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INQUIRY

How higher education can boost people-powered growth

David Willetts
October 2023



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As the UK is buffeted by the economic shocks and challenges of the 2020s, The Economy 2030 Inquiry, a collaboration between the Resolution Foundation and the Centre for Economic Performance at the London School of Economics (LSE), funded by the Nuffield Foundation, is setting out a new economic strategy. To feed into this process we are publishing a series of externally-written policy essays. Each aims to provoke public debate on a specific policy area, and sketch out an agenda that will contribute towards the wider goal of the UK becoming a higher growth, lower inequality economy.

The essays cover topics ranging from the role of smarter regulation in supporting economic growth, ensuring that the goal of 'good jobs' is embedded in our national industrial strategy, and the role of the higher education sector in providing the skills needed to power our services dominated economy.

They are written by a range of leading economists and policy experts, and reflect the views of the authors rather than those of the Resolution Foundation, the LSE or The Economy 2030 Inquiry.

They have been commissioned and edited by Gavin Kelly (Chair of the Resolution Foundation and member of the Economy 2030 steering group) and various members of The 2030 Economic Inquiry team, in this case Mike Brewer (Deputy Chief Executive and Chief Economist at the Resolution Foundation) and Louise Murphy (Economist at the Resolution Foundation).

The Economy 2030 Inquiry

The Economy 2030 Inquiry is a collaboration between the Resolution Foundation and the Centre for Economic Performance at the London School of Economics, funded by the Nuffield Foundation. The Inquiry's subject matter is the nature, scale, and context for the economic change facing the UK during the 2020s. Its goal is not just to describe the change that Covid-19, Brexit, the Net Zero transition and technology will bring, but to help the country and its policy makers better understand and navigate it against a backdrop of low productivity and high inequality. To achieve these aims the Inquiry is leading a two-year national conversation on the future of the UK economy, bridging rigorous research, public involvement and concrete proposals. The work of the Inquiry will be brought together in a final report in 2023 that will set out a renewed economic strategy for the UK to enable the country to successfully navigate the decade ahead, with proposals to drive strong, sustainable and equitable growth, and significant improvements to people's living standards and well-being.

Introduction

The Economy 2030 Inquiry (a collaboration between the Resolution Foundation and the Centre for Economic Performance at the London School of Economics) is setting out a strategy for a dynamic, growing, and equitable economy in 2030.¹ Higher education plays a key role in achieving that.

Higher education brings benefits to individuals, to the wider economy and to society. From America's post War GI Bill to the transformation of Korea, more people getting more education is one of the most powerful tools which a government has to transform its economy. The OECD estimate that every extra year of education boosts long term growth by 3 to 6 per cent.² Future participation in higher education is a key factor in its assessment of the long-term growth prospects of different economies. However, there is a new mood of edu-scepticism which casts doubt on such an optimistic view of the value of education and inhibits governments from investigating how higher education can best contribute to growth. So we begin with the evidence on returns to higher education, both to the individual and more widely.

Apparent contrasts between academic and vocational education or between higher education and further education can also generate confusion and conflict, but actually they are often closely linked and complementary. David Hume put the point beautifully:

*"An advantage of industry and of refinements in the mechanical arts is that they commonly produce some refinements in the liberal; nor can one be carried to perfection without being accompanied, in some degree, with the other. The same age, which produces great philosophers and politicians, renowned generals and poets, usually abounds with skilful weavers and ship-carpenters. We cannot reasonably expect that a piece of woollen cloth will be wrought to perfection in a nation which is ignorant of astronomy or where ethics are neglected."*³

As we have moved from a small, elite, socially selective higher education to large-scale, inclusive, mass higher education, so its inter-connections with and importance for the wider economy have grown. This paper focusses on strengthening four points of connection with the wider economy.

The Economy 2030 Inquiry has already shown that we need to boost investment.⁴ Investing in human capital is a key part of that – indeed it is hard to see how we can deliver more investment in business, infrastructure, and the net zero transition unless we also invest in people. Another theme of the inquiry is the need for mobility, flexibility and dynamism.⁵ So investment in human capital should not trap people in particular industries or places – stranded assets come in many shapes and sizes. Higher education can help ensure we are more skilled and more flexible through our careers, with Level 4

1 All Economy 2030 Inquiry reports, and further details about the project can be found at: economy2030.resolutionfoundation.org/reports. The project's interim findings can be found in: Resolution Foundation & Centre for Economic Performance, LSE, [Stagnation nation: Navigating a route to a fairer and more prosperous Britain](#), Resolution Foundation, July 2022.

2 OECD, [Education at a Glance 2006](#), September 2016.

3 D. Hume, [Of Refinement in the Arts](#), in Hume's Essays, Cambridge University Press, 1994.

4 See: F Odamtten & J Smith, [Cutting the Cuts: How the public sector can play its part in ending the UK's low-investment rut](#), Resolution Foundation, March 2023; and: P Brandily et al., [Beyond Boosterism: Realigning the policy ecosystem to unleash private investment for sustainable growth](#), Resolution Foundation, June 2023.

5 R Davies, N Hamdan & G Thwaites, [Ready for change: How and why to make the UK economy more dynamic](#), Resolution Foundation, September 2023.

and 5 qualifications an important but under-valued part of higher education.⁶ We can do more to incentivise higher education to do this even better, and continue to engage with graduates, promoting greater mobility over a full working life.

A second theme of the Inquiry is that the UK has a comparative advantage in service industries.⁷ It is easy to assume this just means financial services but that would be a mistake. Higher education is a key service industry where we clearly have a comparative advantage. It is at the early stages of globalisation and so far shows no signs of the deglobalisation affecting other key sectors. We can make more of this export sector.

Third, the Inquiry has shown that many other advanced economies do better than the UK at sharing the benefits of growth more widely. Indeed, there may be stronger support for the difficult and uncomfortable measures required to promote growth if more people can hope to benefit from it. The pessimists fear higher education is part of the problem. Graduates earn more than non-graduates. Cambridge, for example, is one of Britain's most unequal cities. But higher education is also part of the solution. Higher education is the only stage of education where people from disadvantaged backgrounds, rather than falling further behind, actually catch up on those who are more advantaged. Universities can revitalise towns and cities. We should promote the creation of new universities and other higher education institutions as drivers of opportunity for less affluent people and in cold-spots where there is no easy access to them nearby.

Fourth, innovation is a key driver of growth. Most of Britain's R&D happens in universities. There is a lot of truth in the familiar observation that we have universities at the top of global league tables for world class research, but we then fail to commercialise our research successfully and apply it in business. Tackling this is a way to boost growth.

The Inquiry is focussed on where the British economy can get to by 2030. That date matches very neatly the opportunities facing higher education. Britain had a surge in the birth rate over the first decade of the new century, rising from a historic low point of 670,000 births in 2001 to a peak of 810,000 in 2012. That 25 per cent increase over the period feeds through into more young people entering higher education and the jobs market over this decade. It is an important demographic backdrop to the wider inquiry. This surge in the number of young people is an opportunity for innovation and reform in higher education and the labour market, as was the similar surge in the 1980s. This paper sets out how we can seize that opportunity to reform higher education and boost growth.

⁶ Level 4 and 5 qualifications are beyond A Levels but short of a full honours degree, and often cover technical education. England has an unusual dip in the number of people doing these. For more discussion of the value of Level 4 and Level 5 qualifications, see: R Costa et al, [Learning to Grow: How to situate a skills strategy in an economic strategy](#), Resolution Foundation, October 2023,

⁷ J De Lyon et al., [Enduring Strengths: Analysing the UK's current and potential economic strengths, and what they mean for is economic strategy at the start of the decisive decade](#), Resolution Foundation, April 2022.

Returns to higher education

Higher education brings returns both to individuals and to wider society. These can be direct economic returns or non-financial social returns. Putting these together yields a quadrant of benefits as shown in Figure 1 below.

FIGURE 1: Higher education brings returns both to individuals and to wider society

Individual non-economic benefits: <ul style="list-style-type: none"> • Longer life expectancy • Better health 	Individual economic benefits: <ul style="list-style-type: none"> • Higher earnings • Less likely to be unemployed
Wider non-economic benefits: <ul style="list-style-type: none"> • Lower crime rate • More likely to volunteer and vote 	Wider economic benefits: <ul style="list-style-type: none"> • More tax receipts • Increased exporting

The examples in each of these quadrants are supported by robust empirical evidence. Often the research allows for selection effects – it is not just telling us about the type of people who go to university. And anyway, the belief that there is something inherently special about people who go to university is deeply unpleasant. Instead, the evidence is that three years at university changes people – just like the experiences of the first three years or three years in the army, or on an apprenticeship – or indeed three years in prison. Going to university turns out people who are, in general, more productive and more useful than when they started. We all gain if everyone who could benefit from such an experience has access to it.

Some of the effects identified in the quadrant overlap. For example, the employment rate among disabled people is 72 per cent for those with a degree, compared with 45 per cent for those whose highest qualification is at GCSE Level – a personal economic benefit to them and a wider economic gain too. Prisoners who receive funding to undertake Open University courses have a reoffending rate four to eight percentage points lower than similar prisoners who do not – a non-economic return benefiting both individuals and society.⁸ The most vivid benefit of higher education is that graduates earn more than non-graduates, as shown in Figure 2.

FIGURE 2: Graduates earn more than non-graduates

Median wages of non-graduates, graduates and post-graduates, by age group: UK, 2019

	Non-graduates	Graduates	Post-graduates
Aged 18-64	£25,000	£34,000	£42,000
Aged 21-30	£21,500	£27,000	£30,500

SOURCE: Analysis of ONS, Labour Force Survey.

This is a clear result even after allowing for selection effects so comparing people with similar backgrounds and experiences who go or do not go to university. There have been a range of natural

⁸ Both examples in this paragraph are from: Office for Students, [English higher education 2019: The Office for Students annual review](#), December 2019.

experiments around the world such as lotteries when higher education is over-subscribed. There is also recent UK evidence using detailed HMRC data on incomes linked to education and social data. After allowing for the different social composition of graduates and non-graduate, this work concludes that:

“At age 30, we find gross earnings returns of around 6 per cent for state-educated men and around 27 per cent for state-educated women. If anything, returns are somewhat higher for state-educated students from the poorest 20 per cent of families, with returns at around 7 per cent for men and 31 per cent for women...For women, the average return varies between £140,000 for the bottom quintile and £70,000 for the top state quintile. For men, the returns are similar to the estimates for women for the bottom four SES quintiles, but higher at around £110,000 for the top state SES quintile, while for the privately educated the returns are much higher at around £250,000.”⁹

The Robbins Report set out the utilitarian case for a university - citing Confucius:

“Confucius said in the Analects that it was not easy to find a man who had studied for three years without aiming at pay. We deceive ourselves if we claim that more than a small fraction of students in institutions of higher education would be where they are if there were no significance for their future careers in what they hear and read; and it is a mistake to suppose that there is anything discreditable in this.”¹⁰

Robbins however also said that a course at university should be taught in such a way as to “promote the general powers of the mind” and should operate on a “plane of generality”. So a teaching course at a higher level might include some child psychology or a computing course go beyond mastering current coding and software. That investment in higher education pays off over the long term. Compared with apprentices who get to an earnings plateau more quickly, graduate earnings tend to carry on rising for longer – university is a long-term investment, which the increasing focus on earnings or employment status after a period as short as 15 months obscures. One estimate by the doyen of these studies – Professor Eric Hanushek – is that the cross-over when earnings of people with general higher education overtakes those with vocational education is 30.¹¹ A specific study of England shows these effects quite strongly. For men, going down the vocational route rather than the academic route reduces earnings by 11 per cent (£2,900) by age 29. For women it is minus 8 per cent, a reduction in earnings of £1,700.¹² So it is rather like the tortoise versus the hare. Academic general education can be a better longer-term path with more protection from technological and industrial change. A theme of this Inquiry is to promote long-term returns from increased investment, and official assessments of returns to education should focus on lifetime earnings not short-term benefits, real though these are.

One interpretation of these significant findings is that we should try to change the structure of the British labour market so that it does not yield such findings – the obvious alternative model is

9 J Britton, L Dearden & B Waltman, [The returns to undergraduate degrees by socio-economic group and ethnicity](#), IFS, March 2021.

10 L Robbins, Higher Education: report of the Committee appointed by the Prime Minister under the chairmanship of Lord Robbins, 1961-1963.

11 S McNally, G Ventura & H Virtanen, Returns to vocational education and training, in K F Zimmerman (ed.), Handbook of labor, human resources and population economics, Springer Chem, July 2022.

12 S H Matthews & G Ventura, [On Track to Success? Returns to vocational education against different alternatives](#), CVER Discussion Paper 38, November 2022.

Germany Economies such as the UK and the US – with open, mobile, liberal labour markets – tend to have higher rates of participation in higher education. By contrast, the classic German model of more ‘license to practice’ regulation tends to be associated with more apprenticeships and lower rates of higher education participation. Germany also has sustained support for key business sectors, with soft funding from regional banks, aversion to competitive take-overs and compulsory membership of Chambers of Commerce. That is an economic environment in which there are unusually large numbers of apprenticeships compared with other Western economies. It is hard to see the UK adopting the German approach.

Moreover, one message from this economic Inquiry is that Britain needs more economic change not less. And the level of education and training required for an increasing number of jobs is so demanding that vocational training increasingly happens at the level of higher education even in Germany. (The German Technische Hochschule, seen by British admirers as the epitome of vocational education and easily mistranslated as a technical high school, is actually a university of applied sciences.) It is one reason why we should be aiming to increase higher education at Levels 4 and 5 by boosting progression from Level 3 rather than trying to cut numbers achieving Level 6. Apprenticeships at these levels, a form of higher education, are particularly valuable.

The boost to individual earnings is only part of the wider economic returns to higher education. As well as gains to individuals through the graduate premium, there is also a boost to wider performance of the economy through increased productivity. Cross-national research by Eric Hanushek shows that economic growth and rising productivity are heavily driven by extra years of education, with each year of schooling associated with long-run growth that is 0.58 percentage points higher, though this crucially depends on the quality of education measured in tests of cognitive skills, particularly shown in internationally standardised maths and science tests.¹³ Ten years ago the LSE’s Growth Commission investigated the improvements in British GDP per capita compared with France, Germany and the US from 1979. Increasing competition in the labour market and in product markets was a key factor, but so was “a sustained expansion of the higher education system.”¹⁴ Jonathan Haskel also found that the increase in employed university graduates between 2000-2007 accounts for 15 per cent of growth in the UK over that period.¹⁵

There are some low-value courses, but overall the graduate premium has remained pretty high, though affected by the wider slow-down in pay growth. Indeed, some are surprised that the long-term increase in student numbers has not eroded more of the graduate premium. One answer is that if there are more graduates in a company’s workforce it moves to a more decentralised form of management and decision-taking which is more efficient.¹⁶

13 A Hanushek & L Wosmann, Education and Economic Growth in E Baker, B McGaw & P Peterson (eds.), International Encyclopaedia of Education, Elsevier, 2010.

14 T Besley, M Coelho & J Van Reenen, [Investing for Prosperity: Skills, Infrastructure and Innovation](#), National Institute Economic Review 224(1), May 2013.

15 J Haskel, [How much do UK Universities contribute to Economic Growth?](#), Memorandum submitted to the Science and Technology Committee, January 2010

16 See: R Blundell, D Green and W Jin, [The UK Wage Premium Puzzle: How did a Large Increase in University Graduates Leave the Education Premium Unchanged?](#), IFS, January 2016. Other work suggests a different pattern across regions, with the premium falling in regions outside London. Nonetheless, even outside London, the graduate wage premium was still 30 per cent in 2019. Thus, this observation does not change the substantive point that graduates are in high demand across the country. See: A Stansbury, D Turner & E Balls, [Tackling the UK’s regional economic inequality](#), Mossavar-Rahmani Center for Business and Government Working Paper No. 198, March 2023.

There is also a tendency to think that STEM subjects are key to growth. They are certainly valuable. But a modern economy is inter-dependent. Britain's strength in biotech is partly due to the international reputation of its Human Embryology and Fertilisation Authority, which in turn rests on work by the Oxford moral philosopher Mary Warnock.

Related work for the Economy 2030 Inquiry examined the particular skills needed by three sectors of strategic importance to the UK. They concluded:

*Jobs in the Creative Industries require specialised skills in areas such as Media and Communications, Marketing and Public Relations, Design and Science and Research, all of which show shares much higher than the average job advertised. Likewise, Financial and Business Services jobs require strong background skills in Business, Finance, Analysis and Administration. Life Science jobs require specialised skills in Science and Research, Manufacturing and Production, and Engineering, reflecting the R&D intensive and manufacturing activities in the sector. Employers also expect solid backgrounds in complementary skills such as Information Technology and Analysis. But, crucially, the common pattern is the emphasis on skills that enable workers to perform abstract and analytical non-routine tasks.*¹⁷

On a more down-to-earth level, there is renewed pressure from both main political parties to get on with more construction projects more quickly, but one barrier is the shortage of archaeologists who are required by law to do exploratory excavation before major development. Spadework comes in many shapes and sizes.

Higher education, further education and the challenge of Levels 4 and 5

There are often confused arguments about 'higher education versus further education', or 'academic study versus vocational training', which can get in the way of good policy.

Higher education is education at Level 4 or above, and universities are a type of institution delivering education at those levels. Colleges and other higher education institutions can also deliver higher education, but what makes an institution a university is the power to grant their own degrees.

On the other hand, further education is not a level of education. It is best defined simply as what further education colleges do. They are large, lively institutions with an extraordinary mix of ages and types of course. They deliver courses for 16-18-year-olds as an alternative to schools (indeed, there are some local authorities, such as Hampshire, where schooling ends at sixteen and all A Level provision is in colleges). 16-18-year-olds are the biggest single group of students at FE colleges, so if FE colleges face any institutional competition it is more with school sixth forms than universities. Colleges also deliver vocational courses for local employers, including the educational element of an apprenticeship. They also deliver adult education programmes, ranging from English as a second language through to higher education with a degree validated by a university. They have been called the 'everything else' sector.

There is no neat divide between vocational study in FE and academic study in university. A mature learner keen to understand the meaning of life might do a philosophy course at the local college. There are universities whose origin is as a teacher training college and which now specialise in

¹⁷ R Costa et al, [Learning to Grow: How to situate a skills strategy in an economic strategy](#), Resolution Foundation, October 2023.

delivering vocational degree courses for key public services, such as teaching, nursing and social work. As these roles become ever more complex and demanding, increasingly they require higher education. For example, an international survey shows patient mortality falls by 7 per cent for every 10 per cent increase in nurses with degree-level education.¹⁸ The key point is that many university courses are as job-related as courses taught in FE colleges.

There is, however, a gap. Although higher education is for Level 4 and beyond, it has tended to focus on Level 6 – the honours degree. There are few shorter courses for diplomas at Levels 4 and 5; as a result, England has many fewer people qualified at this level than other advanced economies.¹⁹ There are just two diplomas of any significance available at these levels: they are in engineering and nursing. They show very high returns, although the evidence base is small.²⁰ Historically, the rules for accessing student loans have tended to exclude qualifications at this level. The new Lifelong Loan Entitlement is an excellent initiative intended to plug this gap, but there are however still tricky issues and barriers to be overcome.

One tricky issue is whether this is intended to expand or reduce our overall level of education. Some of the edu-sceptics would be very happy if young people who would instead have gone on to an honours degree instead settle for a qualification at Levels 4 or 5. The system should certainly be open and flexible enough to allow this, but such an outcome is unlikely and, in most cases, undesirable. England's proportion of university graduates is not some eccentric outlier: it is slightly higher than the OECD average, but not by much, and is comparable with Australian and the US. Our problem is not too many university graduates. Our problem is that not enough people get to Level 3 and, of those, too many stop there rather than advancing further.²¹ Level 4 and 5 qualifications are an opportunity to reach these people who may not be attracted by a full honours degree.

As well as these deep disputes about access to education, there are also practical issues which impede progress, such as whether these courses are best delivered by FE colleges or universities. There are arguments for each option. FE colleges have good links to local employers and are well suited to vocational courses of one or two years. But they face acute staffing pressures, and some technical courses also need expensive kit to deliver an up-to-date training. A university with a budget of £300 million is more likely to have the resources to provide such kit than a college with a budget of £30 million. So the best approach is to promote collaboration between colleges and universities to deliver such courses. It is hoped that the Lifetime Loan Entitlement will spur new provision, but this may require pump-priming funding distributed according to priorities for education and training, and a preference for FE/HEI collaboration could be a feature of these. More generally, funding pots that support both higher education institutions and further education colleges to work together to support access to Levels 4 and 5 should be created. This would also require simplification of the very different regulatory regimes for FE and HE (the nightmare would be that Ofsted, the Office for Students and IfATE all got involved – which would probably kill any such initiative). There also needs to be a demand

18 L Aitken et al, [Nursing Staffing and Education and mortality in nine European countries: a retrospective observational study](#), The Lancet Volume 383 Issue 9931, February 2014.

19 See: S Field, [The Missing Middle: Higher Technical Education in England](#), The Gatsby Foundation, December 2018. See also: R Costa et al, [Learning to Grow: How to situate a skills strategy in an economic strategy](#), Resolution Foundation, October 2023; R Layard, S McNally & G Ventura, [Applying the Robbins Principle to further education and Apprenticeships](#), Resolution Foundation, October 2023.

20 J Britton et al, [Post-18 Education: Who is Taking Different Routes and How Much do they Earn?](#), CVER Briefing Note 013, September 2020.

21 R Layard, S McNally & G Ventura, [Applying the Robbins Principle to further education and Apprenticeships](#), Resolution Foundation, October 2023.

strategy that significantly raises employer and learner (and even parental) awareness of the range and value of Level 4 and Level 5 qualifications.²² IfATE could also fund the development of new Level 4 or Level 5 technical qualifications in areas where skills needs have been identified in the new Local Skills Improvement Plan (LSIP). Employers could also promise interviews for people on those qualifications. The LSIP could promote schemes to showcase the jobs that are likely to be available for people with those qualifications and what the pay would be.

The new Lifelong Loan Entitlement scheme has been designed to help these courses, but there is not yet a clear policy on the living costs of students doing these courses. There is a maintenance loan for university students, although its value is being steadily eroded by inflation. The Educational Maintenance Allowance for FE students was completely removed. Some form of means-tested assistance for Level 4 and 5 students would be desirable, if resources permitted.

Funding higher education – and funding apprenticeships

There are now two main streams of funding education and training for over eighteen-year-olds: student fees and loans, and the apprenticeship levy. We discuss these both below.

Higher education is funded by fees, met by loans to students, meaning that the student does not pay up-front. It is in essence a graduate repayment system. The history of how to fund higher education is long and complicated, with early years and primary schooling long being the priority for public expenditure on education. By 1997, the problem of under-funding of higher education had become so bad that both Conservative and Labour parties recognised that an alternative model was needed. As graduates tend to earn more than non-graduates, a fair and progressive alternative was available: to expect them to pay for their higher education if above an income threshold. Up-front fees were introduced in 1998, although without loans specifically to cover them until the introduction of the current system in 2006, with fee loans repayable on an income-contingent basis. All three main political parties have supported and developed that system when in government. It is a good example of a cross-party consensus, with the current model operating now for almost twenty years. It addresses the financing problem, and it is also fair and progressive, a point Karl Marx made with typical robustness in his critique of a proposal from the German Social Democrats for public funding for higher education:

“If...higher education institutions are also “free”, that only means in fact defraying the cost of education of the bourgeoisie from the general tax receipts.”²³

The student loan is not a conventional commercial debt – it is an income-contingent loan repaid at a rate of 9 per cent on earnings above £25,000.²⁴ That means that a graduate’s earnings have to reach £38,000 before they are paying £100 per month. MPs do not get flows of complaints from graduates about their repayments. While there is anxiety about £50,000 of ‘debt’, this is not like an overdraft or a credit card debt which would directly reduce the amount of mortgage a graduate could take out. The payments are treated by mortgage lenders as a fixed out-going, rather like Income Tax payments. Indeed, that other similar “debt” – the amount of income tax the average British adult is expected

²² A recommendation also made in: R Costa et al, [Learning to Grow: How to situate a skills strategy in an economic strategy](#), Resolution Foundation, October 2023.

²³ K Marx, Critique of the Gotha Programme, 1875.

²⁴ This annual threshold of £25,000, and repayment rate of 9 per cent, applies to Plan 5 student loans. See: www.gov.uk/repaying-your-student-loan/what-you-pay, accessed 23 October 2023.

to pay over their lives – stands at about £500,000. As well as the graduate, the Exchequer also contributes to funding higher education – through extra grants for high-cost subjects and by writing off some of the loans to graduates in low paid jobs.

There is, of course, a legitimate debate about the balance between graduate payment and public support and the overall calibration of the system. Are fees, pretty much frozen for a decade, providing enough resource for universities, and, if not, should they go up or public grants go up? Is 9 per cent the right repayment rate? Should the repayment threshold be adjusted, perhaps with some formula linking it to earnings? The most hated part of the system was the interest rate, which was, ironically, a progressive feature to collect more from high-paid graduates before they pay off their loans; as we have seen recently, that too can be changed.

So there should be a more open, evidence-based, debate about all these features so that the system is adjustable and can reflect changing political judgements. That could be achieved through a quinquennial review of fees and loan terms, so that the system can be re-calibrated without tearing it all down and starting again. This is increasingly urgent as the cash freeze in the value of students' fees for over a decade (with the exception of one increase to £9,250) is now doing real damage to the quality of education. No other stage of education has been expected to operate with flat cash funding for a decade. Raising fees has no effect on the cost of living crisis as students do not pay up-front. Nor would it affect the monthly payments made by graduates. The only difference is in the time it takes to repay the loan so prosperous graduates in their forties or fifties find that they are paying for an extra few years.

One major advantage of the current scheme is that it removes artificial constraints on the size of the HE sector. Historically, UK governments have exercised controls on funding higher education, either by big reductions in the unit of resource per student (in the 1980s) or by explicit control of student numbers university by university (maximum allowable student number controls were introduced in 1993). In 2010, I inherited a system which set a precise limit on the number of students in each individual university in the country, and Scotland still has such a system. Controlling student numbers was how the Treasury controlled public spending when universities were heavily dependent on public spending. But the downside to this is that the least advantaged, marginal applicants lose out when places are rationed. One of the big gains from moving to a largely fees and loans system was that the Treasury had less of an interest in saving money by controlling student numbers. The increase in the number of places after we moved fully to fees and loans particularly boosted participation among the most disadvantaged groups. Removing number controls boosted growth and social mobility. It was not just a permanent feature of HE: it was a result of the reforms to the way universities were funded. And now that the freeze in fees is beginning to deplete the resources universities have available to fund students, leading to fewer places than would have otherwise have been available, reducing opportunities for disadvantaged students as a result.

One alternative to the whole system is a full graduate tax. This was the subject of an intense argument between Gordon Brown and Tony Blair when the model was first developed twenty years ago, and it resurfaces from time to time. There are strong similarities between income tax and the current set of income-contingent loan repayments. But there are some crucial differences too. Loan repayments are capped – it is not simply a permanent higher rate of tax because you are a graduate. If a graduate and a non-graduate are each earning the same amount, but one is having an extra 9 per cent of any

additional earnings deducted, it is understandable and defensible if that is to pay for the cost of their higher education. But it would be much harder to defend if one was paying more tax throughout their lives just because they went to university. For those specific courses which lead to careers with high earnings, there would be a very substantial cost of lifetime higher tax for studying at an English university, creating an incentive to study or work abroad. Indeed, that is one reason why no country has a higher rate of tax for graduates.

In the current system, the payment is not just capped: it is also directly linked to the university where you studied. The fee, although not paid by the student up-front, is the basis for a direct contractual relationship between the student and the university which would not exist if it were funded out of a tax. This direct link is key to the reform proposal in the next section.

Some who like the idea of loans wonder whether the principle could be extended further. The Lifelong Loan Entitlement now being introduced by the Government only applies the loans for Level 4 and above. It reinforces the view that repayable loans are a viable way of funding levels of education, higher than secondary levels of education. There have been attempts to extend loans further – for example, to help funding some Level 3 qualifications. But very few of them lead to high earnings on their own, so if there were to be a repayable loan then there would have to be a very low repayment threshold to collect some funding.

So as well as using loans to fund higher levels of skill acquisition, we have an alternative system for funding apprenticeships – the Apprenticeship Levy, which is discussed in a companion report for the Economy 2030 project.²⁵

This year, there are about 40,000 degree apprenticeship starts, but the majority are for older people who already work for the company.²⁶ Only 6,400 are for under 19s. Employers tend to go for older employees so they can be more confident that they have a committed employee who will stick with them in return for their spending through the apprenticeship levy. Moreover, as the levy is close to fully spent, there is a constraint on the growth of degree apprenticeships. If they are to grow, as ministers wish, they need a new funding model which is not limited in this way.

Degree apprenticeships are strongly backed by ministers and favoured by the commentators. The student/apprentice ends up with a degree level qualification without ever paying anything – what can be better than that? But they have to be paid for somehow. Some of them cost £25,000 or more to deliver – much higher than earlier stage apprenticeships at lower educational levels. And, as the apprenticeship levy income is limited, that means these degree apprenticeships are displacing apprenticeships at lower levels for younger apprenticeships. So Karl Marx's challenge is very pertinent. Indeed, it is even more pertinent here, as for any given subject available both as a standard degree or a degree apprenticeship the degree apprentices are more likely to be male and white, and less likely to be disabled or to come from a low-income background. Fewer degree apprentices are eligible for free school meals than those attending university, at 5 per cent and 7 per cent respectively.²⁷ So funding degree apprenticeships out of a levy on employers, but not funding usual university students, is hard

²⁵ R Layard, S McNally & G Ventura, [Applying the Robbins Principle to further education and Apprenticeships](#), Resolution Foundation, October 2023.

²⁶ For the 2021/22 academic year, there were 43,200 apprenticeship starts in degree-level apprenticeships. See: DfE, [Academic year 2022.23: Apprenticeships and traineeships](#), October 2023.

²⁷ C Cavaglia, S McNally & G Ventura, [The Recent Evolution of Apprenticeships: Participation and Pathways](#), CVER Research Discussion Paper 039, December 2022.

to defend, and one way to release more resources for other apprenticeships would be to fund degree apprenticeships out of the standard higher education fees and loans model. This would release resources from the levy to focus on younger apprentices and courses at Levels 2 and 3. It would also enable degree apprenticeships to grow, free from the constraint set by the size of the levy.

Getting universities to focus more on boosting the earnings of their graduates

I fought a long battle when in government for researchers to have access to income tax records so we could get much more granular data linking graduates' earnings to the degrees they studied. There is, of course, more to university than this. But it is a different measure of performance than teaching quality, which can yield very different assessments. And it is information which prospective students should be able to see – those were the days when the National Union of Students worked with the Consumer Association on providing access to such information.

The information was also relevant to the Treasury because it gave much more granular estimates of the Resource Accounting Budget (RAB) charge. This is a concept of enormous almost theological significance in university finance. It is a forecast of the proportion of a student loan which will have to be written off by the Exchequer. Behind it are many tricky questions. What discount rate should be used for the value of future payments – a rate higher than the actual cost of Government borrowing could skew the results? An individual's earnings can bounce around during their working lives but the simplest way to forecast, used by some external models, is to assume a fan of divergent straight lines for earnings. And as graduate repayments can stretch out over forty years forecasts have to make big assumptions about major labour market trends such as how far female lifetime earnings catch up with men. There was a campaign to treat the RAB charge as if it were just public spending – so taking measures to cut it such as increasing repayments could yield an apparent resource to be spent on other favoured projects now. But the RAB charge is a forecast of loan write-offs: it isn't a simple fact about cash spent now, and the Treasury do not treat it as such, so reducing the RAB charge does not immediately release money for any other purpose. The cash which goes out on student loans does not count as public expenditure, but it does add to the National Debt: the asset which it acquires is not regarded as sufficiently liquid to be a financial asset to offset the loan. The Treasury are willing to see universities increasingly underfunded as that holds down the National Debt.

The RAB charge nevertheless does command attention: if it goes up this can be regarded as a significant shift in the balance of funding between tax-payers and graduates. It is identified as a line in the public accounts and would be a key issue for the quinquennial review. When Theresa May increased the repayment threshold to £25,000, after which indexation increased it to £27,000, it pushed up the RAB charge a lot. That was sometimes interpreted in the media as evidence of a fall in the labour market performance of graduates when it was just the consequence of a mistaken political decision taken in a rush to have something to announce in a party conference speech. The Government was right to lower the repayment threshold back to £25,000.

The HMRC data on earnings enables RAB charges to be calculated for specific university courses above a minimum size. The Government is keen to use the data on graduate earnings as a basis for specific interventions by the Office for Students which, at the extreme, could mean instructing universities to close down certain courses. There are problems with this approach. First, the Office for Students may want to play a more constructive role rather than just closing courses down – such as advice and encouragement to improve performance reinforced with gradually increasing penalties.

Second, the focus entirely on earnings is very different from the approach to other stages of education – some A Level courses are reported to show no earnings benefit, so should they be closed down too? And there are significant selection effects into different courses and institutions that might explain the labour market performance of different groups. I reported earlier the good news that higher education is the only stage of education where disadvantaged groups out-perform, probably as a result of just being able to get away to a new environment. But the bad news is that, for a given level of degree attainment, graduates from poorer backgrounds then under-perform in the labour market, probably because they don't have the social capital of more advantaged graduates. When the Office for Students tried to penalise a university for poor performance without allowing for the composition of its student body it was challenged in the courts and lost (the Bloomsbury judgement of 2020).²⁸

The challenge is to find a way to get universities to focus on helping their graduates boost their earnings by continuing to invest in them without encountering these problems and promoting social selection of the students likely to go on to higher-paid jobs. Instead, the aim should be for universities to work more on boosting the earnings of students, including after they have graduated, focussing on those with poorer prospects. If that could be done, then the Government could hope to see savings through reduced loan write-offs. More importantly, individuals and the wider economy would gain from sustained and effective investment in human capital. As two-fifths of the workforce are already graduates, this is potentially of real significance for the economy.²⁹

There is one way that could help achieve these outcomes. It would involve harnessing the link between the graduate and the university in the current system of fees and loans. At the moment, the Student Loans Company is barred from promoting such links. This is absurd. For example, I suggested as minister that when a graduate got to the end of their graduate loan repayments, they could get a friendly sign-off letter from their parent university thanking them for what they had done and inviting them to continue to make some modest contribution voluntarily as an alumnus. But that appears not to be possible in the current dispensation. Equally, if a graduate clearly has low earnings, the university might wish to help with more training or advice, but it gets no information from the Student Loans Company (SLC) on graduates with low earnings. Of course, there would have to be prior consent from the graduate to allow approaches from their university via the SLC, but at the moment there is not even a mechanism for seeking this. The SLC is a fantastic resource, with data on specific graduate earnings and the means of contacting both universities and graduates. The obstacles to these contacts need to be removed, provided, of course, graduates consent.

There is also a bolder option. This would involve universities taking a stake in their own graduate debt and enjoying some of the improved returns if their graduates' earning rise. Universities do not have balance sheets strong enough to take on all student debt, which now stands at about £1-2 billion per university. But that problem could be overcome. Even without them directly owning it, a university's specific graduate debt could be calculated with government financial incentives for them if their actions boost their graduates' earnings, thereby enabling a higher proportion of loans to be repaid. Or, to make the transaction more real, banks could be invited to partner with universities to buy the debt of a university's graduates off the Student Loans Company, just as governments have already sold stocks of graduate debt to raise cash and reduce the national debt. But selling a package of debt

²⁸ Courts and Tribunals Judiciary, [Bloomsbury Institute Limited -v- Office for Students](#), August 2020.

²⁹ Between 2011-2019, two-fifths (39 per cent) of UK workers aged 18-64 were graduates. R Costa et al, [Learning to Grow: How to situate a skills strategy in an economic strategy](#), Resolution Foundation, October 2023

from many different universities is just massaging the national accounts by selling off a future revenue stream.³⁰ But if instead it were linked to clear incentives to invest in graduates from the specific parent university, then it could become a useful tool to promote investment in human capital.

The sceptics may be worried about selection effects. It is easy to assume that the debt which would be sold in this way is owed by Oxbridge graduates with a RAB charge of close to zero. But there is no point to this and no gain for anyone. Actually, the model would operate the other way round. The debt for each university has a value which reflects the decisions it has already taken on who to admit and their subsequent performance in the labour market. So the debt of Oxford or Cambridge would be valued at close to face value and there would be little incentive for more investment in graduates. But consider instead a university with disadvantaged students doing badly in the labour market. Its debt might be sold at half face value. Then sustained investment in boosting their earnings could yield a big return – above all to the graduates themselves of course but also to the wider economy through extra investment in them from their parent university. And there would be no point in changing future recruitment patterns to graduates likely to do better in the jobs market as that would mean the cost of buying their debt in future went up.

This is not simply financial engineering. If it were successful then it could transform universities' approach to and engagement with their graduates. It could mean that, as well as keeping in touch, they offered refresher courses and continuing career advice. It might even be a way of promoting access to the new Lifelong Loan Entitlement. At the moment, it is hard to see take-up being substantial as mature students are much more wary of taking out loans than new young students at a big fork in the road in their lives. But if a graduate can see that there is a good viable way to use the money to boost their earnings through extra support from their parent university, then they may be more willing to take the option.

Promoting higher education as a services industry

Higher education is an unusual case study in globalisation. Medieval universities were extraordinarily cosmopolitan. They taught in Europe's shared language – Latin. Foreign students flocked to the original medieval foundations. Indeed, one of the earliest examples of the concept of nationality was the attempt by the University of Bologna, Europe's first university, to group their students by their different places of birth – "nationes". Major universities today are similarly open and global, although also anchored to a specific place which gives them their name and makes them more deeply and reliably rooted than many other global institutions.

UNESCO estimate there are now about 235 million higher education students in 2020, more than doubling from 100 million in the year 2000. Most of them study in their home country, but about 6 million study abroad, up three-fold since the year 2000. The absolute numbers of students are forecast to continue to rise, so even if the proportion studying abroad now remains stable, there will still be growth in the numbers of overseas students. And most forecasts expect even more growth than that.

One theme of the Economy 2030 Inquiry is identifying areas where Britain has a comparative advantage and ways in which it can be promoted so as to boost our national income. There is clear evidence of our comparative advantage in higher education. For example:

³⁰ Graduate debt is not regarded as sufficiently liquid to count as a financial asset held by Government. Selling it releases cash which does count as a financial asset and therefore lowers the national debt.

The English language is a key asset so our major competitors are the US, Canada and Australia. However other countries such as Germany are increasingly moving to teaching in English.

Our school exams – notably GCSEs and A Levels – are known and respected internationally and can be studied abroad. That in turn puts overseas school students on a route into English higher education.

The historic reputations of our universities and their position high in global league tables helps. But as well as individual universities the whole eco-system is well-respected.

The Masters Course is particularly popular with overseas students, as it is just one year long compared with two years in many other countries. However, as a result there can be difficulty in getting British Masters degrees recognised as professional qualifications in jurisdictions such as India or Spain. (Recognition of British qualifications for public service jobs in India would be a good point to press in the current trade negotiations.)

The scale of all this is significant. Universities UK estimate that overseas students boosted the British economy by £41.9 billion in 2021-22. This includes both fee income of £9.7 billion to universities but also wider spending in the UK.³¹ And there is a particular appetite for British higher education in the growing economies of Asia. Higher education is our second biggest export to China and of increasing significance in the case of India.

But our system has its weaknesses too, when seen as a business sector. Our universities are a cottage industry. There are global higher education chains taking more than a hundred thousand students each and operating in multiple locations. These are American, of course, but also Chinese, Japanese and Indian. None of them is British. We have Pearson as a commercial provider of education services, but we do not have a successful university chain. That would probably require access to commercial capital and management on a for-profit model. It should not displace our not-for-profit universities, but would supplement them. I promoted supply-side reform with a more liberal regime for new entrants hoping that they would become major new providers. That hasn't happened yet, though we helped the College of Law shift from ownership by the Law Society to become our first independent for-profit higher education institution and become the University of Law.

As well as full-blown global chains, there are also global alliances of universities in different continents. The idea is that some courses are developed in common, so that a student might be able to study for a year, say, in Canada, then in England or Australia, and get an honours degree recognised by the universities in different countries. But it is surprisingly hard for English universities to participate fully in such global alliances because it is not possible at the moment to use a fee loan to pay for study abroad. This is a significant non-tariff barrier to trade which protects English universities. It is very different from the model of, for example, Norway, which funds its students to study across the world. It would strengthen the hand of our trade negotiators if they could offer that British student loans would cover students studying in the other country. In return, we could ask for more recognition of British qualifications, or make it easier for our universities to set up and operate in their country.³²

31 J Cannings, G Conlon & M Halterback, [The benefits and costs of international higher education students to the UK economy](#), Report for the Higher Education Policy Institute, Universities UK International, and Kaplan International Pathways, May 2023.

32 S Bhalotia et al., [Trading Up. The role of post-Brexit trade approach in the UK's economic strategy](#), Resolution Foundation, June 2023.

Higher education and 'levelling up'

We saw earlier that there will be a surge in the number of young people up to 2030. Even with no increase in the participation rate, more people will be going to university. On top of that we can expect to see continued progress in students from more disadvantaged backgrounds rising towards the current participation rates of more prosperous students. If we have a social and economic problem of too many people going to university, it is to be found not in Hull or Blackpool, but in Surrey and Hertfordshire. And if schools are putting too many people on the university track, then the problem is most acute in independent schools where 70 per cent go on to higher education. But there is no sign of prosperous areas cutting back on higher education participation, even in places where it is already well over 50 per cent. Parental and student choice is driving rates of participation in these areas far higher than Tony Blair ever set as a national target.

The Government therefore needs to be planning for substantial growth in the number of young people going to university. This is not happening. The media narrative that too many students go to university is distracting attention from planning for growth. If we continue to ignore this powerful trend, then our existing universities will get bigger and bigger and pressure on student accommodation in the towns and cities with major universities will intensify. It would be a pity to miss the opportunity of growth in student numbers to create new universities, especially in the 'cold spots' which do not have a university at present. This is also an opportunity for innovation, as it is easier to create new universities with novel and distinct characters rather than change the model of existing ones.

There is important evidence that the presence of a university in an area boosts local growth. It attracts more highly qualified people, not least as staff. It can help recruitment and services for local companies. It brings in the spending power of students, including from abroad. Research finds that "a 10 per cent increase in the number of universities in a region is associated with about 0.4 per cent higher GDP per capita", and that "the economic benefits of university expansion are likely to exceed their costs."³³

One way that universities boost their area is the 'stickiness' of graduates: 38 per cent of UK-domiciled students stay in the same local enterprise partnership (LEP) as where they studied.³⁴ And being close to a university increases the chances of going: 34 per cent of students go to university in the LEP where they grew up.

This is not some striking new finding. Germany can claim to be the place where the modern research-intensive university began, and universities thrived particularly in Germany during the eighteenth and nineteenth century because of its fragmented small states. Universities were created because of competition between them for young people. The great cities of the world have concentrations of young people, and one reason is that they also have concentrations of universities – London has a strong claim to be the global centre of higher education. There is, however, an increasingly important countervailing pressure. Gaston Heimericks finds that universities in big high-cost cities under-perform on research – perhaps because high costs such as rents make recruitment difficult.³⁵

³³ A Valero & J Van Reenen, [The economic impact of universities: evidence from across the globe](#), CEP Discussion Paper No 1444, October 2017.

³⁴ G Azmat et al., [Universities and Industrial Strategy in the UK](#), CentrePiece article, November 2018.

³⁵ K Frenken, G Heimericks & J Horkman, [What drives university research performance? An analysis using the CWTS Leiden Ranking data](#), Journal of Informetrics Volume 11 Issue 3, August 2017.

So there could be advantages in setting up in lower-cost areas. But one worry could be that setting up a university in a poorer area is simply providing a means for its young people to get a degree and then move out, which could make the area even poorer in future. Obviously it would be wrong to try to keep young people in an area by making it harder for them to go to university, but is that concern warranted? The evidence is mixed. The Office for Students cites research by the Sutton Trust finding that “55.8 per cent of graduates study within 55 miles of the area where they grew up. And in 2015, 69 per cent took jobs in their home regions.”³⁶

That is a regional analysis. However, more recent work was able to undertake a more granular analysis, and concluded as follows:

“By age 27, graduates are 10 percentage points more likely to have moved away from the area where they grew up than otherwise similar non-graduates. Graduates who move tend to move to London and other affluent cities and experience large gains in earnings. This suggests that higher education enables people to move to areas that offer better labour market opportunities. However, patterns of graduate mobility exacerbate geographical inequalities in skills. Cities like London, Bristol and Brighton, which already produce large numbers of graduates, further gain graduates through migration. Conversely, there is brain drain from the North and coastal areas, which already produce low numbers of graduates. For example, only 19 per cent of those who grow up in Grimsby get degrees. But many graduates leave, so that by age 27, only 12 per cent of the same cohorts living in Grimsby have degrees. In contrast, 35 per cent of those who grow up in London get degrees. Even more graduates move to London, so that 44 per cent of the same cohorts living in London at age 27 are graduates.”³⁷

However, geographical inequalities are not static. Universities can themselves change the character of a town or city and set it on a different path. Lincoln is an excellent case study. In 1996, Mary Stuart created a new university campus in Lincoln on a derelict rail goods yard with £32 million not from central government but from local government and business leaders. That is now a university with 20,000 students which is estimated to contribute £50 million to the Lincoln economy and £125 million to the East Midlands. Siemens were about to pull out from the area, but instead stayed and invested. An Institute for Agri-Food Technology was set up to work with the local agriculture sector. A medical school was set up in partnership with the University of Nottingham. The University supports its own Academy Trust with five schools. Lincoln is an excellent example of levelling up in practice driven by the creation of a university and its exceptional leadership.

It is not the only example. Cornwall has benefited from the transformation of its higher education sector, helped by partnerships with the Universities of Exeter and Plymouth. Falmouth University, created in 2005 out of Falmouth School of Art, is now adding £100 million to the local economy and supporting 2,000 jobs. There is a similar story in Cumbria, where disparate colleges were brought together in the University in 2007. Worcester has been transformed by the development of its university. Hereford will be boosted with its innovative New Model Institute for Technology and Engineering.

³⁶ Office for Students, [English higher education 2019: The Office for Students annual review](#), December 2019.

³⁷ J Britton et al., [London calling? Higher education, geographical mobility and early-career earnings](#), Institute for Fiscal Studies, September 2021.

Tony Blair and Andrew Adonis have offered their analysis of the scale of the challenge: “46 towns in England with a population of over 80,000 which still in 2021 have no university of their own, including large and economically disadvantaged towns such as Hartlepool, Doncaster, Batley and Blackpool”.³⁸

One way forward is to focus on creating universities in local cold-spots. The Department for Education should launch a competition inviting applications to create a new university with a particular focus on places that do not currently have one. It need not be too prescriptive on how they should be created. There are several options:

FE colleges or the new Institutes of Technology might wish to expand and go for university status. It would be important not to lose the other levels of education they offer, but recent initiatives such as including an FE role in London South Bank University shows how this could be done.

An existing university might offer a partnership with a new provider to set up in a new location without starting from scratch, just as NMITE in Hereford, focussed on innovative programmes in engineering, is working in partnership with the University of Warwick which is initially validating its degrees.

Private providers might wish to come in especially with a substantial business backer – an excellent current example is the Dyson Institute of Engineering and Technology.

When they are up and running, these new universities should not be a drain on the public funding, as student fees and loans provide core funding. However, there are start-up capital costs which will need to be met. The fall in the birth rate since its peak in 2012 is reducing demand at earlier stages of education, while the earlier surge is reaching post-18 provision, so there is an argument for a rebalancing of the education budget. Nevertheless, a realist has to assume that the Department for Education remains focussed on earlier years and disinclined to devote any funding for higher education. In that case, it would be a very good use of the levelling up budget to create new higher education institutes in less affluent areas. Indeed, it might be possible to link the creation of new universities to the ambitious plans for new towns set out by Michael Gove in July 2023.³⁹ The university would be financed out of planning gain and itself add to the increase in value of the neighbourhood. The model of an integrated new urban development is Kings Cross, and that has the relocated University of the Arts at its heart. Putting a university at the centre of a new large-scale housing development might also help ensure the provision of a wider range of services to local people. Universities are notoriously reluctant to share their facilities with local residents – arguing that they are busy enough looking after students. But there are exceptions: the University of Worcester and the city share an excellent new library which neither would have been able to afford on their own. And with a new university in a new location there really could be an explicit civic role from the beginning.

Promoting R&D

Universities are also key drivers of R&D. One of the main reasons why global companies invest in the UK is the high quality of our university-based research. The Government has an ambitious agenda for promoting high tech innovation and growth, and universities are a key part of it. Attention tends to be focussed on the most prestigious universities which get to the top of the international league tables because of the excellence of their research as measured by citations in the most prestigious

³⁸ A Adonis & T Blair, [Education, Education, Education: Our Submission to the Times Commission](#), Tony Blair Institute for Global Change, June 2021.

³⁹ M Gove, [Long-term plan for housing: Secretary of State's speech](#), July 2023.

journals and the Nobel prizes and Fields medals won by their researchers. But the focus on the 'top' universities is one of the reasons why we are bad at applying research: it means that we do not recognise the distinct function of universities which aren't deemed to be 'top'. These are universities where the Economics department might not drive theoretical breakthroughs that get into the American journals, but where research instead applies up to date scholarship to monitor and study the local economy. The geology department helps mining companies work out where valuable minerals might be. The agriculture department helps monitor fish stocks. They may not be expert on advances in nuclear power, but they have been tracking for decades the health of people living near a nuclear power station and are used internationally for expert advice on the health risks of nuclear power. These are the practical ways in which universities which aren't 'top' contribute to the real economy. But the prestige of the Oxbridge model means that too many people dismiss such higher education institutions as bad universities, which don't even deserve the name. We are all poorer as a result.

There are local businesses which do not realise how useful universities in their area can be. One initiative to tackle this problem is the innovation voucher. These are local or regional schemes in which a local business describes a specific problem which is holding it back: perhaps it is working with a new alloy whose properties it does not fully understand, or there is a big market opportunity in a part of the world it does not know, or it needs test results for a new product. Innovate UK then uses its knowledge of local universities to identify one with the department with the expertise or the kit to tackle the issue and sends the problem on to it together with a voucher, of say £10,000, to pay for the use of the spectroscopy or the test equipment, together with the academic expert to tackle the problem. As well as helping with a specific issuer, the SME may actually set foot inside the university for the first time and find that the metallurgy department is actually quite helpful. So there could be a role for Government to promote applied R&D in universities with a national innovation voucher programme.

Conclusion, and summary of proposals

Human capital is central to achieving growth. The UK needs to break out of a 'too many university degrees' and instead get on with the serious work of how best to reform higher education, given the nature of our wider economic strategy and routes to prosperity and the need to develop what is already a successful industry. The surge in the number of young people over the rest of this decade can give a real boost to our economy. It means more people getting more higher education, at Level 4 or 5 or with a full honours degree. It also means stronger higher education institutions spread across the country. To achieve those twin objectives higher education must be properly funded – notably by the income-related contributions from graduates which have been part of the system for twenty years. It also means bold new initiatives so that universities stay in touch with their graduates and innovative new universities are created. It is not enough to pay lip-service to the excellence of our universities. They should be supported and promoted so that they can fully play their role in boosting our economy and strengthening our society.

To help achieve this, we have suggested the following reforms.

1. Funding pots that support both higher education Institutions and further education Colleges to work together to support access to Level 4 and 5 should be created. There also needs to be a demand strategy that significantly raises employer and learner awareness of the range and

value of Level 4 and 5 qualifications. IfATE should fund the development of new Level 4 and 5 technical qualifications in areas where skills needs have been identified in the new Local Skills Improvement Plan (LSIP). Some form of means-tested assistance for Level 4 and 5 students would be desirable if resources permitted.

2. There should be an open, evidence-based debate about the calibration of the graduate repayment scheme so the system is adjustable and reflects changing political judgements. That could be achieved through a quinquennial review of fees and loan terms so that the system could be modified without tearing it all up and starting again.
3. Degree apprenticeships should be funded out of the standard fees and loans model. This would release resources from the levy to focus on younger apprentices and courses at Levels 2 and 3.
4. The Student Loan Company is a fantastic resource with data on graduate earnings and means of contacting both universities and graduates. The obstacles to these contacts need to be removed provided graduates consent for contact to be made.
5. Banks could be invited to partner with universities to buy the debt of a university's graduates off the Student Loans Company.
6. Our trade negotiators should be able to offer that student loans would cover British students studying in a foreign country. In return we could ask for more recognition of British qualifications or making it easier for our universities to set up and operate in the country.
7. The DfE could launch a competition inviting applications to create a new university with a particular focus on places that do not currently have one.
8. The Government should promote applied R&D in universities with a national innovation voucher programme.