year old learners.

We are, currently, in a position similar to that of Australia, a few years ago, when it also embarked on open enrolment ('demand-led enrolments') for universities, supported by income-contingent loans. In the last few years, Australian enrolments have duly rocketed. Higher-ranked Australian universities have expanded (as have Russell Group universities here). Lower-ranked Australian institutions have also responded energetically, recruiting aggressively and progressively lowering their entry standards (but not their fees). An increasing proportion of school-leavers have entered degree programmes, largely in relatively low-cost, non-STEM generalist degrees (business and commerce) but also in specific programmes (notably teacher education) where there will clearly be a large over-supply as a result. **In Australia, the number of entrants with very low academic credentials has grown considerably. And as university student numbers increase, enrolments in 'TAFE' (Technical and Further Education) have plunged, leaving the sector as a whole underfunded and increasingly fragile.**¹²⁸

There is, however, one major difference between our emerging system and Australia's. Their fees are lower, because government subsidies remain higher, and fee caps lower. Our system, in contrast, is now generating extremely high levels of debt for young people entering a difficult job market and an even more difficult housing one; and also creating financial obligations for the taxpayer whose scale has not been grasped properly by any but a few policy wonks and officials.

The argument in favour of our current income-contingent system is that students should pay for their education, with the government sharing risk and helping to smooth payments. But because we have created a system where almost all tertiary education involves 3 year degrees at £9,000 a year, we have also ended up with a hugely expensive and unstable system – and one which is set to go on growing, at enormous cost to all concerned. Chapter 5 explains and elaborates on likely developments under current plausible scenarios: and, in chapter 6, we then identify policies which would allow a change of direction, away from the precipice.

Chapter 5. The public costs of higher education: why the nature of expansion matters

By Peter Sellen

England's income-contingent loan system helps people overcome credit constraints in their pursuit of studies whilst ensuring that those who subsequently earn more pay more back. This is progressive in a distributional sense (higher earners pay more), and it also cushions borrowers against the financial impacts of unexpectedly low earnings in a given year. With government better able to shoulder individual risks across an enormous portfolio of loans, this provides, arguably, a fairer approach than a mortgage-style loan system. This could pay great dividends if, as assumed by the Government, these investments in skills produce strong economic returns.

However, we have seen that these dividends are far from guaranteed. The extent to which university study actually improves the earnings prospects of current graduates will be imperative to containing the long term Exchequer costs, but as we saw in chapter 4, returns to degrees are not always high. The analysis of this chapter demonstrates the scale of these financial risks. It quantifies the potential savings if we avoid increasing uptake of full degrees that do not offer strong long term returns, and the potential costs if we do not; and identifies the opportunities and financial rewards from better targeting support for tertiary education.

Quantifying the public cost of the student finance system

The increase in the maximum undergraduate tuition fees for home students to £9,000 in 2012/13, combined with a less-than-equivalent reduction in teaching grants, increased the annual resources available to the higher education sector of over £1bn.¹²⁹ The well-publicised increase in graduates' debts gave many the impression that the balance between public and individual funding of studies had been fundamentally changed. As explained by numerous observers, though, the income-contingent nature of the repayments and generous terms meant that whilst the balance has been changed, there is still a significant amount of public subsidy involved in funding tuition costs.¹³⁰

It is the long term costs of student loans, both for tuition and maintenance, that will figure increasingly in future higher education policy and expenditure discussions. Financing student loans means that government borrowing increases, both in the short and long term, because not all loans are going to be repaid. In fact, **the majority of graduates are expected not to finish repaying their loans before 30 years have passed, at which point the balance of their loan is written off.**

The long term costs of loans to the Exchequer (and taxpayer) are usually expressed via the concept of a 'Resource Accounting and Budgeting' (RAB) charge. This can represent the amount (or proportion) of the initial loan outlay the government expects not to get back in 'present value' terms. In this calculation, future repayments are deflated to current prices (using an inflation index) and discounted. This discounting reflects the fact that an amount of money received later is worth less than an equivalent payment received now, which could be invested for a return.

The RAB charge quantifies the two types of government subsidy involved in providing student loans: (a) an interest rate subsidy to reflect that student debt does not, on average, attract as high an interest rate as the Government is paying to finance the loan; and (b) a write-off subsidy to take into

account the fact that many loans will not have been repaid by the point at which repayments cease being due (after 30 years).¹³¹ The Institute for Fiscal Studies (IFS) has shown that changes in tuition costs of a few hundred pounds per year could increase RAB charges sufficiently to bring the long term levels of public subsidy back to the levels of the previous system, taking into account the remaining teaching grants and support packages for broadening higher education access.¹³²

Box D: Discount rates, student loans and the RAB charge

The appropriate discount rate to apply in calculating RAB charges can be linked with the long term cost of borrowing faced, in turn, by the issuing authority – in this case government. Originally, the RAB charges for 2012/13 undergraduate student loans were calculated using a 2.2 per cent discount rate, generating initial estimates of an average 28 per cent charge on loan outlays. Revisions to the forecasts of graduate earnings subsequently raised this to 45 per cent.¹³³ In 2016, after observers highlighted how much lower the borrowing costs for long term government debt associated with assets that are implicitly linked to inflation (with repayments determined by nominal earnings) should be, the discount rate was lowered to 0.7%.¹³⁴ Correspondingly, the headline RAB estimate fell to “between 20 and 25%”.¹³⁵ All of this highlights that changes in assumptions can have huge impacts on the estimated cost of providing student loans.

The technical treatment of student loans in the public accounts is complicated. A full description is not given here, but some key features highlighted recently by the Higher Education Policy Institute are important to note:¹³⁶

- With loan outlays generating an asset which provides a stream of future income for the Government, they are not treated as current spend and do not contribute to the official budget deficit estimate.
- Student loan payments do, of course, require cash, so in the normal way they can contribute to the build-up of public debt. In calculating current Public Sector Net Debt (PSND), expected repayments are not taken into account in the assessment of the Government’s assets and liabilities because they are considered too illiquid. However, the Office for Budget Responsibility publishes forecasts of the student loan book’s addition to net debt which do take them into account.
- In the course of fiscal planning (e.g. at Spending Reviews), the Department for Business, Innovation and Skills were, and the Department for Education now will be, allocated a charge in their accounts to recognise (1) the long term costs of providing new loans in a given year (new impairments); plus (2) any revision in expectations for repayments and write-offs of existing loans (a ‘stock charge’). The total annual charge is treated as part of the relevant Departmental Expenditure Limits (DEL) and a facility under Annually Managed Expenditure (AME), so the anticipated long term cost and not the annual net cash flows from loans are what matters in spending rounds. If expectations for repayments of existing loans change, the Department is required to ‘charge’ the cost of this to subsequent annual budgets. In other words, for a given Departmental settlement, the RAB charge on new loans *and* downward revisions in future repayment expectations can have an *immediate* effect on the resources made available for wider expenditure on education.

The previous Department for Business, Innovation and Skills (BIS) published online a ‘ready reckoner’ student loan repayment model – a simplified version of the full model used to provide the Office for Budget Responsibility (OBR) with forecasts of the net costs of the student loan book. This can be used to estimate RAB charges under different policy scenarios, using a set of pre-populated profiles for hypothetical graduates’ earnings (over 35 years after graduation), investment income and early

repayments.¹³⁷ These profiles were estimated by BIS using statistical modelling based on student finance data and previous panel surveys; they, in effect, represent the Government's published assumption of the earnings prospects for graduates on which RAB charges are estimated. Other 'frictions' such as failures to ensure graduates make payments they owe, or permanent disability causing a loss of earnings, are taken into account.¹³⁸

In the following analysis, the Education Policy Institute has used an adapted version of the model to highlight some pertinent features of the system, and the likely implications of current tertiary policies, as compared to possible reforms. Our scenarios take into account the latest OBR forecasts for inflation and earnings, recent repayments policy changes (freezing thresholds), and this year's reduction in the discount rate.¹³⁹ These simplified scenarios do not represent comprehensive forecasts of RAB costs and will not align precisely with Government estimates; a comprehensive analysis of the sensitivity of the student loan system to various factors is given by the IFS.¹⁴⁰

Expanding higher education now has significant and uncertain financial implications for this, and future, governments

The Government is anticipating a large increase in entry to higher education, is extending loans to more courses (notably at postgraduate level), and replacing maintenance grants with loans. This will hugely expand its balance sheet. The OBR's Economic and Fiscal Outlook of March 2016 featured an assumption that the entry rate for young people will rise by around 3 percentage points every year to 2020-21 (the end of the forecast),¹⁴¹ and predicted that gross cash outlays for student loans in England will increase from £11.9bn in 2015-16 to £21.2bn in 2020-21.¹⁴²

Due to demographics, the domestic student population would decline over the next five years if the higher education entry rate instead remained constant. In such steady-state we would expect around 330,000 England-domiciled students to be starting full-time undergraduate courses in English institutions in 2020/21.¹⁴³ Recent student loan uptake rates of around 90 per cent would suggest that around 300,000 would be obtaining student finance.¹⁴⁴ Compared to this baseline, the predicted expansion in entry rates creates around 40,000 additional full time borrowers starting undergraduate courses in 2020/21, as compared to an alternative where entry *rates* do not change from 2015/16. Increases in uptake of postgraduate study will create further cost pressures not assessed here.

To illustrate the implications of further undergraduate expansion, over even this short period of time, the Education Policy Institute have modelled RAB charges for a single cohort of such full time students, assuming each borrows £16,000 per year in 2020/21 and similar amounts (in real terms) in subsequent years of three-year courses. £16,000 is roughly equivalent to the average annual tuition and maintenance loan that would be expected were current support levels (in terms of uptake and average awards) increased in line with inflation.¹⁴⁵ This takes into account that from 2016/17 maintenance grants will be replaced, for all but the lowest income students, with loans of an equivalent amount. By assuming the same level of borrowing for each individual, some additional variation in costs is ignored, but the findings of this chapter on the sensitivity to varying individual factors still hold and are consistent with previous research.

Under this simplified scenario, the average RAB charge is £11,030, or 27 per cent of the loan outlay. The expansion increases the estimated long term cost to government, for this single cohort of

2020/21 entry students, by around £440m in 2016/17 prices and values, from £3.31bn in the counterfactual scenario to £3.75bn.

This will also increase the demands for recurrent teaching grants and other subsidies provided via the Higher Education Funding Council for England. Teaching grants averaged £2,100 per student in 2013/14, when the total budget was £2.88bn. That funding is forecast to fall to £1.46bn by 2017/18, with £120m of savings promised by 2019/20 in the 2015 Spending Review, suggesting that the resources available per student are set to fall.¹⁴⁶ Nevertheless, if we assumed an average cost of £1,000 per student per year, this increase in student numbers would be associated with over £130m of extra costs across three years of study. The following analysis focuses on student loan impacts only.

As cohort after cohort of students enter higher education under the current fee regime, the debt accumulated by the government in financing them will rise. At some point, when enough former students have started to make large enough repayments (later in their careers) to start whittling down this debt, the total stock of public debt associated with these loans will decline, and eventually reach a more stable level. However, a large majority will, on current assumptions, never repay in full. In this modelling scenario, 71 per cent fail to repay their loans in full – 81 per cent of the women and 57 per cent of the men. **Those with an outstanding balance face an added marginal tax rate of 9 per cent on income over £21,000. The potential implications of this for work incentives have not been well researched.**

The long term implications of this expansion have been detailed by the OBR, suggesting that the addition of student loans to net debt will rise from around 4 per cent of GDP today to over 11 per cent in 2040, before declining to a more stable level at just over 10 per cent of GDP by 2065-66.¹⁴⁷ That represents an enormously expensive investment.

This scenario, which uses governmental and OBR predictions of rising enrolments, is, as noted above, highly sensitive to underlying assumptions, notably about the economy. As discussed above, English higher education policy is based on an underlying optimism about the economic prospects and future earnings of graduates; but these depend on many factors other than possession of a degree certificate.

Our first scenario uses economic predictions developed pre-Brexit. To illustrate the scale of financial risk that university expansion represents, an alternative scenario has been generated based on HM Treasury's April 2016 analysis of the potential impacts on economic output of leaving the European Union. In the worst-case scenario, the UK trades under World Trade Organisation rules. That report suggested that "The impact of leaving the EU for the WTO alternative implies a loss ranging from 5.4% to 9.5% of GDP after 15 years".¹⁴⁸ A 9.5 per cent reduction in GDP by 15 years after an EU-exit date of 2019 is simulated in a simplistic way here by keeping price inflation rates fixed and adjusting the growth in earnings downwards by around 0.7 percentage points per year for this period. This delivers an equivalent reduction in real average earnings compared to the counterfactual by 2034. Earnings growth is assumed to revert to normal levels thereafter.

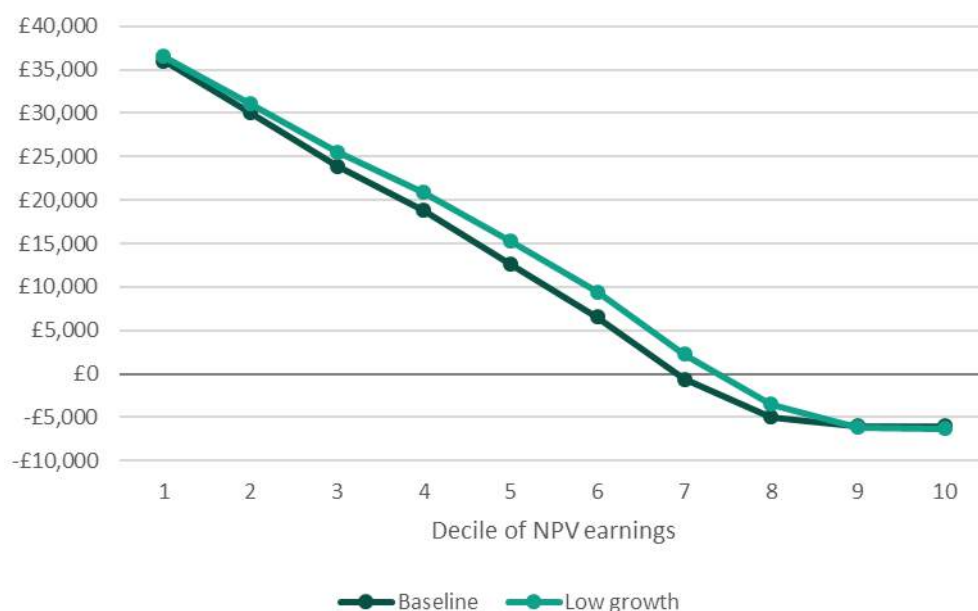
Figure 16 shows the average present value of RAB charges for these two scenarios. Costs are shown for people at different points in the income distribution of graduates, dividing them into deciles. This shows clearly the progressivity in the system: those in the lower earning deciles (shown on the

horizontal axis) receive a large positive amount; those at the top pay back more than they receive, shown as a negative amount on the vertical axis.

For the baseline scenario, those in the bottom decile of graduate real earnings over the 30-year repayment window are given a public subsidy via loans of £36,000 on average; those in the top decile are expected to generate a net return for government of £6,000 on average; and some are assumed to pay interest rates that exceed the Exchequer's cost of borrowing.

Under the lower growth scenario, the average NPV of long-run (over 35 years) earnings is reduced by 8.9 per cent. Accordingly, the RAB charge is increased across the distribution, focused on middle-earners, and on average from £11,030 (27 per cent) to £12,490 (30 per cent) – a 13.2 per cent increase. **For this cohort alone, who start their studies in 2020/21, that represents an additional long term cost of £490m to the exchequer. The proportion who do not finish repaying their loan increases from 71 to 76%.**

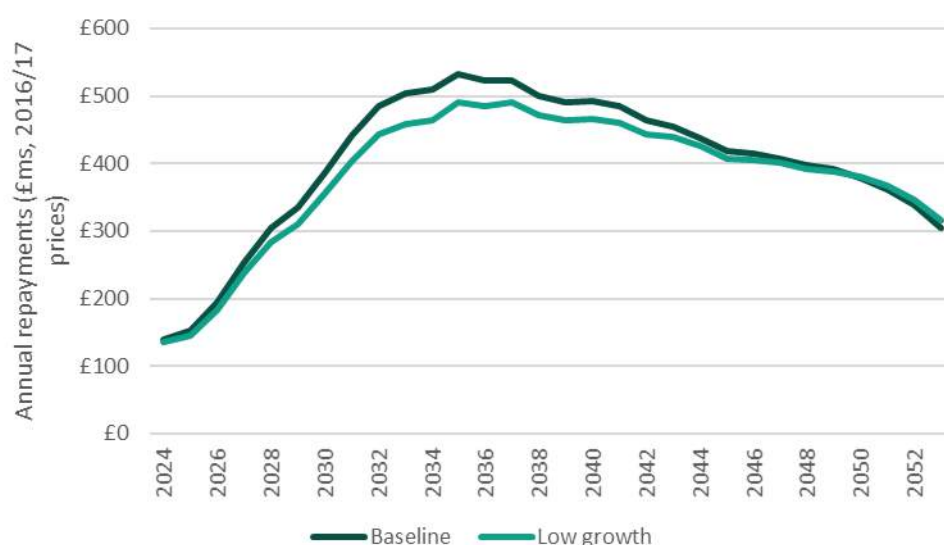
Figure 16: RAB charges by NPV earnings decile, comparing earnings growth scenarios (2016/17 prices)



Source: EPI version of BIS student loan repayments ready-reckoner

Figure 17 provides a different way of looking at our results, and shows the estimated difference in total repayments due for this cohort over their lifetime. The shortfall in repayments is reduced somewhat by the fact that repayments thresholds are planned to move in line with earnings – so if earnings grow more slowly the level at which students start to pay back their loans falls too. Government does have the ability to alter the terms of student loans as we saw with the previous Chancellor's announcement to freeze the thresholds until at least 2020/21. However, the capacity of the government to address rising costs by retrospectively altering the terms of a loan will be of little comfort to borrowers.¹⁴⁹ For this cohort, the greatest impacts are felt around a decade after graduation, but there is an impact on annual repayments up to 2050 despite our assumption that growth returns to normal levels after the 15-year period.

Figure 17: Annual repayments for 2020/21 entrants, comparing growth scenarios (2016/17 prices)



Source: EPI version of BIS student loan repayments ready-reckoner

Who goes to university, and their outcomes, matter greatly

The results above assume slower-than-expected earnings growth across the economy. The results differ markedly, however, if we change the assumed distribution of future earnings for graduates within the national earnings distribution. New information generated by the Government's Longitudinal Education Outcomes (LEO) dataset, which links education and tax data, suggests a wide range in long term graduate outcomes (as one might expect from the literature on wage returns reviewed in chapter 4). For the 2003/04 graduate cohort, lower quartile annualised earnings ten years after graduation were £20,000, whereas upper quartile earnings were £42,000.¹⁵⁰ Roughly speaking, that means that the middle half of the graduate earnings distribution completely spans the range from individuals repaying nothing in a given year to others incurring the maximum 3 per cent real interest rate on their loan.

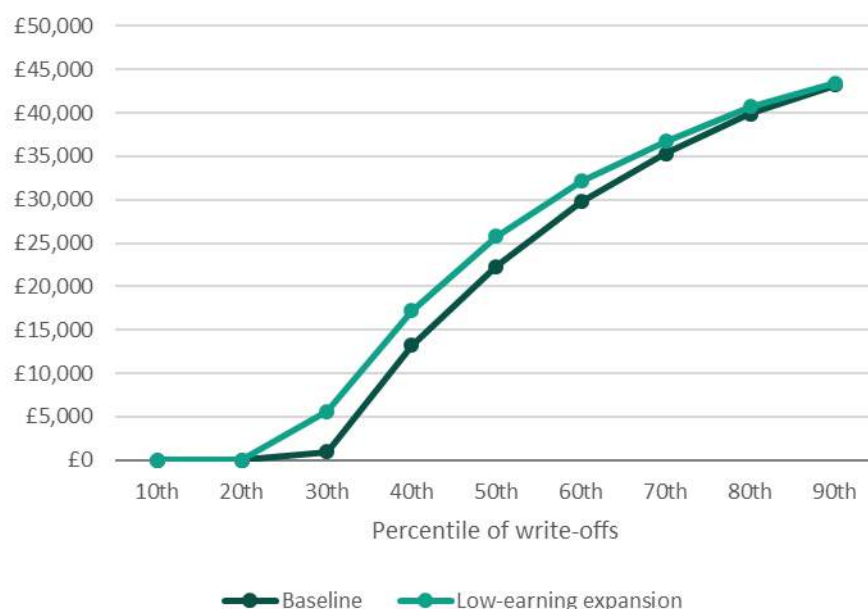
Here we illustrate how the total long term costs to the Exchequer would be affected if an expansion in participation came with a reduction in the average expected earnings.

Another alternative scenario is generated by assuming that the additional 40,000 students entering in 2020/21 due to rising entry rates (making up 340,000 overall) have earnings profiles drawn from the lowest 2 quintiles of graduates in terms of average earnings when in work, and from profiles with no more than 25 years of positive earnings.¹⁵¹ This represents 44 per cent of the profiles provided in the original model and they entail, on average, exactly half the earnings of the rest of the sample in NPV terms. In other words, we assume that the additional students have similar earnings profiles to the lower-earning graduates from the existing distribution, but maintain the macroeconomic growth assumptions of the baseline. This assumption is highly plausible, given what we know about the relationship between graduate earnings and other factors such as prior attainment and institution attended.

Compared to our baseline, where the 340,000 borrowers are taken to have the same future earnings as assumed by BIS for recent cohorts, a greater proportion of graduates in the new scenario fail to fully repay their student loans – 74 per cent instead of 71 per cent – and the levels of write-offs have

increased (as depicted in Figure 18). Combined with the expansion in numbers, the total RAB cost of the 2020/2021 entry cohort rises by £990m (a 30% increase on £3.31bn estimated before expanding student numbers). The average RAB cost has increased by £1,610 (or by 4 percentage points), so the total cost is £550m greater than that of an expansion in numbers that left the distribution of earnings unchanged.

Figure 18: Distribution and levels of debt write-offs, comparing scenarios for the future incomes of additional graduates (2016/17 prices)



Source: EPI version of BIS student loan repayments ready-reckoner

Vast differences across borrowers in levels of public subsidy, and the non-linear nature of the repayment system, mean that **quite modest changes in average income can translate into large changes in public cost if they are caused by additional graduates joining the bottom end of the income distribution, rather than a small decrease in earnings across the board.** In this example, a 4.3 per cent reduction in the average NPV earnings for graduates produces a 14.6 per cent increase in average RAB cost. In contrast, in our earlier low-growth scenario where every graduate's earnings are reduced (producing an 8.9 per cent average reduction in NPV earnings), the increase in average RAB cost was smaller relative to the change in average income: 13.2 per cent. The differences between scenarios are summarised in Table 8.

Table 8: Comparison of graduate earnings, debt write-offs and government costs under varying growth in numbers and earnings of graduates (2016/17 prices)

Scenario	No increase in entry rate (300,000 students)	Expansion to 340,000 students (no change in earnings)	Expansion with 9.5% reduction in GDP by 2034	Expansion biased towards low-earners
Average NPV earnings (30 yrs)	£1,110,000	£1,110,000	£1,010,000	£1,060,000
Average RAB %	27%	27%	30%	31%
Average RAB £	£11,030	£11,030	£12,490	£12,640
Total RAB £ms	£3,310	£3,750	£4,250	£4,300
Proportion not fully repaying	71%	71%	76%	74%

Source: EPI version of BIS student loan repayments ready-reckoner

These scenarios map out the financial implications for just one cohort, under a variety of plausible assumptions: and of course, in practice, more than one important parameter may change at once. Our current policies involve very high costs, and commit government funds to student support at the expense of other important candidates for funding, including other parts of the education system.

In this monograph we have argued that our neglect of sub-degree tertiary education makes no sense in labour market terms, and is highly regressive. It denies opportunities to large parts of our young population, and contributes to the progressive downgrading of further education budgets and facilities. Moving to more two-year qualifications and making far more use of (cheaper) colleges, would lead to major savings for individuals and for the Exchequer. It could also provide courses which are better fitted to the labour market than many current ‘low-yield’ degrees. In the next section, we therefore look at the potential savings from even a small shift in provision.

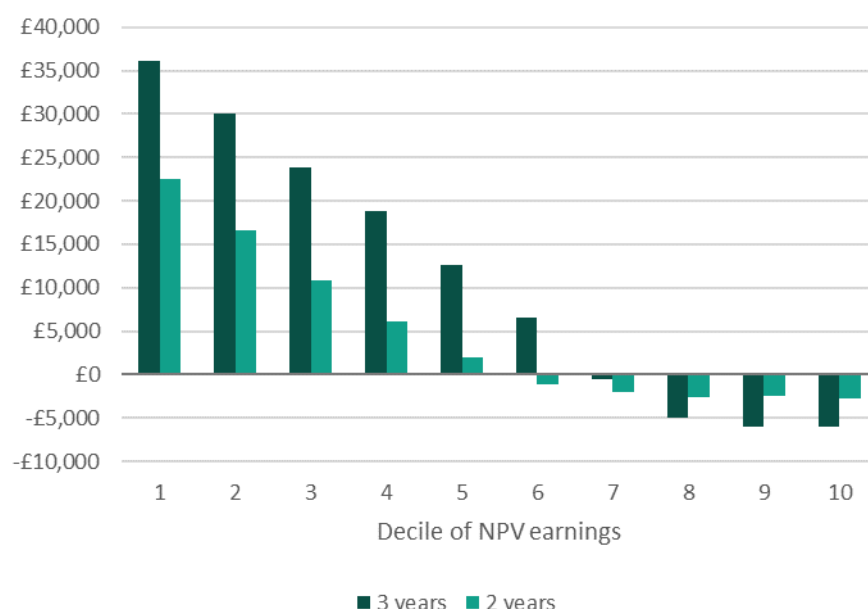
Public subsidies for higher education could be better targeted

In the simplest case, with annual study and maintenance costs similar to today’s, pursuing a two-year degree instead of a three year one might be expected to involve a reduction of roughly one third in the resource costs (both from the course and the opportunity cost of lost time that could have been spent in employment). However, due to the way the student finance system works, the Exchequer savings of shifts from three to two years of costs can be greater. Many students do not begin repaying the costs arising from their third year of study by the end of the 30-year repayment period, so the effective public subsidy for that year is 100 per cent of the initial loan outlay.

Compared to the same baseline expansion scenario as before, Figure 20 shows the difference in cost if borrowers take the same annual tuition and maintenance loans over two years compared to three years. On average, the saving in RAB cost is £6,310 per student, or a reduction from 27 per cent to 17 per cent. This is a 57 per cent Exchequer saving from a reduction in immediate loan outlay of a third. It is also clear that the savings are greater for students expecting to earn less over their

lifetime, ranging from £13,540 for the bottom decile of NPV graduate earnings to a cost of £3,330 for those in the top graduate decile (from whom government is extracting a profit via interest rates on their loans, and who are therefore shown as receiving a negative amount). A similar analysis would hold when considering alternatives including three year courses with lower fees.

Figure 20: RAB costs by lifetime NPV earnings decile, comparing 3 and 2 year courses



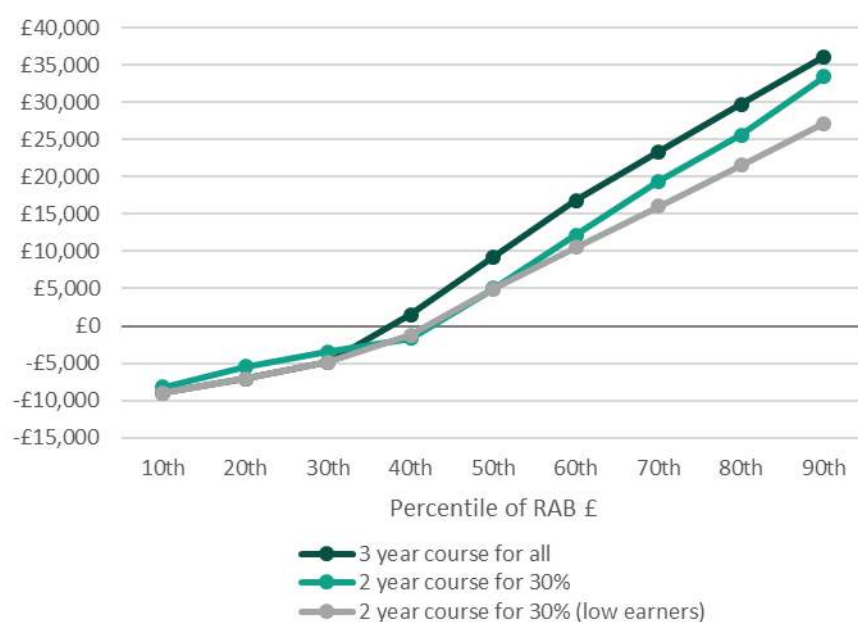
Source: EPI version of BIS student loan repayments ready-reckoner

It is clearly unlikely that the whole undergraduate population can or will move from three to two year degrees. But it is entirely feasible, under the reform proposals offered in chapter 6, that we could move (or move back) to a tertiary system more akin to that of Germany, Austria or the Netherlands, all of which have highly valued non-university tertiary options with shorter study periods than universities offer.

Two final scenarios have been modelled to illustrate the overall effects of switching a proportion of our cohort of 340,000 students into a two year course, though at the same yearly borrowing levels and with our baseline, pre-Brexit, growth forecast. Here, it is assumed that 30 per cent do so. In one version, this is comprised of students randomly selected from all groups of earnings and employment levels. In an alternative, the same overall movement is generated via 68 per cent of those in either the bottom 2 quintiles of average earnings or with only up to 25 years in employment out of 35 (44 per cent of the sample, as above) choosing a two year option.

As Figure 21 shows, the effect of these changes would be to reduce the instances of very high RAB costs, and compress the overall variation across borrowers. This is especially so where it is predominantly borrowers with low earnings prospects that make this switch. Reduced annual costs for some or all two-year courses are not modelled here.

Figure 21: Distribution of RAB costs, comparing scenarios for 2020/21 entry students choosing 2-year courses instead of 3-year courses (2016/17 prices)



Source: EPI version of BIS student loan repayments ready-reckoner

Table 9 displays the aggregate results. Spreading this 30 per cent of borrowers in proportion across the distribution reduces the total RAB costs by £650m (17 per cent) for this single cohort. However, if it is students more likely to go on to lower earnings that take this option, the savings are much greater: total costs fall by £1,290m (34 per cent). The impact on the numbers fully repaying their loans is smaller, because it is only those in the middle or upper end of the income distribution who tend to have any chance of fully repaying, even if the size of loans is reduced. Even with this large reduction in debt, low income graduates are still unlikely to fully repay.

Table 9: Distribution of RAB costs, comparing scenarios for students choosing 2-year instead of 3-year courses (2016/17 prices)

Scenario	Baseline (340,000 students)	30% switch to 2 year courses (all students)	30% switch to 2 year courses (low earners)
Average RAB %	27%	25%	20%
Average RAB £	£11,030	£9,120	£7,240
Total RAB £ms	£3,750	£3,100	£2,460
Proportion not fully repaying	71%	64%	67%

Source: EPI version of BIS student loan repayments ready-reckoner

Both scenarios represent a significant saving for the taxpayer, and an opportunity to redirect government expenditure and borrowing to other higher-return activities. Where such a scenario also

means that subsidies fall for courses with low economic benefits, this may contribute directly to an improvement in economic efficiency.

It is important to recognise that the modelling for the scenario with the greatest savings assumes that those who take smaller loans, and so receive less public subsidy, are also people who would end up in the lower quintiles for graduate earnings. This is not certain to be the case, but it seems plausible that, if credible two-year courses develop, many of the ‘switchers’ would otherwise have had relatively low-earning prospects. There will be many instances, for example, where a potential student is unsure of their longer term career plans and are more likely to choose a degree that is ultimately not useful for employment. In these cases, a shorter degree produces significant savings for the Exchequer. One possible use for such savings, discussed in greater detail in chapter 6, is to fund education and training later on which better supports a specified job role, or enables someone to change occupation.

Implications

Taken together, this analysis highlights three important facts about the student loan system:

- The public finance implications of issuing student loans are huge, long lasting and uncertain.
- An expansion in participation among students with similar earnings prospects to those at the lower end of the current distribution appears to represent at least as big a risk to these costs as do changes in economy-wide earnings.
- The relationship between loan outlays and net public cost is non-linear: reducing study lengths from three to two years could reduce costs by almost sixty percent, other things being equal.

These findings have an important bearing on the public costs of the current strategy of rapidly expanding Higher Education in a way that is pushing people with very different earnings prospects towards a single, highly expensive, route. Observing the scale of savings from altering the initial lengths of study highlights the potential benefits of, and sources of funding for, the reforms proposed in the final chapter.

Chapter 6. Where should we go from here?

As the previous chapters have argued, we now have a tertiary education system in which

- There is a disjunction between labour market demands and the qualifications offered to students
- Growing numbers of students will fail to earn at levels which allow them to repay their loans
- The burden on taxpayers is set to increase greatly
- There is no systemic incentive for HEIs to compete on price or to change their qualification mix
- There is little incentive for Further Education colleges to expand their shrinking tertiary provision, and in many cases, major barriers to their doing so
- New entrants ('Alternative Providers') concentrate on Business qualifications, and will tend to move to full 3-year degrees as often and as fast as they are allowed to do so
- Proposed changes for the sector will perpetuate and further embed these aspects of English tertiary provision.

This system is grossly unfair in its distribution of costs and benefits. 'Marginal' entrants to higher education will reap less and less benefit; worse, those who remain outside the higher education system will have access only to underfunded institutions which are constitutionally unable to offer them a high-quality alternative to university. Far from equalising opportunity, as the Prime Minister promised to do, our current tertiary arrangements work systematically against it.

So what can and should be done?

First, we need to change the funding system which underpins current arrangements. But second, we need to look back at the 1970s and recreate the old HNC/HND route. It is a duty of government to create and guarantee a national qualification system, especially in a world where life-chances are so closely tied to credentials: and the English government has, in key parts of our system, failed to do so.

The single most important policy change involves funding and would, in fact, be conceptually and practically quite straightforward. It puts more power and choice in the hand of individuals, and replaces our current, massively unequal system with equal treatment for all citizens.

We should create a single lifetime tertiary education entitlement, which can be drawn down as a loan in whatever instalments an individual pleases, whenever they wish, and used at any approved tertiary institution. An obvious maximum value would, in the immediate term, be the total amount which government currently sees as appropriate for a three-year full-time bachelor's degree.

As discussed further below, this is not a novel proposal: individual entitlements have been advocated on multiple occasions, although usually of a more general kind. Individual Learning Accounts were a manifesto commitment for Labour in 1997; and a "Lifetime Entitlement" has been canvassed most recently at the 2016 Liberal Democrat Conference, where it was announced as a policy in development. Australia already works with a lifetime loan entitlement, though only for university study. What has changed in England, and changed the arguments both for and against such a policy, is that, with the removal of any cap on university entrance numbers, **the government**

has, in effect, already made an equivalent financial commitment. If the whole of an 18-year-old cohort in the country applied to, and was admitted to a university, they would all be entitled to a full income-contingent loan for a three-year undergraduate degree, supported by the taxpayer.

Unfortunately, the form taken by this universal commitment currently restricts individuals' choice and control, and does nothing to encourage either innovation or efficiency. Instead it is creating an ever-widening divide between a growing HE sector where everyone offers the same at the same price, at a ballooning cost to the country, and a shrinking technical one which is massively underfunded.

Moving to an individual entitlement system has become, as a result, the sole policy option which offers both efficiency savings and the protection of quality. Otherwise, faced with rising liabilities, we are likely to find ourselves reverting to the 1990s, when governments responded to burgeoning higher education costs by simply cutting per-student spending. The modern equivalents would be an across-the-board reduction in the permitted fee level, with immediate effects on quality: or more changes (including retrospective ones) to loan conditions, hitting a generation many of whom are already earning at levels well below expectations.

Handing over more power to individuals in how they use their entitlements will, in itself, certainly change the dynamics of tertiary education. But in order to pull back effectively from the rush to undergraduate degrees, and to recreate higher technical qualifications which reflect labour market demand, government also needs to act positively. It must re-create clear tertiary technical pathways, including a proper framework and label for intermediate tertiary qualifications which have recognition, credibility, and can be offered by further education and well as by universities. Until it does so, learners will, quite rationally, opt for full degrees; and colleges will, quite rationally, continue to retreat from their technical heritage. And as a consequence, resource misallocation, student debt and taxpayer liabilities will continue to mount.

The government should update and redevelop the country's qualification framework so as to re-create a high-status public equivalent to the 'Higher National' qualifications created by its 1970s predecessors. These qualifications should provide a sub-degree tertiary route open to entrants from a wide variety of secondary programmes as well as adult entrants. They should be designed for flexible delivery through further education colleges, without direct university involvement, as well as by universities should they so wish.

Unlocking the system

Our current system is both highly expensive and highly rigid. At institutional level, tertiary education involves the transfer of block sums between one institution – increasingly the Student Loan Company, but also the Higher Education Funding Council and the Skills Funding Agency – and another, usually a university. It has resulted, predictably, in universities charging the maximum, and a uniform, price for almost every single one of their degrees. Shorter, and therefore cheaper, foundation degrees have gone into rapid decline since most institutions have no real incentive to offer them. Meanwhile alternative providers, overwhelmingly, set the fees for 'designated' awards at, or a little above, the level of the loan that their students currently can secure.

Students also face a rigid system. The incentives drive them to take the most expensive, highest level award they think they might achieve. This is because, although large loans are a serious undertaking, their income-contingent nature means that going for ‘the best’ is the rational choice.

Choices are further narrowed and distorted, both in universities and in further education, because entitlements are rigidly linked to certain types of course/award and are mutually exclusive. In the FE sector entitlements have for decades now been highly complex, constantly changing, and very constrained, especially at levels 3 and above. It has often been impossible to obtain support for a course at a given level if you have ever taken one before, no matter if was years ago and academic rather than vocational, or vice versa.

In higher education, meanwhile, the funding regime has been very simple to understand, but also restrictive. The state has been very willing to fund people for one degree, at the maximum level of fees allowed: but only one. So adults who want to return to education in order to retrain, or re-enter the labour market after an absence, have been unable to access any support. (This bar on funding for an ‘equivalent’ qualification is one major reason for the decline in part-time student numbers.¹⁵²)

To repeat: faced with this set of choices, most young adults will find that opting for a clearly delineated, prestigious and universally recognized qualification is the obvious choice. So they will take a full degree, even though it is very expensive, because it is clear what the loan entitlement will be; because the supposed returns to it are widely canvassed; and also because it is unclear if you will ever get a chance again if you opt for something else now. There is very little reason to shop around for a lower price than the norm, because the money saved is not something you can set aside for future use. Scouring the country for an FE college offering a level 4 qualification makes no sense at all. And there is no clarity on how taking a level 4 now might impact on your degree entitlement later.

But if we make this single major switch, to an *individual* entitlement, associated with a person not a course, which allows people to bank and spread a loan entitlement across their adult lives, the whole dynamic of the system changes. Table 10 below summarises how. It shows, in stylised form, how the ‘obvious’ choices and behaviour change for both individuals thinking about study, and for institutions offering tertiary courses.

Table 10: choices facing individuals and institutions under current funding rules, and under an individual tertiary entitlement system

	Government loans tied to specific courses: individuals entitled to one funded course per level. (The status quo)	Individual entitlement to an overall subsidy or loan amount which can be used at any time to cover all or part of any approved course with no limits on 'repeating' a level
Individual behaviour	Take the most expensive, highest level course that is feasible and which it is at all likely that you will pass	Shop around for good-value and shorter courses which will allow for further choices and progression at a later date, using unspent entitlement.
Institutional behaviour	Offer the longest courses at the highest fee level permitted, targeting full-time enrolments	Compete on price as well as reputation, offer more short, courses, part-time places, and 'lower tertiary' level courses which can be topped up later.

Flexible individual entitlements are well recognised as a way unlocking rigid systems, and generating innovation and competition, in a variety of fields.¹⁵³ Patient budgets in social care, for example, have been advocated and trialled for just this reason.¹⁵⁴

In education, there has been extensive discussion of the idea, especially as a way of improving quality and access for those not on a conventional academic track. The current author has argued for such a policy for some years.¹⁵⁵ The arrival of student loans for university has changed the financial dynamics of tertiary education, and made policy change even more desirable. In the first detailed discussion of entitlements since the arrival of £9,000 loans, Natasha Porter and Jonathan Simons argue that changing the student loan system to a

“draw down account where the balance can be accessed multiple times up to the loan limit....is an *essential* pre-condition to introducing some form of price competition and cost control into the loan system.”¹⁵⁶ (italics ours)

This is absolutely true. Making this shift will not, in itself, guarantee major moves towards a cheaper and more efficient system: but it is a precondition for any such development, and also a precondition for a fairer society. The move towards ever-greater tertiary participation leaves ever-larger numbers of young people with large debts, and society with huge obligations. But it also makes the labour market become ever more unfriendly to those without tertiary qualifications, who are overwhelmingly from lower-income backgrounds, and who have access only to our constrained and under-funded FE sector. **Our current grossly unequal allocation of funds is ever harder to justify.**

The government's move towards income-contingent loans for adults in further education in effect recognises that there is no good reason to divide the population into two groups, one deserving of enormous subsidies at age 19, and the other not. However, it does not take the logical further step of moving towards a unified tertiary funding system.

In their 2015 publication, Porter and Simons argue that “Government should commit to move towards one single student loan system that encompasses all post-19 training...whether undertaken in FE or HE”.¹⁵⁷ There is a clear logic to this: why not allow people to spend their entitlement at whatever level they like, with maximum flexibility? This was the logic of the original arguments advanced for Individual Learning Accounts, in the 1990s, and for the current Liberal Democrat initiative, as well as for the proposals made by academics and policy analysts.¹⁵⁸

However, this monograph argues that, at least in the short to medium term, it makes far more sense to offer an entitlement only for tertiary level qualifications (level 4 and above).

There are three major reasons for this. All of them are ‘practical’ rather than theoretical; but as such they also map out the difference between a policy which it is perfectly possible to achieve, and one which will be much more challenging and more costly. The key points are:

- First we already have a mechanism which would make a tertiary entitlement easy to administer. It comes in the form of an established lender, the Student Loan Company.
- Second, we already have a universal offer from Government at this level. The Treasury dislikes open-ended offers, and this has always been a barrier to an entitlement. But as of 2014, it has made one and we have it.
- Third, an entitlement encompassing all and every form of post-19 training will be extremely difficult to administer and immediately generate a number of fundamental dilemmas which are difficult to resolve and probably enough to kill the policy (either immediately or through a growing tangle of rules and bureaucracy). For example, must eligible training all be for qualifications? Of a minimum length? ‘Work-related’? Do people who left school at 16 get larger entitlements than those who did not? And so on (and on).

In this context, it is worth recalling the Individual Learning Accounts debacle, which killed the ‘lifetime entitlement’ policy for a generation. As some readers will remember, ILAs were tried by the first Blair government, for use on a limited number of (non-tertiary) types of course. But the programme was ended, very soon after it began, because of fraud – money was being claimed for learners who were never actually taught anything or even knew they were registered.

As a parliamentary enquiry made clear, the fraud was actually quite small scale, involving a small number of private companies, and the failures were largely a result of poor design by officials and over-hasty implementation rather than fundamental to the concept.¹⁵⁹ But the ILA story underlines how difficult it is for a modern government to run a scheme which involves many thousands of small programmes and small ‘providers’, and with no prior infrastructure in place.

For all these reasons, it seems better by far to confine expenditures to sizeable, taught tertiary qualifications, which we know to be important to individuals and the country. If we confine the use of entitlements to tertiary provision in regulated, approved institutions, we can achieve a fairer and more effective system quite easily. This does not mean that participating institutions will be or remain uniform. In a unified funding system that enables citizens to use their entitlements more freely, one result is likely to be much greater institutional diversity, not less.

Because of the student loan system, we can simply adjust and build on an institution that already deals with over 3 million individual accounts: accounts which are in the name of, and responsibility of, the individual student, not of an enrolment-hungry ‘provider’. Moving to a lifetime entitlement in

this case is very much like adding an overdraft facility and limit to a bank account. **The infrastructure exists and functions, and we could implement such an entitlement tomorrow.**

Reaching older adults and part-timers

It is a blot on our education system that, at a time when higher education enrolls more people, at higher cost, than ever before, there is also a rapidly declining proportion of part-timers and older adults among the student body. Part-time study statistics serve as a useful proxy measure of our system's success not only in widening access but in creating opportunities for widespread upgrading and renewing of higher-level skills. And our system is increasingly populated by young full-timers.

One reason is that the sheer cost of our higher education system has led to governments blocking funding and assistance for students taking what are called 'Equivalent Level Qualifications'. This means that, with some specific exceptions, no would-be student who has ever studied for a degree or other tertiary level qualification can access any funding for another qualification at that level.

This is clearly effective in preventing people from accessing loans for two successive degrees in French literature or mediaeval history (the rhetorical target of a previous Secretary of State for Education).¹⁶⁰ It stops hypothetical 'permanent students' from moving seamlessly from one large income-contingent loan to another income-contingent loan, with no employment in between. But the number of such people is likely to be tiny: and the costs they impose far smaller than the costs to the economy of erecting major barriers to retraining, and to moving careers effectively as technological progress redefines the job market.

As a recent report makes clear, the introduction of stringent 'ELQ' regulations is the single most important reason for the rapid declines in part-time study.¹⁶¹ A tertiary entitlement which individuals controlled would improve the situation immediately. Individuals who had only used up part of their entitlement on a first tertiary qualification would be able to tap it in order to cover some or all of the costs of additional education and retraining, at whatever tertiary level they wanted. Many might well take a lower level diploma, in a highly applied or technical field, years after completing a general bachelor's degree.

Overall, we can predict with confidence that this shift would reverse the downward trend in older, part-time students. And in the short term, just as the reform would create an incentive for price competition, so it would create a strong incentive to take out loans for part rather than the entire cost of a first degree, this spreading and possibly reducing in total the size of the government's loan book.

Why qualifications matter

Recreating the old 'Higher National' framework is a task which can only be undertaken by central government and cannot be outsourced to employer or industrial groups, or to NGOs and private companies. The disintegration of level 4 and 5 provision, which we have described above, shows how urgent action has become.

The importance of re-creating a technical route through upper secondary, and into tertiary education, was recognised by the recent (2016) Sainsbury Review of Technical Education, of which the main author was a panel member. That panel concluded that the current system of qualifications, which is highly 'permissive' and encourages lots of individual bodies to develop and

sell awards, is failing and that the English government must take a much more active role in structuring and assuring qualifications - as other countries do, and as it does itself with GCSEs and A levels.

The same is clearly true at the tertiary level. An organic system in which qualifications developed and gained repute over decades worked well in the 19th century, but it did so in the context of strong involvement by craft guilds, part-time study by employees on 'work-release', and a very small tertiary sector. This world has gone.

For decades now, the policy consensus within government has supported the idea of a 'market' in qualifications for adult skills and secondary vocational and technical awards. Porter and Simons (2015) who most recently addressed 'sub-degree' tertiary policy in depth, argue for a more rather than a less decentralised system for qualifications at this level, so that good quality offers can emerge and establish themselves. Given governments' record in vocational education over the last few decades, it is tempting to feel that they are the last people to entrust with qualification reform. However, in our opinion, a 'qualifications market' does not work and will not work at sub-degree level, for much the same reasons as the Sainsbury Review advanced in arguing for upper secondary reforms. The low uptake of Advanced Learning Loans, described above, demonstrates and explains why this is the case.

Adults today operate in a rapidly changing labour-market, where formal qualifications matter as never before, and where recognition of these is central to their value. Moreover, they are overwhelmingly studying on their own behalf, not sponsored by their employers. They will not and indeed should not commit their limited entitlements to something unless they know it will be widely recognised.

In this monograph, we have argued tertiary entitlements have the potential to stimulate price competition and the development of shorter, more innovative courses – thereby reducing student debts and future charges on the taxpayer. But this will only happen if individuals feel that it is sensible and safe to take shorter programmes, with their accompanying loans and costs, rather than stay with a full degree or avoid debt altogether. Only the state can provide the underlying guarantees that make this credible. Other countries run systems in which, as we have seen, sub-degree awards have respect, quality and high wage returns: England also did, not so long ago. We therefore believe that the state must intervene directly, and provide a renewed national framework at this level, using as its model the flexible, institutionally-rooted, and nationally validated HNCs and HNDs of just a few decades ago.

Equal or unequal benefits?

How might this policy change impact on different groups? More specifically, is it likely to improve the equality of life-chances, or further widen the gap between those who come from more and less advantaged backgrounds?

The comparison point of relevance is not some hypothetical and desired state of affairs, but where we are now. Today, the number and proportion of young people from low-income backgrounds attending university is higher than it was a decade ago, but still far lower than for middle and upper income groups. And lower-income students are more likely to attend local, and less selective, institutions. Meanwhile further education students come from overwhelmingly lower and lower-

middle income families. Further education has also, as we have seen, been starved of funds in comparison with higher education.¹⁶²

Current trends will result in more students with lower family incomes, and more students with lower academic attainment, taking out large loans and entering university, because they believe it to be the best alternative on offer. As we and others have argued, 'marginal' additional students are likely to find themselves at the lower end of the distribution in terms of 'returns' to a degree: returns which are increasingly variable, and sometimes small to non-existent.

The US offers cautionary evidence here. Student debt is now enormous, and a major political issue. Less well known is the fact that high debts are closely associated with family background.¹⁶³ An extremely high proportion of the students with mounting debts, both those facing default and those with the ability only to service the interest, come from lower-income backgrounds.

It is too soon for us to know whether this will also be the case in England, but it seems very likely. As the Warwick Institute for Employment Research has recently reported to HEFCE:

"While non-graduate positions may function as stepping stones into graduate jobs this research observes that many graduates who were first employed in non-graduate jobs remain in those jobs and lose contact with potential graduate employers and, therefore, the potential for graduate employment. This effect is compounded for certain groups such as those from lower socio-economic groups and those who graduated from lower tariff higher education institutions (HEIs), where employment in non-graduate jobs is usually more concentrated."¹⁶⁴

Under the reforms proposed here, there would, *for the first time*, be a strong incentive for FE colleges, and for universities which are not hugely over-subscribed, to start offering a variety of two-year and, hopefully, other more innovative courses. These are likely to be more closely geared to local labour markets; and be offered by institutions which are more or indeed entirely oriented towards teaching. While there are exceptions, colleges and small locally recruiting universities can be expected, finally, to engage in some price competition.

It is perfectly likely that these courses will appeal more to students from middle and lower-income families, for whom debt, even of an income-contingent kind, is of greater concern. But it is also, as we have just seen, extremely rational for such students to consider 'banking' some of their entitlement, given that many of them, under current circumstances, are ending up in non-graduate jobs with relatively low earnings and large loans. On balance, we would argue, this change is likely to be substantially progressive, both because the same entitlement will be available to everyone, and because it is likely to reduce the number of students from less advantaged backgrounds who end up with very high and growing debts.

However, this will only happen if we also recreate the institutional and qualification structure for sub-degree tertiary awards. As we have seen, the old and still well-respected HNC/HND pathway has been whittled down over the years until it largely consists of Business awards, offered largely by alternative providers without degree-awarding powers. Level 4 and 5 awards are in free-fall here, even as they maintain a robust and important role in the economies of other developed nations, and even though our current system is manifestly mis-allocating resources and failing to deliver critical

skills. The poor uptake of advanced learner loans, in stark contrast to undergraduate growth, reflects the absence of a robust, national qualification structure at this level.

Leaving these awards to a 'market' of awarding bodies has underlined the need for the state to maintain and validate a qualifications system with national credibility and value. A tertiary entitlement will, even on its own, go some way to unlocking our rigid and increasingly wasteful system. But it will only achieve its potential if the government also recognises the importance of addressing, as a matter of urgency, the need to re-create the high-status awards which were developed and delivered by its predecessors through a national system of HNCs and HNDs; and to ensure that the institutions which it allows to offer them are reputable and of high quality. All of this is entirely achievable. But it requires political will.

Notes

¹ <https://www.gov.uk/government/speeches/statement-from-the-new-prime-minister-theresa-may>

² For example, in Scotland, university education (for which Scottish and non-UK EU students pay no tuition fees) has been funded at the direct expense of further education, and is highly regressive in its beneficiaries. Wales' current system is recognized as financially unsustainable; while in Northern Ireland, the quality of higher education is seriously threatened by budget cuts. See Lucy Hunter Blackburn, 2015; Diamond Review of Higher Education in Wales, 2016

³ Hupkau and Ventura, 2016

⁴ These were, and in many cases still are, assessed by City & Guilds, and by professional bodies such as the certified accountants.

⁵ Pearson, which acquired them when it took over the examinations and qualifications run by the Edexcel Foundation, itself a merger between the University of London's exam board and the Business and Technician Education Council. As a result, Pearson became the only commercial company to run a sizeable portion of the UK's national examination system.

⁶ See Aldrich (ed), 2001; Wolf, 2009; Keep, 1999; for histories of these changes

⁷ Jessup, 1991

⁸ See Wolf (2015) for the allocation of adult 'skills' funding between workplace and other programmes over the period 2000-2015

⁹ Sixth form colleges are distinct from FE colleges. They typically offer a wide range of courses, and in some areas take all or most students in years 12 and 13 – although more and more schools are now opening sixth forms. However, sixth form colleges do not offer adult courses of any sort

¹⁰ Green, Felstead, Gallie, Inanc and Jewson, 2013

(<https://www.gov.uk/government/publications/training-away-from-the-workplace-and-reduced-hours-january-1995-to-december-2014>); Wolf, 2015

¹¹ Government policy under the 'Manpower Services Commission' and then the 'Training Agency' was hostile to traditional apprenticeships, and set out to create new programmes, notably the 'Youth Training Scheme', to combat youth unemployment. The creation of National Vocational Qualifications came a little later but was driven by the same agencies.

¹² Aldrich (ed), 2001; Jenkins et al, 2006; Wolf 2009; Fuller et al, 2015

¹³ Until 2014 there was no single register of Skills Funding Agency Training Providers. Tracking funding allocations has been further complicated by the decision to make all direct government contracts of a minimum size. This has spawned a complex web of sub-contracting which is virtually impossible to untangle for any outside observer.

¹⁴ Payments for adults (19+) continue to be made on a per-qualification basis. However, since 2012, payments for 16-18 year olds have reverted to a block per-pupil payment, to cover the pupil's entire programme.

¹⁵ Hupkau and Ventura, 2016

¹⁶ At present, the government is carrying out 'area reviews' designed to reduce the number of colleges. However, these reviews are not concerning themselves in any way with non-college providers.

¹⁷ Sixth form college learners are 90% full-time and very few are apprentices. The other three groups all recruit large numbers of part-timers and apprentices, and large numbers in each age category (16-18, 19-24, 25+)

¹⁸ For example, an adult who is enrolled in courses as a condition of receiving unemployment benefits will almost invariably be enrolled on a short course, which may or may not have a formal 'level'. This is because they may and hopefully will terminate their enrolment because they have got a job. Moreover, payment to the provider is partly dependent on successful completion of the

course/attainment of a qualification, so providers have a very strong incentive to deliver short, easy courses and qualifications.

¹⁹ This does not mean that colleges have no involvement with apprenticeship: on the contrary, a significant number of apprentices - around 20% - are trained in and through colleges. (Estimated by CVER: draft report from project 0.1, June 2016)

²⁰ This sub-set of level 4+ awards, awarded for successful completion of a 'higher' apprenticeship, showed a modest increase, from 5300 in 2013/14 to 6500 in 2014/15. In 2013/14 17,100 higher apprenticeships were being funded at 19+, less than 3% of the total of 665,700. All figures from SFA/BIS Statistical First Release SFA/SFR34, 7th July 2016

²¹ 5,473,000 were 'Qualification and Credit Framework' awards, many of which will have been tiny modular awards. The QCF has now been abolished.

²² Although there were a number of level 6 awards in 2012 and 2013 there have been none since 2013 which were funded through the adult skills budget.

²³ Response to written questions HL Deb 19 September 2016, WA1535, WA1599 and W1600

²⁴ Data provided by the AAT, who also report that they are receiving reports from providers that there is excess demand at this level, but that it is impossible to get good accountancy teaching staff at the salaries that the system allows. (Personal communication)

²⁵ This budget itself involves a combination of direct payments and payments from the government-funded Student Loan Company. The latter makes payments to institutions for students taking courses which are approved for SLC income-contingent loans.

²⁶ Some are delivered entirely within a university. Some are delivered in FE colleges, but 'validated' (and the degree awarded) by a university. Some are delivered and awarded by an FE college: - a limited number have been given foundation degree awarding powers.

²⁷ Department for Education and Employment 2000: Foundation Degrees Q & A Briefing

²⁸ National Audit Office, 2014

²⁹ Shury et al, 2016

³⁰ Shury et al, 2016.

³¹ HESA, 2016.

³² Answer to written question HL Deb 28 September 2016 WA1971. These numbers include all students in such institutions regardless of their source of funding. 74% are in FE Colleges, and some of the others may also be taught there, since students taught at an FE College under a sub-contract with a university are listed as HE-based. Equally, AP-based students may be registered with a college or HEI and will then be counted under that category.

³³ HESA statistics (HESA, 2016: Higher education student enrolments and qualifications obtained on undergraduate designated courses at alternative providers in England 2014-15) suggest lower numbers. For 2014/15 they list 5,080 full-time students studying for HNDs and 3,270 studying for HNCs, and 1,660 and 5,830 part-timers (for a total of 6,740 HND students and 9,100 HNC students, out of a total undergraduate population in English HEIs of 1,402,000. These data cover public universities and colleges. However, a sizeable number of HNC and HND students study with alternative providers; and many of the latter – though not all - will have validation and sub-contractual relationships with universities or FE Colleges. HESA reports that there were 22,605 students studying for HNDs and HNCs with Alternative Providers: this is almost three-quarters as many again in absolute terms as in the HEFCE statistics, although it seems likely that there is a considerable amount of double-counting occurring.

³⁴ HESA, 2016: Higher education student enrolments and qualifications obtained on undergraduate designated courses at alternative providers in England 2014-15

³⁵ The United States was the first country to move to a mass higher education system: there, a little over 30% of the adult population currently holds a full 4 year bachelor's degree, but another 10% hold a two year associate degree, which is a very close equivalent to an HNC/HND or vocationally oriented foundation degree. Many licensed occupations require a two year rather than a full bachelor's degree, including many intermediate health occupations. (Many people who attend a

community college to obtain an associate degree hope to progress to a full degree later: but foundation degrees, HNDs and HNCs were also always designed with this possibility in mind.)

³⁶ Reply to written question HL Debate 19 September 2016, WA1538. Precise numbers are as follows: 2013/14: 21,170 FTE starts in HEIs and 14,925 in FECs. 2014/15: 19,065 starts in HEIs and 14,510 in FECs. Note that HEI registered students may be taught with FE colleges or Alternative Providers. Only 130 entrants were registered directly with an AP (which would need to be one of the few that currently hold degree-awarding powers)

³⁷ OECD Education at a Glance Table A1a (Annual)

³⁸ Personal communications, International Evidence & Statistics Team, Department for Education

³⁹ HEFCE, 2015; and UCAS statistics: <https://www.ucas.com/corporate/data-and-analysis/ucas-undergraduate-releases/ucas-undergraduate-analysis-reports>. The number of 18 year olds in England will continue to fall until 2020 and then start to rise, although on ONS estimates it will only reach 2009 levels again in 2030. In the wider EU, which has been a source of steadily increasing numbers of students in UK universities, numbers will not even reach current levels again until 2026. Universities are therefore likely to recruit aggressively, and encourage further increases in the overall participation rate.

⁴⁰ This figure shows recent applications and acceptances to undergraduate degrees by English-domiciled students. (These all go through the same clearing house, UCAS – Universities and Colleges Admissions Service.) The numbers shown are for first-time applicants: total applications include those who did not make their grades, or get an offer from a preferred university in the first round of applications, and therefore reapply at a later date.

⁴¹ See e.g. The Times (<http://www.thetimes.co.uk/article/young-turn-their-noses-up-at-university-places-6gt7gjjr2>)

⁴² OECD *Education at a Glance* show that the fastest growth rates in the EU were, as one might expect, concentrated among countries with a low base, such as Poland, the Slovak Republic, Portugal and Turkey. Globally, among large developed countries, Korea stands out as having the highest participation and graduation rates. (Taiwan, with 23 million people, also has extremely high rates.) However, both these countries are now facing high levels of graduate unemployment and falling returns to degrees: see chapter 4 below.

⁴³ Most of the teacher training colleges were folded into larger universities. Some became enlarged and became universities.

⁴⁴ Answer to written question HC Debate 25 April 2016, 21887W

⁴⁵ In Scotland a much larger proportion of undergraduate education takes place in FE colleges.

⁴⁶ This was certainly one of the arguments that was put to central government by advocates of the change. It would, they argued, enable the country greatly to increase its total recruitment of international students, and so increase the size of an important export industry

⁴⁷ The overwhelming majority of these students are taking degrees validated by a ‘full’ university, although a few colleges have awarding powers for foundation degrees, and this year (2016) full degree-awarding powers at undergraduate and masters level (‘taught degree’) were granted to one FE institution., Newcastle-based NCG

⁴⁸ De Burgh et al, 2007; Wolf, 2002; Hutchins, 1953; Newman, 1852

⁴⁹ A small amount of lip service is paid to broader objectives in White Papers of the 1980s and 1990s but even that has been abandoned in more recent policy documents. Policy for research funding is less focused on immediate economic outcomes although here too there has been a growing tendency for governments to look for short-term impact (eg through the ‘impact’ component in the Research Excellence Framework which allocates large amounts of broad-based research funding to universities.)

⁵⁰ The adult skills budget is also shaped almost entirely on ‘economic’ grounds, quite narrowly conceived: hence there has been a steady move since the 1980s away from funding general education towards policies intended to promote productivity and growth directly by funding training

in very specific vocational skills. See e.g. Wolf, 2002; Brown and Hesketh, 2004; Keep et al, 2016; Keep and Mayhew, 2014

⁵¹ Leadbeater, 1999

⁵² See e.g. Universities UK, 2015 (2015)

⁵³ Department of Business, Innovation and Skills, 2016; Universities UK, 2015. See also Purcell and Elias, 2015

⁵⁴ See Susskind and Susskind (2015) for an analysis which predicts that as artificial intelligence progresses, many forms of professional knowledge and skill will be automated and taken over by machines

⁵⁵ See e.g. Wolf, 2013

⁵⁶ Some studies also collect information on the level of qualification that current job holders think is needed to carry out the job

⁵⁷ Dolton and Vignoles, 2000; Chevalier, 2003; Behle, 2016

⁵⁸ For discussions of this 'signalling' phenomenon see Wolf, 2002; Spence, 1973

⁵⁹ Purcell, Elias, Atfield, Behle, Ellison and Luchinskaya, 2012

The stage 1 survey went to over 120,000 students: the highly detailed final stage follow-up involved around 13,000 respondents.

⁶⁰ Someone is defined as 'mis-matched' if their education level is more than one standard deviation above or below the mean for that occupation. The ONS analysis shows a steady decline since 2002 in the percentage who are 'under-educated'. For over-education, there is a fall from 2002 to 2007, and a steady increase since then.

(<https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/articles/analysisoftheuklabourmarketestimatesofskillsmismatchusingmeasuresofoverandundereducation/2015>)

Note that this approach is inherently 'relative': it looks at whether people have more or less education than the norm, not whether they have more or less than the job in some sense really 'needs'. The more educated the population, the more mean education levels will tend to rise irrespective of changes in actual job demands.

⁶¹ UK Commission for Employment and Skills, 2014 and 2016.

⁶² See e.g. Dustmann, Fitzenberger, Schönberg, and Spitz-Oener (2014) for a clear analysis of diverging wage gains in Germany, where manufacturing has also shrunk as a share of GDP, although remaining high by developed country standards. Workers in manufacturing (much of it for export) have registered consistent high wage gains. By contrast, most of the jobs created in the German economy since the 1990s have been low-wage service jobs.

⁶³ McIntosh, 2013

⁶⁴ The UK system has been doing a very poor job of developing construction apprenticeships in recent years, in part because of the ready availability of skilled EU craftspeople: see especially the 2014 cross-party parliamentary enquiry report 'No More Lost Generations: Creating construction jobs for young people'." by Chartered Institute of Building and CITB

⁶⁵ Farmer, 2016

⁶⁶ In the 1990s, the government launched a 'National Vocational Qualifications' initiative which was intended to make all vocational education 'competence-based', delivered and assessed in the workplace. The initiative is now generally believed to have been misconceived, and there is no longer any obligation for vocational qualifications to take this form. A related ambitious project which required all vocational qualifications also to fit into a modular 'Qualifications & Credit Framework' was formally ended by Ofqual, the examinations regulator, in 2015.

⁶⁷ Answer to written question HL Deb 19 September 2016, WA1599

⁶⁸ There is also a sizeable literature on returns to low-level vocational qualifications and apprenticeships. See e.g. Jenkins et al, 2007; McIntosh, 2004; Dearden et al, 2002. In general, the results indicate that long-duration apprenticeships at levels 2 and 3 provide significant wage returns.

Labour Force Survey data for the period 1990-2010 consistently indicated very low returns for level 2 vocational qualifications.

⁶⁹ Dearden, 1999. We also have very detailed information for the year 2000, when the NCDS cohort were in their early 40s, showing the impact on earnings of qualifications undertaken in adulthood. Here, it is very clear that higher-level vocational qualifications (which would now be classified as 4 and above) have a significant positive impact on earnings for women. For men, however, only the highest levels (6+ in current usage) have any substantial and significant impact. Jenkins et al, 2003

⁷⁰ Education at A Glance (OECD, annual)

⁷¹ As discussed above, British government analyses show proportions with type B qualifications declining among younger age groups, and are also complicated by changes in provision that are not yet recognised in the coding, notably for nursing.

⁷² In all the countries shown, the gap between tertiary B and Tertiary A is significantly larger for the 55-64 age group. However, it is impossible to know whether this is because 'Tertiary A' holders increase their incomes more over a lifetime, or whether it reflects the fact that, in every case, a much smaller proportion of the older age group are university graduates.

⁷³ (The largest gap for the countries shown is in France, but this probably reflects the fact that a very high proportion of intermediate qualification holders from the IUTs continue on to collect a full 'Tertiary A' award. The average amount of time spent in formal education by French young people is the highest in Europe.)

⁷⁴ Recent data from Germany (Rehn, 2011) show the average starting salaries of university graduates to be lower than for graduates of the Fachhochschulen.

⁷⁵ See especially the work of John Goldthorpe for a discussion of the differences between the post-war decades and the present in terms of job changes and social mobility.

⁷⁶ See Reeves, 2015; and also Milanovic, 2016; Wolf, 2013.

⁷⁷ See e.g. Sloane and O'Leary, 2005; Smith and Naylor, 2001; Walker and Zhu, 2011,

⁷⁸ This is not the same as a finding that 'vocational' degrees are always a good bet in labour market terms. In the FutureTrack data, the two groups of graduates who were most likely to report that they were in jobs which were very inappropriate for their skills and qualifications were Law graduates, followed by those in History and in Creative Arts/Design. See Purcell et al, 2013

⁷⁹ In Taiwan, for example, where around 70% of the age cohort now enters higher education, increasing numbers of students have difficulties in finding a job in their university discipline. A survey indicated that only a quarter of university graduates in the last five years have found a job related to their field of study. The unemployment rate of university graduates increased from 2.7 percent in 1993 to 5.84 percent in 2012. "The university graduate unemployment rate has been higher than the unemployment rates for all other levels of education, including those without college degrees, since 2011." Brookings Institution (2014)

The Brookings analysis also notes that there has been a big increase in the stratification of higher education, both in prestige and resources, and argues that this has reinforced social stratification in Taiwan.

⁸⁰ Britton, Dearden, Shephard, and Vignoles, 2016

How English domiciled graduate earnings vary with gender, institution attended, subject and socio-economic background (IFS)

⁸¹ For example, comparisons with the median and 90th percentile of non-graduate earnings show that, for 1999 cohort men graduate earnings at the median point are, overall, much higher than for non-graduates. Broken down by subject they range from a median very close to the 2013 non-graduate median of £14400 to one that is more than twice as high. Graduate earnings at the 90th percentile of earnings also vary dramatically by subject (and are not closely correlated with median levels). For about a third of subject areas, the figure is very similar to or only slightly above the 90th percentile for non-graduates (£42,500). For some – and most noticeably economics – it is more than twice as high. Subject disciplines vary markedly not only in their average/median earnings, but also in the level of internal variability. Because graduates are much more likely to be employed, the

overall figures for the 20th percentile of earnings show them much higher than for non-graduates. Even so, in some disciplines, the 20th percentile for graduates is at or about the non-graduate level. Male and female earning patterns, overall and by discipline, vary markedly: a pattern also found in every other study.

⁸² The researchers were not able to control for individual academic attainment pre-entry, but made some adjustments on the basis of academic selectivity at individual course level, using information on average 'tariff scores' for a particular course at a particular institution.

⁸³ Brittan et al op cit: 26. The analysis also controlled for age, region and whether or not individuals came from high-income families.

⁸⁴ See Jenkins and Wolf (2016) for a discussion of how institutional prestige affects the fees charged by UK universities

⁸⁵ These include Oxford, Cambridge and the big research London institutions, but other Midland and Northern universities with strong research reputations also have very high-earning graduates.

⁸⁶ LSE male graduates: some universities, all pre-92, agreed that they could be identified in the analysis.

⁸⁷ The authors stress that this was not necessarily the case for non-graduates in the same region as the institution concerned.

⁸⁸ Of course the very highest earners tend to be drawn heavily from high-skill elite institutions and courses, in Germany as in France as in England: but they are a small group. Add refs

⁸⁹ *Success as a Knowledge Economy*, para.s 6-9 passim

⁹⁰ Basically, they are just coefficients extracted from a particular econometric model in which a number of supposedly independent factors (variables) are related to an outcome measure: typically GDP or productivity growth. Different specifications will produce different values: and whether or not the associations are actually causal, or run in the direction that the model assumes, is not something that can be established from the numbers. Sceptical statisticians can and do point to the basic problem of assuming that 'correlation implies causation'.

⁹¹ Keep op cit

⁹² Milanovic, 2016: chapter 2 passim

⁹³ Median wages for women have risen during this period, though inequality among women has risen even faster than among men. Wolf, 2013:141; Blau and Kahn, 2006; Weinberger and Kuhn 2006

⁹⁴ <https://www.brookings.edu/opinions/the-typical-male-u-s-worker-earned-less-in-2014-than-in-1973/>

⁹⁵ Abel and Deitz, 2014

⁹⁶ Germany, for example, is currently one of the most successful economies in the world, with substantially lower levels of inequality than the USA, or the UK. But if you look at market inequality before government action, Germany shows the same enormous growth in inequality as in the USA. Milanovic op cit: 106-109

⁹⁷ Source: Conference Board Productivity Brief, 2015

⁹⁸ Countries may also provide support for living costs, which are a major part of the degree cost from the student's perspective: support here is highly variable and not correlated with tuition subsidies in any simple way, but is not discussed here.

⁹⁹ See Wolf, 2015

¹⁰⁰ Universities also have to comply with a number of other measures, intended to ensure that a sizeable proportion of the tuition income is devoted to 'widening participation' among students from disadvantaged backgrounds.

¹⁰¹ <http://www.telegraph.co.uk/education/educationnews/8336685/9000-tuition-fees-will-be-the-exception-promises-Higher-Education-minister.html>

¹⁰² Chapman, 2006; Barr, 2004 and 2013

¹⁰³ Student Loans Company, 2015

¹⁰⁴ See e.g. the 2016 White Paper, *Success as a Knowledge Economy*, or Willetts 2015. (David Willetts was England's Minister for Higher Education 2010-15 and oversaw an enormous increase in the proportion of funding funneled through student loans.)

¹⁰⁵ See Student Loan Company, 2015

¹⁰⁶ Nursing and midwifery students were originally excluded from this system, but in 2015 the government announced that they too would be expected to pay fees.

¹⁰⁷ The very rapid shift from £3000 to £9000 a year student fees was less by arguments about private versus social costs, and more by the 2010-15 Coalition Government's austerity programme. Increasing fees and introducing the income-contingent loan system allowed for a large cut in direct teaching grants, and, therefore, large amounts of government expenditure could be taken 'off the books'.

¹⁰⁸ In most cases, average debt on graduation is also lower: the US is the main exception, according to a recent Sutton Trust report, but higher average salaries mean that that the debt/salary ratio is nonetheless lower there. Sutton Trust, 2016

¹⁰⁹ Stevens, 2004

¹¹⁰ See Wolf, 2002; Browne Review, 2010

¹¹¹ Wolf, 2015 op cit

¹¹² ibid

¹¹³ See Jenkins and Wolf, 2016

¹¹⁴ A number of institutions (notably George Washington University in the US) are well known in the sector for using price increases as a way of driving up their reputation successfully (see Calvert 2015).

¹¹⁵ Calvert op cit; Askin and Bothner, 2016

¹¹⁶ National Union of Students, 2015

¹¹⁷ Notably Regent's, Buckingham, BPP and Richmond. None of these universities offer HNDs, HNCs or other level 5 awards

¹¹⁸ Vince Cable has noted that, while SoS with responsibility for the remaining 'community learning' budget, he faced repeated attempts to have it abolished entirely.

¹¹⁹ Under current funding arrangements, with payment largely 'by results' – i.e. on successful completion of the award – there is a strong incentive to steer people towards easily-achieved awards: see chapter 4 below and also e.g. McLaughlin Review 2013; Sainsbury Review 2016: Porter and Simons, 2015

¹²⁰ Each qualification had its own price-tag, depending on how it was classified in terms of the 'guided learning hours' required to deliver it. See Wolf, 2009; and Fuller et al, 2015.

¹²¹ Jenkins, 2016. Because the classification system used by the NCDS coders was based on an earlier version of the qualifications framework, it is impossible to translate the numbers into current levels. Level 4 in the data includes both degrees as well as 'National Vocational Qualification level 4'.

¹²² The continuing provision of level 4 AAT awards for part-time employed accountancy technicians is the exception that proves the rule. These do form part of a clear long-established and recognized route to professional status, accountancy having been the one major profession not to move to graduate-only entry. New level 4 and 5 technical and vocational qualifications were developed in huge numbers by government as part of its NVQ initiative, but with very little take/up (Wolf, 2002 and 2009).

¹²³ Wolf, 2009

¹²⁴ From 13/14 Advanced Learner Loans have been available for Ls 3-4 for 24+ learners. First full L3s for 19-23 year olds are free, but subsequent L3s are not. The maximum loan amount an Access qualification may attract can be found in the Advanced Learner Loans Catalogue. The range for loans is between £3,022 and £5,197. Generally, advanced learner loan amounts vary according to the size of the qualification and what sector subject area it is in. From now on, loans will be available to anyone aged 19+ for awards at levels 3, 4, 5 and 6

¹²⁵ The Impact Assessment in advance of loans being introduced predicted a 45% fall in uptake of eligible courses: and the actual fall was 31%. Falls were highest for Level 4 (Certificate and Diplomas) and Level 3 Certificates and lowest for Level 3 Diplomas. Adams et al 2016: 20, 30-31

¹²⁶ Answer to WPQ from the author, answered by Baroness Neville-Rolfe, HL26 and Adams et al, 2016,

¹²⁷ It is noteworthy that the only university in the country which routinely offers full degrees in a compressed 2-year format as standard is the (private, not-for-profit) University of Buckingham. It is very small and its fees are considerably higher than those charged by mainstream universities, not lower. BPP University (private for-profit) also offers a 2-year accelerated option on some of its three-year programmes

¹²⁸ Noonan and Pilcher, 2015; Norton, 2012; Norton and Cherastidtham, 2014.

¹²⁹ Wolf, 2015

¹³⁰ Hillman, 2016

¹³¹ For a discussion on the relevant borrowing cost for financing student loans, see Shephard, 2013. The latest estimate of the RAB charge for full-time tuition fee and maintenance loans, and part time fee loans, was provided in answer to the written question HC Debate 25 April 2016, 24589W

¹³² Crawford, Crawford and Jin, 2014

¹³³ National Audit Office, 2013; House of Commons Business, Innovation and Skills Committee, 2014

¹³⁴ Shephard,

¹³⁵ Answer to written question: HC Debate 1 February 2016, 24589

¹³⁶ McGettigan, 2015

¹³⁷ The user can enter a scenario for the amounts borrowed in each year of a course and alter several policy variables, for instance the income thresholds for repayment or the discount rate. For an individual's profile of lifetime income (over 35 years – not capturing full careers for all but allowing for scenarios with longer repayment periods than 30 years), the model calculates the annual repayments due, the ultimate amount of debt written off and the net present value of the cost to government. An average RAB charge across borrowers is estimated by carrying this calculation out separately for 10,000 out of a set of 20,000 profiles of annual earnings, investment income and early repayments.

¹³⁸ Department for Business, Innovation and Skills, 2016. The proportion failing to make payments due can be significant, and this particularly affects those moving to work outside of the country following graduation.

¹³⁹ The modelling approach is as described in the documentation for the BIS model: Department for Business, Innovation & Skills, 2015. The main adaptation made for this report is to allow different groups from the sample of 20,000 earnings profiles to be disproportionately selected in iterations of the repayments estimation, and to assign different borrowing patterns to different students based on their future earnings. The repayment and interest thresholds are held constant in nominal terms from until 2020/21, in line with the policy change announced in 2015. Inflation rates (historic and forecast) are updated using the OBR's March 2016 economic forecasts (OBR, 2016). Important for results, the long term inflation rates are held constant at their 2020/21 end-points from those forecasts, but the difference between those and average earnings growth is taken to be 1.1%pts in the long run. This is consistent with the IFS (2014) and the OBR's 2013 Fiscal Outlook report (OBR, 2013) – the last long term projection for real earnings growth provided – but is slightly lower than the 1.4%pts assumed in the published BIS Ready Reckoner.

¹⁴⁰ Crawford, Crawford and Jin, 2014

¹⁴¹ Office for Budget Responsibility, 2016.

¹⁴² Office for Budget Responsibility, 2016.

¹⁴³ According to HESA (2016, Table 7a) there were 340,060 such students enrolled in 2014/15. 330,000 is calculated by first applying the increase in acceptances for this group between 2014/15 and 2015/16 reported by UCAS (2015), and then reducing the numbers to 2020/21 based on the OBR's (2016) projections of the reduction in the weighted 18-24 population.

¹⁴⁴ Student Loans Company (2015, Tables 4A(ii) and 4B(ii)) report tuition loan and maintenance loan take-up rates of 92% and 89% respectively in 2013/14.

¹⁴⁵ The following figures have been used to calculate an indicative 'average' borrowing level in 2015/16, to be uprated to 2020/21 using OBR (2016) inflation forecasts: the average post-2012-system annual tuition loan for England-domiciled, full time students in English institutions was £8,340, the average maintenance loan was £4,060; the average maintenance grant was £2,972; and the number of students given maintenance grants was 57% of the number receiving maintenance loans (Student Loans Company (2015), 'Student support for Higher Education in England 2015: 2014/15 payments, 2015/16 awards', Tables 6.1, 6.3, 6.4).

¹⁴⁶ Higher Education Funding Council for England, 2013. Department for Business, Innovation and Skills, 2014. HM Treasury, 2015.

¹⁴⁷ Office for Budget Responsibility (2016), 'Fiscal sustainability analytical paper: Student loans update' (Chart 3.1).

¹⁴⁸ HM Treasury, 2016

¹⁴⁹ HM Treasury, 2015

¹⁵⁰ Department for Education, 2016

¹⁵¹ The original BIS model's sample of hypothetical graduate earnings profiles has been partitioned into 25 groups. Within each gender, profiles are allocated to different groups based on which (1) quintile of average annual real earnings (only counting years of non-zero earnings) they are in; and (2) the number of years across the 35-year profiles provided in which they are earning anything at all with five groups separated at 20, 25, 30, 34, and 35 years. 10 per cent of males and 19 per cent of females earn in 25 or fewer of 35 years in BIS's estimate of the likely trajectory for graduate earnings.

¹⁵² Hillman (ed), 2015

¹⁵³ See e.g. Paxton and White 2006

¹⁵⁴ Le Grand, 2006

¹⁵⁵ Wolf 2009, 2010

¹⁵⁶ Porter and Simons, 2015

¹⁵⁷ *ibid*: 12

¹⁵⁸ Wolf 2010, 2011; Porter and Simons 2015. See also Barr 2001, Cedefop 2009.

¹⁵⁹ The ILA programme was not, as the Commons Select Committee later observed, in any real sense an ILA programme at all (House of Commons Education and Skills Committee, 2002). It was actually a rather complex and bureaucratic form of (low-value) voucher which could be cashed in by anyone teaching certain groups of adults.

¹⁶⁰ <https://www.theguardian.com/politics/2003/may/12/uk.artsandhumanities>

¹⁶¹ Hillman (ed), 2015

¹⁶² Wolf, 2015

¹⁶³ Brookings, 2016

¹⁶⁴ Behle, 2016

Bibliography

- Abel, J. R. and Deitz, R. (2014) 'Do the Benefits of College Still Outweigh the Costs?', *Current Issues in Economics and Finance* (Federal Reserve Bank of New York), 20.3.
- Adams, L. et al (2106) 'Evaluation of 24+ Advanced Learning Loans: an assessment of the first year', IFF Research Ltd for the Department of Business Innovation and Skills BIS Research Paper 263.
- Aldrich, R. (2001, 2002) 'A century of education', Routledge.
- Askin, N. and Bothner, M. (2016) 'Status-Aspirational Pricing: The "Chivas Regal" Strategy in U.S. Higher Education, 2006–2012', *Administrative Science Quarterly* 61(2), pp 217-253.
- Barr, N. (2001) 'The Welfare State as Piggy-Bank', Oxford University Press.
- Barr, N. (2004) 'Higher Education Funding', *Oxford Review of Economic Policy* 20.2 pp 264-283.
- Barr, N. and Johnston, A. (2013) 'Student loan reform, interest subsidies and costly technicalities: lessons from the UK experience', *Journal of Higher Education Policy and Management*, Vol. 35. No. 2, pp. 166-177.
- Bartik, T. J., Brad H. (2016) 'Degrees of Poverty: Family Income Background and the College Earnings Premium', *Employment Research* 23(3).
- Behle, H. (2016) 'Graduates in non-graduate occupations', Warwick Institute for Employment Research.
- Blackburn, L. H. (2015) 'Whose to Lose?: Citizens, Institutions and the Ownership of Higher Education Funding in a Devolved UK'.
- Blau, F.D and Kahn, L.M. (2006) 'The US gender gap in the 1990s', Working Paper 508, Princeton University: Industrial Relations Section.
- Britton, J., Dearden, L., Shephard, N., & Vignoles, A. (2016) 'How English domiciled graduate earnings vary with gender, institution attended, subject and socio-economic background' (No. W16/06), Institute for Fiscal Studies.
- Brookings Institution (2014) 'Education in Taiwan' <https://www.brookings.edu/opinions/education-in-taiwan-taiwans-colleges-and-universities/>.
- Brown, P., and Hesketh, A. (2004) 'The Mismanagement of Talent: Employability and Jobs in the Knowledge Economy', Oxford University Press.
- Browne, J. (chairman) (2010) 'Securing a sustainable future for higher education: the Browne review', Department of Business Innovation and Skills.
- Calvert, M. F. (2015, February 6) 'How to Raise a University's Profile: Pricing and Packaging', *New York Times*.
- Cedefop (2000) 'Demand-side financing - a focus on vouchers in post-compulsory education and training: discussion and case studies', Thessaloniki: Cedefop.
- Chapman, B. (2006) 'Income contingent loans for higher education: International reforms', *Handbook of the Economics of Education*, 2, pp 1435-1503.

- Chevalier, A. (2003) 'Measuring over-education', *Economica*, 70(279), pp 509-531.
- Chevin, D. (2014) 'No more lost generations creating construction jobs for young people', House of Commons, London, UK.
- Chou, P. C. (2014, November 12) 'Education in Taiwan: Taiwan's Colleges and Universities'. Retrieved from <https://www.brookings.edu/opinions/education-in-taiwan-taiwans-colleges-and-universities/>.
- Conference Board (2015) 'Productivity Brief 2015 Global'.
- Crawford, C., Crawford, R. and Jin, W. (2014) 'Estimating the Public Cost of Student Loans', Institute for Fiscal Studies.
- de Burgh, H., Fazackerley, A., & Black, J. (2007) 'Can the prizes still glitter? The future of British Universities in a changing world', University of Buckingham Press.
- Dearden, L. (1999) 'Qualifications and Earnings in Britain: How Reliable are Conventional OLS Estimates of the Returns to Education?', Institute for Fiscal Studies Working Paper W99/7.
- Dearden, L., McIntosh, S., Myck, M., Vignoles, A. (2002) 'The returns to academic and vocational qualifications in Britain', *Bulletin of economic research*, 54(3), pp 249-274.
- Department for Business, Innovation and Skills (2014) 'Funding per student in higher education'.
- Department for Business, Innovation & Skills (2015) 'Guide to the simplified student loan repayment model', https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/444413/BIS-15-411-guidance-to-the-student-loan-repayment-model.pdf.
- Department for Business Innovation and Skills (2016) 'Success as a Knowledge Economy: Teaching Excellence, Social Mobility and Student Choice', presented to Parliament by the Secretary of State for Business Innovation and Skills (Cm9258).
- Department for Business, Innovation and Skills, Department for Education (2016) 'Post-16 Skills Plan', presented to Parliament by the Minister of State for Skills: July 2016 (Cm 9280).
- Department for Education and Employment (2000) 'Foundation Degrees Q & A Briefing'.
- Department for Education (2016) 'Employment and Earnings Outcomes of Higher Education Graduates: Experimental data from the Longitudinal Education Outcomes (LEO) dataset'.
- Diamond, I. (chairman) (2016) 'The Review of Higher Education Funding and Student Finance Arrangements in Wales'.
- Dolton, P. and Vignoles, A (2000) 'The incidence and effects of overeducation in the U.K. graduate labour market', *Economics of Education Review Elsevier*, vol. 19(2), pp 179-198.
- Dustmann, C., Fitzenberger, B., Schönberg, U., Spitz-Oener, A. (2014) 'From sick man of Europe to economic superstar: Germany's resurgent economy', *The Journal of Economic Perspectives*, 28(1), pp 167-188.
- Farmer, M. (2016) 'The Farmer Review of the UK Construction Labour Model', Construction Leadership Council.
- Fuller, A., and Unwin, L. (2015) 'Does apprenticeship work for adults?', Nuffield Foundation.

Green, F., Felstead, A., Gallie, D., Inanc, H., Jewson, N. (2013) 'What has been happening to the training of workers in Britain?'. LLAKES research paper, 43.

Higher Education Funding Council for England (2013) 'Funding for higher education in England for 2013-14: HEFCE grant letter from BIS'.

Higher Education Funding Council for England (HEFCE) (2015) "Young participation in higher education: A levels and similar qualifications'.

Higher Education Funding Council for England (2016) 'Funding for higher education in England for 2016-17: HEFCE grant letter from BIS'.

Higher Education Statistics Agency (HESA) (2016) 'Higher education student enrolments and qualifications obtained on undergraduate designated courses at alternative providers in England 2014/15. Experimental First Statistical Release' <https://www.hesa.ac.uk/news/15-06-2016/sfr235-alternative-providers>.

Hillman, N. (ed) (2015) 'It's the finance, stupid! The decline of part-time higher education and what to do about it', Oxford: Higher Education Policy Institute.

Hillman, N. (2016) 'The Coalition's higher education reforms in England', Oxford Review of Education, 42, 3, pp. 330–345.

House of Commons Business, Innovation and Skills Committee (2014) 'Student Loans: Third Report of Session 2014-15', HC 558.

Hupkau, C. and Ventura G. (2016) 'Further Education Providers in England: an analysis of the evolution of providers, learners and funding'. Unpublished report to the June 2016 steering group, Centre for Vocational Education Research, LSE, London.

Hupkau, C., McNally, S., Ruiz-Valenzuela, J., Ventura, G. (2016) 'Post-Compulsory Education in England: Choices and Implications', Centre for Vocational Education Research, London.

Hutchins, R. M. (1953, 1964) The University of Utopia Chicago: University of Chicago Press.

HM Treasury (2015) 'Spending Review and Autumn Statement 2015'

HM Treasury (2016), 'HM Treasury analysis: the long-term economic impact of EU membership and the alternatives'.

Jenkins, A. (2016) 'Adult Learning and Qualifications in Britain. Journal of Education and Work' .doi:10.1080/13639080.2016.1196347.

Jenkins, A., & Wolf, A. (2016) 'What's in a Name? The Effect of Brand on the Level of English Universities' Fees '(WP 16-12), Department of Quantitative Social Science-UCL Institute of Education, University College London, London.

Jenkins, A., Greenwood, C., & Vignoles, A. (2007) 'The returns to qualifications in England: updating the evidence base on level 2 and level 3 vocational qualifications', Centre for the Economics of Education, London School of Economics and Political Science, London.

Jenkins, A., Vignoles A., and Wolf, A. (2006) 'Certifying the workforce: economic imperative or failed social policy?' Journal of Education Policy 21(5) pp 535-566.

- Jenkins, A., Vignoles, A., Wolf, A., & Galindo-Rueda, F. (2003) 'The determinants and labour market effects of lifelong learning'. *Applied economics*, 35(16), pp 1711-1721.
- Jessup, G. (1991) 'Outcomes. NVQs and the Emerging Model of Education and Training', London: Faber.
- Keep, E. (1999) 'UK's VET Policy and the 'Third Way': following a high skills trajectory or running up a dead end street?', *Journal of Education and Work*. 12(3) pp 323-346.
- Keep, E., Mayhew, K., Payne, J. (2006) 'From skills revolution to productivity miracle - Not as easy as it sounds?' *Oxford Review of Economic Policy*. 22(4) pp 539-559.
- Keep, E., and Mayhew, K (2014) 'Inequality - 'wicked problems', labour market outcomes and the search for silver bullets', *Oxford Review of Education*. 40(6) pp 764-781.
- Kirby, P. (2016) 'Degrees of debt. Funding and finance for undergraduates in Anglophone countries', The Sutton Trust, London.
- Le Grand, J. (2006) 'Choice and competition in Britain's national health service', *Eurohealth*, 12 (1), pp 5-7.
- Le Grand, J. (2007) 'The other invisible hand: delivering public services through choice and competition', Princeton University Press.
- Leadbeater, C. (1999) 'Living on Thin Air', London: Viking.
- McGettigan, A. (2015) 'The accounting and budgeting of student loans'. Oxford: Higher Education Policy Institute.
- McIntosh, S. (2004) 'The returns to apprenticeship training', CEPDP 622 LSE: Centre for Economic Performance.
- McIntosh, S. (2006) 'Further analysis of the returns to academic and vocational qualifications', *Oxford bulletin of economics and statistics*, 68(2), pp 225-251.
- McIntosh, S. (2013) 'Hollowing out and the future of the labour market', BIS Research Paper, 134.
- McLaughlin Review (2013) 'It's about work: excellent adult vocational teaching and learning Summary report of the Commission on Adult Vocational Teaching and Learning', London: BIS.
- Milanovic, B. (2016) 'Global inequality: A new approach for the age of globalization', Harvard University Press.
- National Audit Office (2014) 'Investigation into financial support for students at alternative education providers', report by the Comptroller and Auditor General.
- National Union of Students (2015) 'Debt in the first degree Attitudes and behaviours of the first £9k fee paying graduates'. Retrieved from <http://s3-eu-west-1.amazonaws.com/nusdigital/document/documents/16867/0212d732f9742d75af05907fe70f27dc/Debt%20in%20The%20First%20Degree%20-%20Graduates%20Survey%202015%20Report.pdf>.
- Newman, J. H. (1852) 'The Idea of a University', London: Longmans.
- Noonan, P. and Pilcher, S. (2015) 'Financing tertiary education in Australia – the reform imperative and rethinking student entitlements', Melbourne: Mitchell Institute for Health and Education Policy.

- Norton, A. (2012) 'Mapping Australian higher education', Melbourne: Grattan Institute.
- Norton, A. and Cherastiditham I. (2014) 'Doubtful debt: the rising cost of student loans Melbourne': Grattan Institute.
- OECD (2015) 'Education at a Glance 2015: OECD Indicators', OECD Publishing, Paris.
- Office for Budget Responsibility (2013), 'Fiscal Sustainability Report'.
- Office for Budget Responsibility (2016) 'Economic and Fiscal Outlook – March 2016'.
- Office for Budget Responsibility (2016a) 'Fiscal sustainability analytical paper: Student loans update'.
- Office For Fair Access (2016) '2017-18 access agreements: institutional expenditure and fee levels'.
- Porter, N., & Simons, J. (2015) 'Higher, Further, Faster, More Improving Higher Level Professional and Technical Education', London: Policy Exchange.
- Purcell, K., Elias, P., Atfield, G., Behle, H., Ellison, R., Luchinskaya, D., Snape, J., Conaghan, L., Tzanakou, C. (2012) 'Futuretrack Stage 4: transitions into employment, further study and other outcomes'. Full Report', University of Warwick, Warwick.
- Purcell, K., Elias, P. (2015, December 22) 'Does Britain have too many graduates?'. Retrieved from <http://theconversation.com/does-britain-have-too-many-graduates-46349>.
- Reeves, R. (2015, September 10) 'Not just the 1%: Upper middle class income separation'. Retrieved from <https://www.brookings.edu/blog/social-mobility-memos/2015/09/10/not-just-the-1-upper-middle-class-income-separation/>.
- Rehn, T., Brandt, G., Fabian, G., Briedis, K. (2011) 'Hochschulabschlüsse im Umbruch. Studium und Übergang von Absolventinnen und Absolventen reformierter und traditioneller Studiengänge des Jahrgangs 2009'. Forum Hochschule, HIS and BMBF.
- Sainsbury Review: the report of the Independent Panel on Technical Education (2016) London: Department for Education and Department for Business Innovation and Skills.
- Shephard, N. (2013) 'The actual financing costs of English higher education student loans' <http://www.economics.ox.ac.uk/materials/papers/12748/2013-W06.pdf>.
- Shury, J., Adams, L., Barnes, M., Huntley Hewitt, J., and Oozeerally, T. (2016) 'Understanding the Market of Alternative Higher Education Providers and their Students in 2014', IFF Research for the Department of Business Innovation and Skills.
- Sloane, P. J. and N. C. O'Leary (2005) 'The return to a university education in Great Britain', National Institute Economic Review, 75.
- Smith, J. and R. A. Naylor (2001) 'Determinants of individual degree performance: Evidence for the 1993 UK university graduate population from the USR', Oxford Bulletin of Economics and Statistics 63.
- Spence, M. (1973) 'Job Market Signalling' The Quarterly Journal of Economics 87.3, pp 355-374.
- Stevens, R. (2004) 'University to Uni: the politics of higher education in England since 1944', London: Politico's.
- National Audit Office (2013) 'Student loan repayments'.

- Student Loans Company (2015) 'Student Support for Higher Education in England 2015: 2014/15 payments, 2015/16 awards'. Retrieved from: <http://www.slc.co.uk/media/6669/slcsfr052015.pdf>.
- Susskind, R. E., & Susskind, D. (2015) 'The future of the professions', Oxford University Press.
- Thomson, A., (2016) 'Young turn their noses up at university places', The Times 20 August 2016.
- UK Commission for Employment and Skills (2016) 'Employer Skills Survey 2015:UK Results'.
- Universities UK (2015) 'Patterns and trends in UK higher education 2015'.
- Walker, I. and Zhu, Y. (2011) 'Differences by degree: evidence of the net financial rates of return to undergraduate study for England and Wales', Economics of Education Review 30.
- Weinberger, C. and Kuhn, P. (2006) 'The narrowing of the US gender gap 1959-1999' NBER Working Paper 12115. Cambridge, MA: National Bureau of Economic Research.
- Willetts, D. (2015) 'Higher Education Who benefits? Who pays?', The Policy Institute, King's College London.
- Wolf, A. (2002) 'Does Education Matter? Myths about education and economic growth', Penguin Press, London.
- Wolf, A. (2009) 'An adult approach to further education', Institute of Economic Affairs Monographs.
- Wolf, A. (2010) 'How to Shift Power to Learners: encouraging FE dynamism, replacing centralised procurement' London: Learning and Skills Network.
- Wolf, A. (2013) 'The XX factor: How working women are creating a new society'. London: Profile Books.
- Wolf, A. (2015) 'Heading for the Precipice: Can further and higher education funding policies be sustained', London: The Policy Institute, King's College London.