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Are universities worth it?

A review of the evidence
and policy options

David Willetts

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Author

David Willetts

David Willetts is a Visiting Professor at King's College London. He is President of the Resolution Foundation and a member of the House of Lords. His book *A University Education* is published by Oxford University Press. He was Minister for Universities and Science 2010-2014.

davidwilletts.co.uk

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1. The edu-sceptics: more means worse

Kingsley Amis started it. Just about every contemporary meme of standards declining as universities grow can be found in his essay of 1960 in *Encounter*:

'The trouble is not just illiteracy, even understanding this as including unsteady grasp of the fundamentals of a subject as well as unsteadiness with hard words like *goes* and *its*. But for the moment I want to drum the fact of the illiteracy into those who are playing what I have heard called the university numbers racket, those quantitative thinkers who believe that Britain is *falling behind* America and Russia by not producing as many university graduates per head, and that she must catch up by building *more* colleges which will turn out *more* graduates and so give us *more* technologists (especially them) and *more* school-teachers ... MORE will mean WORSE. ... I am quite sure that a university admissions policy demanding even less than it now demands – for that is what a larger intake means – will wreck academic standards beyond repair.'¹

Before that, his great campus novel, *Lucky Jim*, published in 1954 had warned of the dangers of financial incentives to take on more students:

'But my God, go to most places and try and get someone turfed out merely because he's too stupid to pass his exams – it'd be easier to sack a prof. That's the trouble with having so many people here on Education Authority grants. ... You can see the Authorities' point in a way. "We pay for John Smith to enter College here and now you tell us, after seven years, that he'll never get a degree. You're wasting our money." If we institute an entrance exam to keep out the ones who can't read or write, the entry goes down by half, and half of us lose our jobs.'²

He drew on his experiences working as an academic for 14 years. He has a go at useless research as well:

‘... this strangely neglected topic ... *The Economic Influence of the Developments in English Shipbuilding Techniques, 1450 to 1485* ... It was a perfect title in that it crystallised the article’s niggling mindlessness, its funereal parade of yawn-enforcing facts, the pseudo-light it threw upon non-problems ...’³

These are attacks in the 1950s when student numbers were tiny and universities were being opened up to more grammar school boys before the Robbins expansion.⁴ There has always been scepticism about more people going to university – Thomas Hobbes attributed the Civil War to too many people going to university. In its modern form it thrives in the campus novel where university academics write more critically about higher education than most outsiders would dare. Malcolm Bradbury’s *History Man* went for social sciences. Howard Jacobson’s *Coming from Behind*, published in 1983 (and perhaps drawing on his six years at Wolverhampton Polytechnic) describes Wrotesley Polytechnic where students ‘over whom despairing parents and learned child psychiatrists and indefatigable remedial teachers had shaken their heads were now B.A.’⁵ *Private Eye* mocked the promotion of Neasden Polytechnic to the University of the North Circular.

Margaret Hodge, in 2003 as universities minister in the Blair government, attacked ‘Mickey Mouse courses ... where the content is perhaps not as rigorous as one would expect and where the degree itself may not have huge relevance in the labour market’.⁶ The media narrative has been consistently sceptical – ‘Generation why... bother going to uni?’⁷ is a classic *Sunday Times* story from any year. That headline was from 2009. All this culminated in Rishi Sunak claiming in his Party Conference speech of 2023: ‘The false dream of 50 per cent of children going to university ... was one of the great mistakes of the last 30 years.’⁸

Despite this sustained scepticism the number of young people going to university carries on going up. The higher education participation rate in England of those aged 30 and under reached 52.4 per cent as of 2019/20, up from 46 per cent back in 2010/11 before fees went up to £9,000. The trend is clear despite being affected by the unwinding of the temporary surge during Covid.

Table 1 Higher education entrants and participation rate for England. Percentage of people aged 30 and under who have entered higher education

Year	Entrants (thousands, rounded to nearest thousand)	Participation rate
2010/11	322	46%
2013/14	314	46.5%
2016/17	334	49.9%
2019/20	337	52.4%

Source: Department for Education.⁹

UCAS are expecting a million university applications by 2030 compared with about 750,000 now.¹⁰ (The 337,000 refers to English applicants to a first higher education course only. The figure of one million would include all higher education applications regardless of course level and nationality and based on significant projected growth.) But an increase in absolute numbers could obscure a more modest increase in the participation rate for the youngest students because of the surge in the birth rate in the first decade of this century. After 2030 the demographic tide turns and universities may face new challenges – it would be possible for absolute numbers of English students to fall even if participation rates go up. 68 per cent of young people now say they plan to go to university.¹¹ Continuing growth is not some eccentric British experiment: participation in tertiary education goes up just about every year in just about every OECD country. It is a deep-seated economic and cultural trend.

This appetite for higher education continues despite growing doubts about the value of higher education – three in 10 of the wider public now say going to university is not worth the time and money, compared with two in 10 just in 2018. However, graduates themselves rate their actual experience very differently, with over eight in 10 saying overall it was worthwhile, with graduates’ views on how ‘worth it’ university was remaining stable since 2020. So the people actually experiencing higher education – and as graduates paying for it – don’t share these doubts. And three in 10 adults who did not go to university wish they had, rising to four in 10 among 18-to-24-year-olds.¹²

The wider media narrative of scepticism about the value of going to university may be leading some young people not to go who subsequently come to regret it. It may also be a key reason why successive governments are not willing to put public spending into higher education. The growing scepticism about higher education matters.

Higher education is not even a priority for successive education secretaries, who almost always prioritise early years or apprenticeships – stages of education which do not encounter such criticism. As there is little political support for public funding for universities, there is a need for an alternative way of financing them – hence university fees. But even these had not been increased for seven years before the new government’s decision to increase them in line with inflation in 2025. The edu-sceptic narrative has licensed a sustained reduction in the real resource going into higher education. This is reducing the quality of higher education with more crowded classrooms and ill-equipped labs. Higher education is now the main route to adulthood for the majority of young people, key to their prospects and indeed our country’s. So we need to engage with the edu-sceptics, confronting any uncomfortable evidence on economic returns to higher education.

2. The economics of human capital

Just as the campus novel narrative originated in the university itself, so did the rigorous study of the economics of education. At the same time as the campus novel was painting one picture of the university, Gary Becker, the Nobel Prize winning Chicago economist, was transforming the study of the economics of human capital. He showed how education could be evaluated by its returns to investment in human capital. This is far from the only significance of education, but it is particularly relevant when assessing how universities should be funded. The growth of the economics of education has led to a surge of evidence on returns to higher education. Here is the basic evidence for pay and employment, first in nominal and then in real terms.

Table 2 Wages and employment of young graduates and non-graduates (21 to 30 age group)

Age group	Median wages (nominal)		Median wages (real 2013)	Employment rate	
	2013	2023	2023	2013	2023
Postgrads	£27,500	£35,000	£26,500	85.7%	90.8%
Grads	£24,000	£31,500	£24,000	85.1%	87.4%
Non-grads	£18,000	£26,500	£20,000	68.3%	72.2%

Source: Department for Education, Graduate labour market statistics.¹⁵

Graduates still earn a lot more than non-graduates, but the real earnings of younger graduates have not increased over the past decade, while the earnings for non-graduates have increased by £2,000. This means the premium for young graduates over non-graduates fell from £6,000 to £4,000. We may be picking up here the first signs of a fall in the

graduate premium or it might be part of the wider phenomenon of real wages performing poorly since the financial crisis. We can see what is going on in a bit more detail using data comparing incomes for different periods after graduation in the table below, drawing from a different dataset, Longitudinal Educational Outcomes (LEO).

Table 3 Median earnings by years after graduating (YAG), snapshots in 2015–16 and 2021–22

	2015–16	2021–22 in real (2015) terms	% real terms change 2015–16 to 2021–22
1 YAG	£18,700	£19,500	4%
3 YAG	£22,700	£22,700	0%
5 YAG	£25,600	£25,800	1%
10 YAG	£30,400	£29,600	-3%

Source: Department for Education, Longitudinal Education Outcomes, Graduate and Postgraduate Outcomes.¹⁴

This evidence suggests median graduate salaries one year after graduation increased by four per cent (in real terms) in the six years between 2015–16 and 2021–22. But median graduate salaries 10 years after graduation *decreased* three per cent in real terms compared with six years earlier. This data suggests a graduate pay slowdown which is not an effect of lower starting salaries, but of recent graduates experiencing slower pay rises towards the end of their first 10 years of work than earlier graduates.

The rewards for higher education are still high. The table above is a snapshot at a specific stage of education. The LEO data suggests that between the ages of 23 and 31 average earnings grow by 72 per cent for graduates, more than double the 31 per cent for non-graduates with at least two A-levels. For those who were previously on free school meals, average graduate earnings growth is 75 per cent, while for non-graduates it is 26 per cent. By the age of 31, graduates are earning 37 per cent more than non-graduates with at least two A-levels – £30,750 and £22,500, respectively.¹⁵ Even if real wages have not risen much at

specific ages for successive cohorts, higher education remains a powerful boost to earnings for individuals as they advance through their careers.

There is also significantly higher employment among graduates. 15 years after school-leaving age, just two per cent of graduates are on out-of-work benefits, compared with 11 per cent of non-graduates. Even those non-graduates with Level 3 qualifications (A-levels or equivalent) are more than twice as likely as graduates to be on benefits.

Table 4 Percentage on out-of-work benefits 15 years after school

Education level	% on benefits 15 years after school
Graduates	2%
All non-graduates	11%
Non-graduates with Level 3 qualifications	5%

Source: Department for Education, Longitudinal Education Outcomes: post-16 education and labour market activities and outcomes.¹⁶

This snapshot at 15 years after schooling understates the benefits of university, because the percentage of graduates on out-of-work benefits never exceeds three per cent in that 15-year period, while for non-graduates the peak is 17 per cent before falling to 11 per cent.

Simply comparing the earnings of graduates and non-graduates in paid work understates the graduates' economic advantage by excluding adults who are not working, which is a much greater risk for non-graduates. The government has a target of getting economic activity among adults up to 80 per cent. Getting more young people into higher education looks to be a very good route to achieving it – as, indeed, would getting more people to progress from GCSEs to Level 3.

These economic returns are not just captured by graduates. There are also wider economic benefits. Universities boost economic growth in an area. Anna Valero and John Van Reenen of the LSE are now based at the Treasury as, respectively, a member and the chair of the Council of

Economic Advisers. Their paper, *The Economic Impact of Universities: Evidence from Across the Globe*, finds that a 10 per cent increase in the number of universities is associated with 0.4 per cent higher GDP per capita in a region.¹⁷ Regions with more graduates tend to be more productive. London (68 per cent), the South-East (56 per cent) and the East (52 per cent) have the highest proportion of graduates in the workforce. They also have the highest output per hour, as shown in the chart below.

Figure 1 Output per hour worked by workforce graduate participation, by England region



Source: Adapted from Universities UK.¹⁸

Areas with high concentrations of graduates perform better economically, which in turn benefits non-graduates in an area too. Enrico Moretti, the leading American labour market economist, finds strong evidence of complementarity: ‘The earnings of a worker with a high school education rise about seven per cent as the share of college graduates in his city increases by 10 per cent.’¹⁹

The lower the skills, the greater the gains from other people's education. One of Britain's challenges is to boost the size and agglomeration effects of major cities so that there is a boost to earnings of graduates and non-graduates alike. The more graduates can work productively with many other graduates, the greater the productivity gains for everyone. So the Resolution Foundation has shown that in Birmingham, for example, productivity would receive a major boost if there were investment in transport to significantly increase the number of graduates in particular who can get to the city centre.²⁰

When economists try to understand how Britain has performed in good times and bad, they find similar evidence of the boost to productivity and growth from more people going to university. Jonathan Haskel and colleagues found 15 per cent of growth between 2000 and 2007 attributable to increases in employed university graduates.²¹ A more recent paper by London Economics for the Department of Education, published only in 2023, addresses the question of why British productivity growth has declined since the financial crash. They find that the only factor which has remained positive is increases in the number of graduates changing the composition of the workforce: 'In the post-2008 period the labour input was the only input factor making a positive and consistent contribution to growth in GVA [Gross Value Added] per hour growth'.²²

3. Non-economic returns to higher education

The political debate on financing higher education has led to a focus on financial returns. This has distracted attention away from non-economic benefits, which are also substantial. And as with the economic benefits, they accrue both to individuals and to wider society.

Graduates are 70 to 80 per cent more likely to report excellent health. *The Lancet* has recently published an impressive review of the international evidence. Every extra year of education yields a two per cent reduction in mortality risk across the whole population, and a three per cent reduction for adults under 49. There is no such effect from social class or gender – it is education which is the driver.²³ If you were a doctor, you would prescribe more education. An estimate by one of the leading experts was that, across a range of Western countries, the savings from the better health of graduates and their children is worth as much as the boost to earnings.²⁴

Mental health problems are sadly growing among young people. Students are not immune. But our work at the Resolution Foundation, shows that graduates are more likely to carry on working even while suffering mental ill-health.²⁵

There are other wider social benefits too. Graduate males are 3.5 times more likely to be a member of a voluntary association, 30 to 40 per cent more likely to hold positive attitudes to race and gender equality, and 50 per cent more likely to vote.²⁶

Advocates of early years have convinced people of the wider benefits of early intervention, yet there has been no such success persuading people of the wider benefits of higher education. This is ironic as another strand of research shows substantial gains to children as more parents are graduates. One study used the natural experiment of the raising of the school leaving age from 15 to 16 to show that the children of those who received this extra year of education also benefitted, showing improved educational outcomes relative to similar children whose parents missed out on this extra year – evidence incidentally that education has a real effect on people; it is not just about selection effects and signalling.²⁷

One American study suggests the evidence shows that more years of education ‘leads individuals to make better decisions about health, marriage, and parenting. It also improves patience, making individuals more goal-oriented and less likely to engage in risky behavior.’²⁸ Self-reported happiness is higher the more years of education, even after allowing for income effects.²⁹

Putting all this together, the wider non-market benefits of higher education probably exceed the earnings benefits. There are dozens of papers subject to rigorous peer-review over many years showing all these sorts of gains in the UK, the US and more widely. It is a mistake to regard university expansion as a historic error when there is such a strong body of rigorous evidence showing it has served as a driver of productivity, prosperity, and wellbeing. But...

...Have we now reached peak graduate? Is university still worth it? What about the recent work by the Institute for Fiscal Studies (IFS) appearing to show poor returns for some university courses? Are we due for a rethink about the benefits of higher education? Has the world moved on?

4. Peak graduate?

The experts have been waiting for a long time for graduate financial returns to fall. Indeed there was some surprise that the growth in graduates did not lead to a fall in the graduate premium sooner. In a way that is the point – if there is a reliable way to boost your earnings, more people should go for it until the benefit is down to zero for the marginal student, which would inevitably bring down average returns. Parkrun is supposed to celebrate when the average time of their participants increases (gets slower), as it is evidence new runners have joined. Is it too much to hope we could ever see increased higher education participation the same way?

Richard Blundell, David Green and Wenchao Jin produced an important paper in 2016 addressing the key question, *The UK Wage Premium Puzzle: How did a Large Increase in University Graduates Leave the Education Premium Unchanged?*³⁰ They argued that the increase in supply of graduates made organisational change possible, in particular flatter, more decentralised management linked to use of new information technologies which boosted performance. But that would be a one-off effect, and after that, increased supply should cause a fall in premium. They returned to the subject in 2022 and again found ‘the time trend in the college wage premium has been extraordinarily flat’.³¹ Their analysis is for 1993–2015, ‘though with a small decline near the end of the period, and especially in the private sector.’³²

It is not that there happened by happy accident to have been an exogenous increase in demand for graduates because of technological change just as supply was going up. Nor is it wholly endogenous – the increase in supply creating technological change altering the structure of the British economy. That may be true for the US, but not for us as a technological follower. The sophisticated mid-point is that firms choose how to organise themselves in the light of changes in the supply of labour and new technological options developed elsewhere. This account is consistent with interesting evidence from Eve Caroli and John van Reenen that areas of the UK that saw the greatest increases in education levels were also those in which workers report having more control over their own work.³³

There has been a similar debate in America. Daron Acemoglu, a winner of the 2024 Nobel Prize for Economics, summarised the evidence as follows: ‘[A]n increase in the supply of skills reduces the skill premium in the short run, but then it induces skill-based technical change and increases the skill premium, possibly even above its initial value.’³⁴ So for decades we saw an increase in the number of graduates with no fall in the premium: increased supply seemed to be matched with increased demand. It was these kinds of complementary forces at work. But there is no guarantee that they are continuing, and we could instead be facing a more conventional increase in supply lowering the financial returns to higher education for the marginal student. That is what appears to be happening in Scandinavia, though it has not led them to our kind of worries about university participation, perhaps because they attach more weight to the wider benefits of higher education.

5. Why non-graduates are doing better – the minimum wage

Meanwhile, there have also been significant changes to non-graduate earnings in the UK. Tej Nathwani of the Higher Education Statistics Agency (HESA) finds a fall in the graduate premium of 10 percentage points across two decades. He compares a cohort study for people born in 1970 and another survey in 1989–90. He shows falls in the graduate premium from 18 to 12 percentage points for males and from 24 to 19 percentage points for females. All these findings are for earnings of those aged 25 to 26, so quite early in people's working lives, whereas we shall see many of the earnings benefits of higher education come from being on a different long-term trajectory.³⁵

A key part of what is happening to the graduate premium could be what is happening at the bottom of the earnings scale. It is a boost for non-graduates more than a fall in the real value of graduates. Indeed Richard Blundell's earlier work referred to this issue in passing, identifying 'relative increases in lower end wages' as a complicating factor.³⁶ The past decade has seen ambitious increases in the minimum wage, which is up from 50.9 per cent of average earnings in 2013 to 63.2 per cent a decade later, and now expected to reach 66.6 per cent in April 2025.

Nye Cominetti at the Resolution Foundation has looked into the data in detail. The pay of non-graduates clusters around the minimum wage. 23 per cent of non-graduates had hourly pay at or less than the minimum wage plus £1 (versus six per cent of graduates). Only seven per cent of workers earn the minimum wage, but because employers try to preserve some pay differences between jobs bunched together at quite

low earnings, when the minimum wage rises, so does the pay for about a third of workers, most of them non-graduates. Boosting earnings of the less well paid, who tend to be non-graduates, and bringing it closer to the median, is the point of the minimum wage but it has the further effect of reducing the graduate premium by raising the pay of a large group of preponderantly non-graduates.

One recent study showed the graduate premium falling from 40 per cent to 30 per cent outside London, between 1997 and 2019.³⁷ Over roughly the same period (1999 to 2019), the minimum wage rose 128 per cent, and median hourly pay by 73 per cent. So there is a clear correlation with the rise in the real value of the minimum wage. Choosing not to go to higher education as the graduate premium appears to be falling is partly a bet on sustained increases in the minimum wage. The Labour government is now aiming to boost the minimum wage for young people to match the adult level. The higher the wages they can earn now, the greater the temptation to skip university, for young men in particular when they are already less likely to go than women – though many beneficiaries of the minimum wage have educational attainments so modest that they are unlikely to be candidates for higher education.

The HESA analysts have dug further to look behind average graduate earnings to see the occupations most affected. They find another factor too:

‘Graduates working in professional occupations have seen the biggest decreases in real earnings, while graduates working in lower skilled occupations have continued to see their real earnings increase. It seems likely that this discrepancy is driven in part by the large numbers of graduates in professional roles who are employed in the public sector, where real terms pay has struggled to keep up with inflation.’³⁸

In particular, lower pay for recent graduates in health care (nursing) and education (teaching) appears to be the key driver. These are also sectors with quite a few low paid workers who gain from the minimum wage. All this suggests the fall in the graduate premium for young graduates is the result of government policies such as boosting the minimum wage and holding down pay for public sector professions.

However, explaining the apparent shrinking of the overall graduate premium because of the boost to non-graduate earnings or public sector pay policies is not the end of the story. We can now look at a dataset which has opened up new angles for research on the links between education and earnings.

6. LEO data: the counterfactual and heterogeneity of earnings

A key driver of a recent change to a more pessimistic view of the graduate premium has been evidence from a new dataset on graduate earnings. As minister, I personally fought for HMRC data on earnings to be made available to researchers. That could be linked to data on educational accomplishments to create an important new dataset of Longitudinal Education Outcomes – LEO data. The publication of an IFS paper based on this dataset in 2016 was an important moment in the development of the economics of education in the UK.³⁹ LEO data has been used by the IFS in particular to get a much more granular understanding of the economic gains for different groups, courses and institutions compared with not going to university.

Overall, the IFS research actually shows significant average gains from higher education and is consistent with the story so far. They show graduates earning very substantially more than non-graduates. LEO suggests the difference in lifetime earnings for graduates over non-graduates, undiscounted after accounting for taxes and student loan repayments, is a massive £610,000 for men and £410,000 for women.⁴⁰

That is however lost from sight because of two special features of the IFS analysis. First, they try to assess not just the headline figures for graduate earnings but compare them with the counterfactual of someone with the same attributes who does not go to university. Secondly, they use their large dataset to investigate gains for specific subjects at individual universities and indeed gains linked to other specific personal characteristics such as gender or ethnicity. This shows that behind the averages returns look to be very diverse – or, as economists say, heterogeneous. We will look at these important two issues in turn.

First, some health warnings. The findings are novel and interesting so Whitehall and the media rush to place very great significance on them. But there are limits on the weight of interpretation the LEO data can bear. The LEO data does not, for example, cover anything like a full career yet. The dataset only covers those born from the mid-1980s, with the real detail for people graduating from about 2008. This is the period since the financial crash when our work at the Resolution Foundation has shown pay overall performing poorly. Is this what the future will be like? There are no robust findings yet for people older than their mid-thirties – instead the IFS tries heroically to forecast future earnings. These forecasts matter as workers further advanced in their careers show the greatest gains from tertiary education. OECD analysis shows the earnings advantage of tertiary education doubles from 35 per cent amongst 25-to-34 year-olds to 70 per cent among 55-to-64 year-olds.⁴¹ This is incidentally also a problem facing estimates of the RAB (Research Accounting and Budgeting) charge, the loan write-offs. It is a forecast of what will happen to earnings over 30 or 40 years when the data so far is for a period when pay in general has performed badly. Estimates of lifetime earnings for graduates since 2008 are based on a period of exceptionally low earnings overall: there is no such lifetime LEO data for previous generations of graduates on which to base the forecast. These and other limitations mean that interesting research findings from LEO cannot necessarily bear the weight of being an explicit instrument of policy. I saw them as a useful tool to enable us to calculate probable loan write-offs for specific groups of students (which does not depend on counterfactuals) and not as an overall measure of the economic value of individual courses. I also wanted the data to be out there and available for prospective students, but that then leaves it open to the university to explain its results and what it might be doing to improve them. And all the data we are considering here is solely for direct earnings and ignores all the wider benefits of going to university.

Nevertheless, the headline LEO findings are clear: graduates on average earn a lot more than non-graduates, even if not quite as much more as a few years ago. But the results look much less impressive when the IFS add the counterfactual comparison. What if someone with great

A-levels had not gone to university? Couldn't they have earned a lot of money anyway if they had just gone straight into work aged 18? The IFS suggests they could. But this is where it gets tricky. Not many people with good A-levels don't go to university. So the evidence for what would happen in the alternative scenario is limited, though the IFS is right that the prior attainment of students matters for their future earnings. Other studies tend to be based on real natural experiments where there are two real groups to compare – a lottery allocating limited university places to some people out of a homogenous group, or American students who went to university to avoid the draft and others like them who didn't go but didn't get drafted, or contrasting those who just scraped into college with those who just missed out.⁴² These studies all tend to show very substantial gains for the people who went to university compared with the people just like them who didn't. It is also possible to look at marginal students who just get in compared with peers very similar to them who don't. A recent study along these lines in Texas shows substantial gains for the marginal student:

'In the first four years after high school, marginally admitted students earn less than their peers whose scores were just below the acceptance line, in large part because they are more likely to be enrolled full time in higher education. They do not see an earnings premium in years 5 to 7 after finishing high school, but starting in the eighth year, their average earnings are 5 to 10 percent greater than those of their barely rejected peers. Taxpayers, who subsidize the majority of this additional education, eventually reap a return as well: after 25 years, the increased tax revenue from marginal students' higher earnings surpasses the costs of attending college.'⁴³

This brings out a key feature of such counterfactuals: the comparison is with someone who starts work earlier rather than staying on in education. It is a race between the hare and the tortoise in which the counterfactual non-graduate hare has the advantage of several years' earnings before the graduate has got started. It takes time for graduates to catch up and overtake. That is why looking at earnings early on is so misleading. Graduates may earn more later but how do we value those

higher earnings out in the future? Because of these different patterns of lifetime earnings, a discount rate setting the relative value of the early earnings versus higher earnings later has a big impact on the results. The edu-sceptics can use a high discount rate so that the long-term returns from investing in higher education struggle to offset the extra earnings a non-graduate has accumulated by their mid-20s. It is the same old story of the British economy and the value we set on long-term investment compared with short-term returns.

The crudest measure is the gap between the amount a graduate will earn net of tax and loan repayments compared with non-graduates over their lifetimes in today's prices. The gap between undiscounted lifetime male graduate earnings of £1.8m and non-graduates of £1.2m does rather put some of the agonising about the graduate premium into perspective – and also shows why it is fair to expect graduates usually to pay back for their higher education. It gives an enormous gain of £610,000 for men and £410,000 for women.

However, the IFS authors rightly warn that a 'dramatic' impact comes from discounting, especially if you use the 3.5 per cent real rate set in the government's Green Book model for appraising public investment over 30 years. It massively reduces the value today of lifetime earnings. The IFS explain 'HE men earn around £1.8m over their working lives on average, while with Green Book discounting the figure is around £750k'. (For non-graduates it is £1.2m discounted to £550,000.)⁴⁴ Government Green Book discounting shrinks the absolute figures so much it also reduces the apparent returns to higher education as well. But such aggressive discounting of earnings that we are going to need over a lifetime down to a much lower one-off sum now can be very misleading. The Treasury set a much lower discount for particularly significant long-term investment affecting the environment and health. They also use a 0.7 per cent real rate for setting the value of the student loan book. As this is how they value future payments by graduates it is also the best one to use for valuing the future earnings of graduates. Then there are the large IFS deductions trying to allow for the counterfactual. That involves some heroic assumptions about what happens to people with good A-levels who

do not go to university though there may be other differences between them and the university-goers even if their prior A-level attainment is the same.

After you've thrown everything at the raw figures, deducting all tax and loan repayments, discounting future earnings at a high rate so earnings in later life count for little, and then done a counterfactual deduction too, the IFS interpretation of LEO data still shows a substantial gain from going to university of on average £130,000 for men and £100,000 for women. It is much smaller than the unadjusted estimate but still a tidy sum. The most suitable figures after paying tax and repayment, and with the counterfactual and the more reasonable 0.7 per cent real discount rate, are a net gain of £280,000 for men and £190,000 for women. Those are the figures which best summarise the position. Higher education is just about the best investment available for the majority of British citizens. Here is a table showing all the different measures.

Table 5 Estimated lifetime earnings gains of graduates relative to non-graduates, all net of tax and loan repayments

Measure	Lifetime gains over non-graduates (in thousands, to nearest £10,000)	
	Male	Female
Extra earnings non-discounted	610	410
Extra earnings discounted at 0.7%	490	330
Discounted at Green Book rate	230	170
Counterfactual, non-discounted	350	230
Counterfactual, discounted at 0.7%	280	190
Counterfactual, discounted at Green Book rate	130	100

Source: Institute for Fiscal Studies. (2020). *The impact of undergraduate degrees on lifetime earnings.*⁴⁵

The other part of the IFS analysis which has caused a stir is just how diverse the economic returns are. Looking behind the average creates a much more complex picture. Heterogeneity comes in many forms from course of study to gender to ethnic background of the students.

There are very different returns depending on what you study. The brutal message above all is that jobs in the creative arts do not yield high earnings. Graduates from the creative arts – a broad category including, for example, music, art, drama and design studies – receive the lowest earnings benefits from their degree (followed by social care). It looks as if Noel Coward was right – ‘do not put your daughter on the stage, Mrs Worthington’ – though he was wrong about gender as women are much more likely to make a positive return from these courses than men. The IFS conclude that although nearly half of women who study creative arts get a positive financial return:

“We expect almost no men who studied creative arts and few who studied social care to achieve positive returns from their degrees in discounted present value terms; even for agriculture, physical sciences and English, we project the share of students with positive returns to be no more than half.”⁴⁶

These results do however use the high Green Book discount rate. Even so, it is right that this salutary data is at last out in the open. It should be available for every careers adviser and on the UCAS web-site.

If universities simply closed every course in the creative arts, at least for men, then their LEO results would improve significantly. This has sparked a lively debate in the creative industries. They accept they need to do better on issues such as pay. But they also point out important weaknesses in the data – as the self-employed are excluded from some of the comparisons, for example many performers who do well are not counted.⁴⁷ And as successive governments say they value and want to boost the creative industries, it would seem odd to penalise universities for their contribution to educating them. Moreover the results are much worse for men than for women. Should courses where around

half of women get positive returns be closed because the share of men benefiting is lower?

The information about low earnings does not appear to put many students off these courses, nor lead universities to close them. I wanted the data to inform student decisions and am frustrated that more has not been done to make it more accessible to prospective students. But even among courses with the lowest earnings gains, there may be a range of reasons for people choosing to pursue them. Social care, English and creative arts all look like poor choices when focused on average earnings outcomes, but they have important social and/or cultural value, and some people will do well. Some people gain, even with very high discount rates, from some of these courses. These forecasts are for average returns, and some may think 'I'm going to have a go at acting: it might not bring me high pay but even if it doesn't at least I've given it a try and it may be what I want to do even if I'm not earning much'. Deciding to do something very different is hard. The counterfactual is odd – it is supposed to be someone just like you but who doesn't want to do what you want to do. Maybe going to university is not just a transaction; it is an expression of what kind of person you think you are – and so is an apprenticeship, incidentally. The communitarian critique of social contract theory and of supposedly frictionless rational choices is that it is asking you to shed all these ties which constitute a personal identity. Which side of this divide is the decision to go to university? And what about similar decisions at other stages of education much more dependent on taxpayer funding – choosing an English A-level for example? These are deep waters.

The kind of person you are both affects your absolute gains from higher education and also what your own counterfactual might have been. This is not just a matter of the course you choose to study but your ethnicity as well. Indeed there are many other features of individuals and their universities which make using counterfactuals to assess one university compared with another tricky. Imagine taking tennis rankings, then trying to adjust for prior ability and then ranking not players but coaches. That is even harder than trying to assess the overall earnings

of tennis players compared with people like them who don't go on the professional circuit. Using ethnicity data from the National Pupil Database, the IFS found, in a vivid example of the issues, that even though graduates of Pakistani ethnicity⁴⁸ have low absolute earnings, their benefits from university are:

'especially large ... with an estimated boost to average earnings of more than a third by age 30. Adding up predicted gains over the whole life cycle and taking into account taxes and student loans, we found that doing a degree is worth around £200,000 for Pakistani students – around twice the average return for all students ...

'This is not because Pakistani graduates have especially high earnings. In fact, the opposite is true: Pakistani graduates have the lowest graduate earnings of all ethnic groups, with typical earnings at age 30 of £23,000 for men and £19,000 for women.

'Instead the reason is that – based on comparing similar people who did and didn't go to university – Pakistani graduates would have earned much less had they not gone to university. Typical earnings at age 30 of Pakistani men and women who did not go to university are only £13,000 for men and £11,000 for women.

'An important factor explaining the large earnings gains for Pakistani graduates (compared to not attending university) appears to be that Pakistani students are more likely than White British students to choose subjects with good job prospects at university, such as business, law, or pharmacology. They are also less likely to choose degrees with low or negative financial returns, such as creative arts.'⁴⁹

This is in some ways an example of low absolute returns, and so supports the edu-sceptic case. But it also shows the importance of the counterfactual and what the drivers are of heterogeneous returns, as the IFS make clear in the account above of their analysis. We've got a group with poor labour market outcomes if they don't go to university, with a tendency to do courses at university with high returns, but who then gain rather less from them than other graduates. So if we were envisaging some new power for government, going through every university course and trying to decide whether to close it down based on its graduate returns, how does one assess a university course in an area with lots of British students of Pakistani heritage? Lower absolute returns than similar courses with fewer such students? Black mark – must be a poorly performing university. But maybe the problem is bad attitudes of employers to people of Pakistani heritage – surely not the university's fault. And the course looks better on the counterfactual test. Maybe it's a great boost to social mobility and it gets a gold star instead. A different course which gets higher absolute returns may do less well on the counterfactual. (Imagine one for White public-school boys who if they didn't go to university could get an excellent job in the high-end services sector with their high social capital. Is that course better or worse?) Any attempt to assess higher education course by course using the counterfactual will need to go through all this and more. Any attempt to act on such an assessment would probably end up in the courts. Is this a workable and viable future for higher education policy?

But there is no hiding from some uncomfortable findings. There are some groups who appear to end up earning less over their lifetimes than if they had not gone to university in the first place. I referred earlier to expanding higher education to the point where returns to the marginal graduate falling to zero. But the sceptics would say that the problem is that we have over-shot and some people are going whose marginal returns are below zero if you use a high discount rate for future earnings. (Though this is on the specific measure of personal earnings and ignores other benefits such as, for example, better health and benefits for the children of graduates.) How can one justify people going to university who are going to earn less than if they had not gone? Can one believe

that such information about possible future earnings should be available to prospective students but then ultimately it is a personal decision for them? Or should the government and the Office for Students (OfS) step in and close such courses down? Before assessing that option we should look at another body of evidence cited by the edu-sceptics which they see as the most reliable reason for penalising courses – it is not just earnings but the type of jobs graduates are doing.

7. ‘Over-education’?

A further strand of anxiety about increasing numbers of graduates is ‘over-education’. It claims to be an analysis of skills and the labour market. But it also evokes an image of frustrated graduates as moody figures from a Dostoevsky novel full of hatred for the modern world for wasting their education. What does it mean?

The Office for National Statistics caused a stir with a press release announcing ‘One in three graduates overeducated for their current role’.⁵⁰ They estimated that in 2017 about 16 per cent of 16-to-64-year-olds were ‘over-educated’, ie had more education than required for their job, rising to 31 per cent for graduates. However, their measure is not telling us anything about whether the degree is relevant to their job or helped them to perform it well. Instead, it defines overeducation as standing out from the crowd – it is a measure of whether your education is more than one standard deviation above the mean level of people doing the job.⁵¹ Someone might be using the skills and knowledge from their higher education to great effect and still end up being defined as ‘overeducated’. It ignores potential benefits to having graduates in jobs where they are not highly represented.

The evidence which gets most attention from policymakers comes from the Graduate Outcomes Survey of outcomes 15 months after graduating. It is the biggest and best survey we have, with a very large sample because universities still have pretty good contact with people so soon after they have graduated. We know a lot about graduates then, including the jobs they are doing. The longer we wait, the less thorough the sample. So we use the best possible information, which means shortly after graduating. But this is a classic example of the drunk looking for his keys where the streetlights are. The data may be excellent, but it is the wrong place to look to assess how graduates are doing.

The trouble is that many graduates are on a long and not necessarily straightforward route to a career. Assessing where they are at 15 months is premature. It is another example of the hare and the tortoise. We reward getting a round peg into a round hole very quickly and assume after that education's job is done. That seems neat and tidy. It favours job-specific training. Getting you quickly into the right job scores highly. But youthful gains in employment for apprenticeships and vocational courses diminish over time, and by age 50 individuals who had a general education were more likely to be employed. One magisterial international study states 'in many countries the initial (relative) advantage of vocational education in terms of employment and income reduces with age and is eventually surpassed – potentially because more general education better equips the average worker for future training and technological change. But the existence (and extent) of this potential trade-off varies across countries.'⁵² The advantages of vocational training in smoothing entry into labour market have to be set against disadvantages later.

The IFS makes this point using LEO data:

'For male graduates who were 30 in 2016, we predict earnings to rise by £15k from age 30 to age 40, compared with a rise of just £5k in the median earnings of non-graduate men. The gap in median earnings between graduate and non-graduate men continues to grow strongly until individuals' mid-40s ... We predict median real earnings of female graduates who were 30 in 2016 to rise by around £5k from age 30 to age 40, compared with no growth for non-graduate women. Among degree subjects, law and medicine stand out in that their female graduates do see large growth in median earnings between ages 35 and 40.'⁵³

Higher education is a good long-term investment which is not necessarily captured in the job you are doing 15 months after leaving university.

There are other problems with the Graduate Outcomes Survey measure. It uses the Standard Occupational Classification (SOC) to divide up jobs into graduate or non-graduate. SOC categories 1–3 count as graduate jobs. This is a very crude indicator for the OfS to use to measure university performance. And ironically on this metric there were found to be around 900,000 *fewer* graduates in the population than there were employees in this definition of ‘graduate jobs’.⁵⁴ Maybe the real story is a shocking shortage of graduates.

The idea of the over-educated graduate is that they are wasting their education if they are in a non-graduate job. But they may be making a sensible judgement on their long-term prospects. Take the example of veterinary nurse, which like nursing auxiliaries and assistants, is classified as a non-graduate job. Many people get into these roles without a degree and do an excellent job. One survey suggests 10 per cent of veterinary nurses have a degree, though the job does not require one.⁵⁵ Are they all frustrated at being over-educated? Perhaps. But there is another scenario. One route to becoming a veterinary nurse is a three-year diploma course, probably at an FE college with an option of an extra year’s study to turn it into a BSc, perhaps at a local university or a course at college validated by one. That BSc may mean a bit more understanding of the underlying science, which you may think worthwhile. The student may have ambitions to move on and up in the veterinary world and think that the extra year of study and the BSc will help. Maybe the course is very well taught and gets students so interested that more want the extra year. That decision to do an extra year of study is not absurd. But a college or university which provides that extra year after which the student becomes a veterinary nurse will fail on the official metric of graduate outcomes. The edu-sceptics say that a greedy college or university is extracting a year of fees from a student who does not need the qualification and can perfectly well get into their first job without a degree. They doubt the university explains to the gullible student that the extra year is not necessary. So they say it is a waste of the student’s time and of the cost of educating them. If some of the loans have to be written off, then the taxpayer will be funding it and that cannot be justified. Such programmes therefore must be penalised.

There are different interpretations of this behaviour and it is subject to legitimate political debate and disagreement. But wanting to do that extra year to gain the BSc is probably a good move even in the narrowest economic terms. Over the next 40 years there are going to be enormous advances in care of animals, and getting a degree with a bit more science now could well be a sensible investment in a long-term career. That is what Robbins thought too.⁵⁶ Denouncing such an option as ‘over-education’ is a dismal failure to understand how we as individuals and as society progress. It ignores the fundamental, inherent value of education.

Teaching was not a graduate profession for a long time. But some people went into teaching who did have a degree. Was that a disaster for them or for their students? Just possibly we progress by bringing some graduate perspectives to a job. There were efforts by the last government to penalise an institution which leads to such apparent waste. Even if one were to accept that in the long run some people may not achieve the fulfilling jobs they hope from their studies, is a measure after 15 months the best way to assess this?

There is moreover interesting evidence that the wider benefits of higher education, such as improved health, are secured anyway by the graduate whatever the classification of their job. ‘There are significant alternative benefits from higher education that accrue even to graduates who are under-employed, including better self-reported health and greater external benefits for the rest of society.’⁵⁷

One very good thing about the graduate outcomes data is that it asks the graduates what they think. Indeed it is the UK’s biggest annual social survey.⁵⁸

The evidence from the graduates themselves about their work is pretty good:

- ♦ 84 per cent agree or strongly agree that their current activity is meaningful.
- ♦ 77 per cent agree or strongly agree that their current activity fits their future plans.
- ♦ 69 per cent say it is utilising what they learnt at university.⁵⁹

They have completely understandable worries ranging from the difficulty of getting onto the housing ladder to the threat of climate change. They may think the Boomers have messed things up for them – and I wrote a book arguing that we had.⁶⁰ But the supposed mistake of going to university is not high on their list of complaints. They are characters out of Jonathan Coe rather than Dostoevsky.

There is further survey evidence, notably from Bobby Duffy's work at the King's Policy Institute showing most students are pleased they went to university but some have doubts on studying the right subject. His latest survey shows 87 per cent of graduates would choose to do an undergraduate degree again – virtually unchanged from 84 per cent in 2020. However, of those 87 per cent, 48 per cent would do the same degree and 39 per cent would choose a different degree. Only eight per cent said they would choose not to go to university.⁶¹ So the problem is not overall with higher education, it is subject choice itself, heavily influenced by the English problem of early specialisation and limited opportunities to change subjects.

8. Closing down bad courses? From B3 to a new approach

We can begin to see the more sophisticated contemporary form of the age-old argument that too many people are going to university. Now the latest evidence is used to argue that the real problem is some courses at some universities which yield on average low returns and dump their graduates in non-graduate jobs. The culprits are particularly courses in the creative arts and social care too.

The current mechanism for tackling this is the set of conditions for registration with the OfS, which are also a requirement for receiving student loans. Condition B3 is for positive outcomes for students, but narrowly defined to ignore the wider evidence about the value of higher education. Instead B3 sets three minimum thresholds for student performance – two for completion and one for progression. For full-time undergraduates they are as follows:

- ♦ that 85 per cent should continue from first to second year
- ♦ that 75 per cent should complete their course
- ♦ that 60 per cent of graduates should be ‘in professional employment or any type of further study or retired, travelling, or caring for someone 15 months after completing their course.’⁶²

The recent review of the OfS by Sir David Behan criticises the way that the OfS has operated B3. It is run without any regard to the Teaching Excellence Framework, an earlier attempt to assess teaching quality, introduced by Jo Johnson, when he was minister for universities, science, research and innovation, which the Behan report assesses more

favourably.⁶³ B3 now appears to be on the way out under the new government. But it is still worth briefly considering the story of B3 because it reveals deep misunderstandings of higher education which need to be tackled or they threaten to emerge like a monster from the depths again.

These three measures are very different from the measures of performance used at any other stage of education. They are not measures of teaching quality either by input or output. We tend to assess these earlier stages by educational attainment, and not on labour market outcomes. By contrast for higher education the focus is on measures largely independent of educational quality.

The first two measures are about dropping out. This is a particular English preoccupation when we actually have a very low dropout model because universities decide who to admit – nobody has, for example, a right to go to their local university having reached a set standard in a school-leaving exam, which is how many countries operate university admissions. Countries with more open recruitment and no specific university selection have much higher dropout rates. Indeed the UK has the lowest dropout rates of any OECD country and is way above the OECD average, as this OECD table for completions shows.

Table 6 Completion rate of full-time students who entered a bachelor’s or equivalent level

Completion timeframe	Gender	UK	OECD
Within theoretical duration	Men	67.3%	33.1%
	Women	71%	44.3%
Within theoretical duration +3 years	Men	81.7%	61.2%
	Women	86.7%	72.8%

Source: OECD Education at a Glance 2022.⁶⁴

(The OECD has two measures of completion. One defines completion as ‘completing the course within the theoretical duration’. The second defines completion as ‘completing the course within the theoretical duration + 3 years’, so it includes people who for whatever reasons take up to three years longer than the normal amount of time to complete.)

Ours is clearly already a selective low dropout rate model, but there is still a media narrative of lots of students dropping out which bears no relation to the international evidence. If anything, our dropout rates are too low, suggesting risk averse recruitment and intense pressures on students to stick with a course even if it isn’t working for them.

The agenda of successive governments is a lifelong learning entitlement and promoting more modular courses to make possible a much wider range of options than the three-year course for the honours degree. The aim is to encourage greater flexibility, making it easier to leave having done part of a course and collect a credit for it. The policy aim is to make it easier to dip in and out of higher education. It is hard to reconcile that agenda, pushed by successive governments, with punishing universities for students not completing their course. The whole idea of the shame of dropping out of a course is old think.

The third measure of graduate progression is the one which Tory ministers focused on most –progression to a graduate job after 15 months. The then education secretary announced in July 2023 recruitment limits on 66 providers where fewer than 60 per cent progressed after 15 months. That magic number then reappeared in the Tory campaign and the Tory manifesto referred to:

‘changing the law to close university courses in England with the worst outcomes for their students. Courses that have excessive drop-out rates or leave students worse off than had they not gone to university will be prevented from recruiting students by the universities regulator. This will protect students from being miss-sold and the taxpayer from having to pay where the graduate can’t.’⁸⁵

This new law, clearly based on B3, would have stopped universities from recruiting students to specified courses. (New legislation might not even have been needed as the OfS already has powers to cap recruitment.) Applying such a power is not compatible with the classical liberal English model of higher education. Romantic traditionalists might date that back to the refusal of the governing body of Magdalen College, Oxford, in 1687 to accept a new president imposed on them by King James II, leading to the expulsion of the fellows. The power for the government via its appointed regulator to require universities to close specified courses is a major shift toward direct government power to ban particular courses of study. That is quite a stark move away from the way liberal democracies treat universities. It would be very dangerous in the wrong hands. The ONS has already been reviewing whether English universities are now under so much public control that they should enter the public sector.

I am a realist about these things, and political settlements change if there are deep scandals and problems. But we have seen that the measures of failure used as the basis for this unprecedented intervention do not justify such draconian measures. On two of the three B3 measures, English universities are already performing best in the OECD. And no serious measure of university performance in the jobs market looks at outcomes after 15 months on one crude measure of a graduate job. It fails to understand how universities actually prepare students for a liberal jobs market. We have already seen what a poor measure it is of the long-term benefits of higher education.

The taxpayer interest is sometimes cited as a justification for intervention. This seems a bit odd when the OECD's latest estimate is that on average there is a £75,000 return directly to the UK government for each UK first degree student, or, by IFS' estimate, £110,000 per student for men and £30,000 per student for women⁶⁶. You might think governments would just pocket the money and hope universities keep on doing their job. The upfront cost of higher education to taxpayers is at historically low levels. The latest OECD data shows that the share of public expenditure on tertiary education is 23 per cent of total tertiary

spend in the UK, compared to an OECD average of 68 per cent. (A separate estimate puts taxpayer spend even lower at 16 per cent).⁶⁷ Indeed the UK is the OECD country with the lowest public share of tertiary education spending and the highest private contribution – mainly graduate repayments. So if there is any country where higher education can operate with a degree of autonomy from government control on behalf of taxpayers, it should be us. Indeed one of the benefits of going for a predominantly graduate repayment scheme was to keep government away from universities. It is a deep disappointment for me that as we shift away from taxpayer support to graduate repayment, if anything, the problem of government micro-management gets worse. The model should be informed choice by students, not excessive control of individual university courses from Whitehall. It is students and graduates and their views which matter. The graduate repayment model should roll back government interference and strengthen the voice of students and graduates (I have called them ‘consumers’. They aren’t just that, there is lot more to education. But there is a contract to deliver a service to them.) There is a warning here for pro-market reformers – even a shift to private payment does not automatically liberate institutions from government control.

You may think that this is all history now. But the Tory manifesto reflected a critique of universities widespread across the media. Moreover, the development of LEO data and other measures of graduate outcomes over the past few years continues to excite officials and commentators who want to fashion new policies for higher education around them. The DfE may not value university autonomy – that is why Robbins did not want universities brought under the education department⁶⁸. The new government talks of a fresh approach but may not be immune to these pressures. The letter to universities of 4 November 2024 from Bridget Phillipson accompanying her fees announcement set out her approach:

'We should be proud to have one of the best higher education systems in the world. But we need to be clear that there are also pockets of provision where standards are unacceptably low, which means that some students are being held back by poor outcomes. To maintain and enhance our national and international reputation we need a culture which accepts nothing less than high standards, and which requires continuous improvement for all. This will need a more rigorous approach to improving quality and supporting improvement. I ask you to work in partnership with the re-focused Office for Students as they develop and implement a new approach, following the conclusions of Sir David Behan's review.'⁶⁹

This new approach is going to have to be developed over the next few months. The reference to 'pockets of provision where standards are unacceptably low' is not, I hope, a coded reference to the old and exploded B3 metrics. There needs to be a very different approach to the quality of teaching, with the TEF a much better starting point. There could also, for example, be clear metrics of student contact hours, direct personal engagement with academic staff and size of seminars. The underlying source of the problem is anyway completely different: there is such a focus on research excellence, which drives university rankings, that it becomes rational for academics to reduce teaching to do more research. If that pushes a university up the rankings and increases the status of the degree with employers, it is even paradoxically in the financial interests of the students. This is an incentive structure promoted by successive governments.

My personal view of quality of university teaching is rather different than B3 metrics. Teaching at university level is at its best when it encourages students to dig deep into a subject, preferably one they love or come to love. Then, as a happy by-product, they develop a wider set of skills. They learn stuff that interests them and have to organise their thoughts. That is better than skimming the surface of something which doesn't really interest you. Indeed this freedom to pursue a subject you choose because it interests you is one of the delights of HE – UCAS ran an essay competition for new students describing their

first year of university and what came across most was the sheer joy of learning because they were at last free from a certain regimented type of schooling. I don't particularly mind if the student is engaged in making a satellite or studying Byzantium or German philosophy or furniture design or the business of running a golf club or American presidential elections or genomics or monetary economics – or indeed a combination of these as they could in America. What matters is that they study properly, rigorously, deeply. That is best for them, their cognitive development and wellbeing, and probably best for the economy.

One's course through an open, liberal labour market is not a predictable straight line – the most popular course studied by CEOs of FTSE 100 companies used to be history, but to study history in order to become a CEO would be very odd indeed – though Richard Davenport-Hines makes a strong case it was seen as training for statecraft.⁷⁰ That has been the English liberal settlement in higher education, and the financing reforms shifting the costs of higher education further away from taxpayers were intended to strengthen it. The prospective student should be well-informed about the economic outcomes of different courses but that need not determine what they should study. And the evidence is that students are indeed not thinking that way. According to a UCAS survey of around 27,000 students, the most cited reasons students give for their course choices are:

1. It is the subject I enjoy most (74 per cent).
2. It will give me good career prospects after graduation (54 per cent).
3. I needed to study this subject to pursue a specific career (46 per cent).
4. It is the subject I am best at (39 per cent).⁷¹

Now we must compare that with a different model, the degree apprenticeship.

9. Degree apprenticeships and technical education at university

There is a fixed pot of money for apprenticeships. Degree apprenticeships are the programme that has been most favoured by ministers and the media but expanding them comes at the expense of other apprenticeships. They particularly go to established company employees aged over 25. They are expensive, costing over £20,000 per course. They are marketed as higher education without the graduate debt but someone has to pay for them. Employers do. They are a major charge on the Apprenticeship Levy. They are squeezing out apprenticeships for younger people.

Table 7 Spending on Level 6 and 7 Apprenticeships, total and as a percentage of apprenticeship levy

Year	Spending on Level 6 and 7 apprenticeships (£m rounded)	UK revenue from apprenticeship levy £bn	Spending as % of revenue
2017-8	40	2.3	1.9
2018-9	140	2.7	5.0
2019-20	250	2.8	9.0
2020-21	390	2.9	13.4
2021-2022	510	3.2	15.7

Source: 'Apprentices: Question for Department for Education', 26 April 2023⁷²; and HMRC, 'HMRC tax receipts and National Insurance contributions for the UK', 3 October 2024.⁷³

Degree apprenticeships are also subject to B3 conditions, but the minimum requirements set by the OfS are different and tell us a lot about their performance.

Table 8 B3 conditions for degree apprenticeships

Continuation	Completion	Progression
70	55	75
Compared with conventional honours degree		
80	75	60

Source: OfS. (2023). *How we regulate student outcomes*.⁷⁴

The Tory manifesto was proposing to close degree courses because of what were seen as low completion rates, in order to shift funding to apprenticeships, which at a comparable level have far lower completion rates. (Overall, the completion rate for apprenticeships is about 55 per cent, compared with about 89 per cent for university degrees. Those degree apprenticeships where the university is the provider match wider university completion performance perhaps because there is a proper university access process.⁷⁵) Degree Apprenticeships do however do better at Progression as they get their graduates into specific jobs after 15 months.

There are some subjects which can be studied as a standard degree or a degree apprenticeship. This makes for some interesting comparisons. Degree apprentices are more male, more White, less disabled and less likely to come from a low-income background.⁷⁶ Fewer degree apprentices are eligible for free school meals than those attending university – this is true of apprenticeships at all levels but most acute for degree apprenticeships, where just five per cent were eligible for free school meals compared with 17 per cent of university students.⁷⁷

There is one solution to all this which brings more funding to the apprenticeships for under-25s at levels two and three – what most people care about. Fund degree apprenticeships like other forms for higher education from fees and loans. Remove them as a charge on the

Apprenticeship Levy. Use the levy instead for apprenticeships and other types of training particularly for under-25s and at levels below higher education. That releases more resources for training young people and enables degree apprenticeships to grow alongside other forms of higher education without the limits set by the size of the levy.

There is genuine and understandable concern about how we promote vocational skills. Degree apprenticeships are an attempt to tackle it. We should be embracing universities as a great place to get vocational education. Our picture of the university is so shaped by a particular idea of Oxbridge, itself rather out-of-date, that we don't recognise that this is a key part of the role of the university. But these vocational links can come in many forms – they don't depend on a degree apprenticeship. Sometimes it is a direct partnership between a local university and a local employer. Universities such as Sunderland and Teesside work closely with the car industry in the North East so their automotive engineering courses are directly relevant. A recent article by David Smith, the economics editor of the *Sunday Times*, was a paean of praise to John Neill, executive chairman of Unipart, one of the great employers who relentlessly focuses on improving productivity by developing a skilled workforce. Key to Unipart's achievement of a skilled productive workforce is a partnership with Coventry University which even delivers some of its courses next to the shop-floor.⁷⁸

Having an external accrediting body alongside the university awarding the degree is an effective way of maintaining standards and ensuring relevance to the labour market. Part of the course may be taught according to a curriculum set by an occupational body. Courses vary in the quality and relevance of the vocational skills they provide. I remember meeting one unhappy student and parent complaining that her particular public health degree was not recognised as a useful qualification for a career as a public health inspector. To tackle this, we promoted Kitemarking by outside bodies with real credibility. Some life science courses, for example, did not include wet lab skills, and pharmaceutical companies complained that they needed to provide this basic training for their new graduate recruits. So the Royal Society of

Biology stepped in and now provides a Kitemark for university courses with the necessary wet skills. Media studies has a mixed reputation which is much worse than the actual evidence that it has good employment outcomes. Nevertheless, some do badly on workplace skills so the BBC and other media companies also Kitemark them through the British Journalism Training Council. There are now 180 different bodies accrediting university courses.⁷⁹ From architects to optometrists, chartered engineers to archaeologists, there are institutes which assess and accredit courses for providing the relevant vocational skills. This is a more practical and effective measure than a group of officials in Whitehall looking at a crude dataset and deciding which courses to close. It is possible that 40 per cent of students are on such vocational courses. We need much better reliable public information about them.

Universities can also be true to the industrial traditions of their local town and ensure they remain relevant. Buckinghamshire New University preserves the tradition and the expertise of the furniture industry. Southampton Solent is a great place to get maritime qualifications and had a specific contract to train navigators for some of the bulk shipping carriers. These local skills traditions have survived in local universities. Such vocational universities should command respect and prestige. But sometimes the very critics who say they want more vocational training treat the universities which deliver it with derision, as if they can't be real universities. But they are. In no other country would there be such an agonised debate about whether we could call them universities.

Ensuring vocational rigour in these courses and delivering them particularly through universities makes a lot of sense. First, the kit needed for some vocational courses can be expensive. Universities have big budgets. A further education college might have a budget of £40m whereas a substantial university would have 10 times that. To equip a modern engineering education facility costs a lot – Manchester's new engineering building cost £350m. A wet lab for life sciences is big and expensive too. That is best delivered in a university or increasingly in partnerships between several universities. These facilities should

be accessible to local colleges. The previous government created new Institutes of Technology, but they don't have sufficient funding to be full-scale viable entities. When money is tight for post-18 education, it makes sense to concentrate expensive engineering and science kit in universities and other research institutes.

Second, there is something distinctive about doing technical subjects at university. The key practical and technical skills should naturally be part of a course. But it is not higher education if it is just transmitting a craft skill, however precious, without also some underlying grasp of what is going on. This is the significance of Robbins in setting out the aims of education. His first aim is explicitly vocational – 'instruction in skills'. But he goes on to a second aim that 'what is taught should be taught in such a way as to promote general powers of the mind' and should operate on a 'plane of generality'.⁸⁰ So a computer science course might involve mastering current computer codes but also provide the capacity to develop or learn new ones in future. Graduates should be able to keep their skills up to date as the world changes. That is why their working lives are longer.

There is a third reason for accepting the university model. It is where the young people are. The university is the central institution to manage the transition to adulthood in the Western world – indeed the university has taken on the role of apprenticeships, which used to be residential. So it makes sense to offer vocational courses where the young people are.

This is not just a British trend. Germany is the country most admired by the apprenticeship advocates. But the German model has itself been under pressure as its key industries faced technological change which '... increases the relative demand for high-skilled labour which tends ceteris paribus to an increase in the wage premia for university-educated workers.'⁸¹ So Germany, the poster child of apprenticeships, has shifted to promoting participation in higher education as the 'surge in ICT-intensity of manufacturing has shifted the skills needs of manufacturing firms towards workers with tertiary education, especially in STEM (science, technology, engineering and mathematics).'⁸² Moreover, the

‘increased centrality of high-level skills in advanced manufacturing has weakened the traditional institutional complementarity between specific skills, regulated industrial relations and generous social protection’ and ‘liberalization ... has been instrumental for high-end exporting firms to concentrate wages and benefits on highly educated workers ... higher education has become the centre of gravity of the German skill-formation system. Enrolments at universities have skyrocketed, while the number of young people in the dual apprenticeship system has decreased.’⁸³

Technical education in a university setting makes sense - even in Germany.

10. Summary and conclusion

Sometimes I feel like the sorcerer's apprentice. I battled for LEO data so students could make better informed choices in an open, liberal higher education system. The evidence emerging is valuable and striking. However, that data, together with the Graduate Outcomes Survey, is in danger of being misinterpreted by edu-sceptics and turning into a tool for education planners. That is not what the new data justifies and not what it is best used for.

The LEO data shows graduates earn on average substantially more than non-graduates. But the average earnings of young graduates are not as far ahead of non-graduates as they were. The minimum wage is boosting the earnings of non-graduates relative to graduates. The increase in students is also bringing in people who have a more modest gain from higher education, and so finally bringing down the average return after a long wait when this expected effect did not appear. But that is how expansion works – bringing in people who can gain from higher education even if their gains are smaller than for those already going.

Graduates are much more likely to be in work. This significant economic gain is hidden by a focus on earnings. Now the government is rightly worried about rising economic inactivity and investigating how to tackle it. Getting into higher education is one of the most effective means of inoculating people against economic inactivity.

The IFS summary of the research for their Deaton Review of Inequalities puts all this very well:

‘Higher levels of qualification are strongly associated with better prospects in the labour market. Around nine in ten graduates are in employment between their mid 20s and early 50s. Employment rates of people educated to GCSE level or below are far lower: among those in their 30s, for example, two in five women and one in five men are not in work. Graduates also enjoy higher earnings, with the median 40-year-old graduate earning twice as much as someone qualified to GCSE level or below. Despite a huge increase in the share of graduates, this “wage premium” has barely budged in the last five decades, at least for men. There is good evidence that at least some of this wage premium is due to the causal impact of education improving people’s outcomes, rather than just selecting and sorting people of differing ability.’⁸⁴

The figures behind this wage premium are massive – a direct return in increased lifetime earnings after tax and loan repayments as a result of going to university of £280,000 for men and £190,000 for women, compared with someone similar not going. That does not include the wider benefits of better health and wellbeing. It is not that graduates are somehow better people but because higher education makes your life seem more like a project you have a role in shaping, which in turn affects your behaviour.

This evidence puts the fear about student loans and graduate repayment in perspective. These are substantial returns after loan repayments and tax on earnings. We saw earlier that the average income of a graduate aged 21 to 30 is now £31,500. Loan repayments are 9 per cent on earnings above £25,000 on the latest terms. That is a deduction of just under £50 per month on pay of £2,625 per month for the average young graduate. We saw in Section 2 that the average young graduate is earning £5,000 per year more than the non-graduate. That is about £420 extra per month. Paying £50 per month out of that to fund the university which gave such a boost to their earnings is not an unfair

burden. Student loan repayments are not some crippling cost on graduates. Moreover, those monthly repayments don't change if fees go up. Misplaced anxieties about this should not stand in the way of putting up fees and ensuring our universities are properly funded to deliver high-quality education. If we don't do this, it is the students who lose out.

Today's narrative around universities is far more negative than the evidence justifies. But all that negativity is having an effect. Universities have had a 25 per cent cut in the real resource for educating each student, far worse than any other stage of education. Universities and their graduates are accused of intellectual snobbery and an assumption of superiority. Such attitudes are repellent. Saying it is better not to go to university is an admirable attempt to avoid any assumption that graduates are somehow superior when they aren't. But that approach can easily mutate into what has been called a 'luxury belief'. Rob Henderson defines it as 'ideas and opinions that confer status on the rich at very little cost, while taking a toll on the lower class'.⁸⁵ So affluent graduates can signal they are virtuous and not patronising by saying: 'Of course young people don't need to go to university'. But at the same time they assume that their own kids will go. And if their kids don't go, there is now an acceptable alternative: a socially selective degree apprenticeship, perhaps in a City firm. That will not be paid for by their child when they graduate and get a well-paid job; instead it will be paid for out of a fixed pot of money raised by a levy on employers, squeezing out other young people who would really benefit from other forms of apprenticeship.

Saying you shouldn't go to university and that the so-called 'debt' is unsustainable is costless virtue signalling. Costless for the graduate edu-sceptics anyway. But meanwhile the message may be picked up by less advantaged young people for whom it really matters. It would be a tragedy if they failed to take advantage of the opportunity of going to university when the evidence still shows that it is very likely to be beneficial. Going to university is the most powerful single tool we have to boost the living standards and life chances of many young people.

There are some courses which offer poor direct earnings returns for many of the students on them. Politicians and officials who believe they can plan these things itch to intervene to close them down. They offer two justifications. First is the taxpayer interest. Overall the taxpayer is a massive beneficiary of the current system – collecting lots of extra tax and putting less in than most other OECD countries. Some graduate loans will have to be written off if graduates have low earnings. When the repayment threshold was raised after the 2017 general election, these write-offs, the RAB charge, escalated. But the package of reforms in 2022, after the Augar review, tackled the problem: the typical graduate can once again expect to pay back for the cost of their higher education during their working life. The estimated RAB charge had reached a peak of about 50 per cent, and the DfE estimates it is now down to about 25 per cent. However, the IFS research, which the education sceptics embrace, brings the estimate down as low as two per cent. The IFS explain: ‘the main reason for this discrepancy appears to be that the RAB charge is now very sensitive to assumptions about graduates’ mid-career earnings, and our model is substantially more optimistic about these earnings than the DfE model.’⁸⁶ Having to write-off two per cent of graduate debt is hardly a reason for ending the English model of autonomous universities.

The other justification for intervening to close courses is that the government is acting on behalf of students who are being misled about the value of these courses. The most important role of the new LEO data is as a fantastic tool to enhance student choice: it does not need to be used instead to suppress it. Well-informed students should see the risks they are running.

Instead of getting bogged down in these arguments we should investigate what this evidence tells us about how universities can help the government fulfil its five missions⁸⁷. In an interview in *The Sunday Times*⁸⁸ in November 2024, Cabinet Office minister Pat McFadden talked about the government’s mission to *break down barriers to opportunity*. The first key milestone under this mission will focus on early years education. One of the justifications he put forward for this

was the IFS estimates that formal pre-school education would lead, on average, to a lifetime gross earnings gain of £27,000, or nearly £16,000 net compared with not participating.⁸⁹ But these net gains are around 10 per cent of those associated with going to university, according to the IFS. If a gain of £27,000 in future earnings justifies government spending, then surely a gain of £280,000 for men and £190,000 for women justifies government support as well.

We have seen that 40 per cent of young people who do not go to university regret that by the age of 24. By contrast, 87 per cent of graduates would choose to do an undergraduate degree again. This suggests that the edu-sceptic narrative trying to steer people away from higher education is itself thwarting many young people from taking opportunities they could and should have taken.

And accessing higher education is a very effective way of boosting the opportunities and earnings of kids on free school meals. For those who were previously on free school meals and go to university, average earnings growth is 75 per cent. That is slightly higher than the wage growth of graduates who were not on school meals. It is a lot higher than earnings growth for non-graduates previously on free school meals, of 26 per cent between the ages of 23 and 31.

Going to university also tackles economic inactivity: a maximum of three per cent of young graduates are on out-of-work benefits, while for non-graduates the peak is 17 per cent before falling to 11 per cent.

Universities should be embraced as a key part of the government's strategy for growing the economy, spreading personal opportunity, increasing vocational training and revitalising towns that have been left behind. The luxury beliefs of the edu-sceptics are getting in the way of some of the most effective policy interventions available to government.

The evidence is clear.

- **More does not mean worse.** Higher education participation goes up just about every year in every OECD country. It is a deep-seated economic and cultural trend. Despite the increased numbers going and negative media, 81 per cent of graduates say their degree was worth it overall and 87 per cent say they would go to university again if they had the choice. Young people are far more likely to regret not going to university than going.
- **It pays to go to university.** It is striking how well graduate incomes have held up despite such rapid increases in their numbers. By the age of 31, graduates are earning 37 per cent more than non-graduates with at least two A-levels – £30,750 and £22,500, respectively. An undergraduate degree is estimated to be worth on average £280,000 for men and £190,000 for women, net of tax and student loan repayments, relative to what a graduate would have earned over their lifetime had they not gone to university.
- **And it pays the country too.** The taxpayer contribution to the cost of higher education participation is relatively low. Indeed, it is the lowest in the OECD, whose latest data puts the UK's share of public expenditure on tertiary education at 23 per cent, compared to an OECD average of 68 per cent. There is a direct gain to the exchequer of an individual enrolling in an undergraduate course of around £110,000 per student for men and £30,000 per student for women.
- **The non-economic returns are at least as great as the economic.** If you were a doctor, you would prescribe more education. Studies show that higher education is a driver of better physical and mental health, even after accounting for other biographical factors, such as socioeconomic background and gender. The benefits of higher education are felt by the children of graduates too, and these cross-generational benefits are estimated to be worth at least as much as the financial benefits of increased earnings.

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- **There is little evidence of widespread ‘bad’ courses.** On two of the three so-called ‘B3’ measures that the Office for Students (OfS) requires universities to meet – students’ progression within a course and completion of the course – English universities are already performing best in the OECD. And the third measure – graduates’ outcomes (ie employment and further study) 15 months after graduation – is far too short term to be a serious measure of university performance.
 - **Higher education has very significant long term returns.** It prolongs the working lives of graduates compared with non-graduates. And graduate earnings carry on rising long after those of non-graduates have reached a plateau. These gains are hidden if we only measure where a graduate is immediately after graduating or if we set such high discount rates that only short term gains count.
 - **Degree apprenticeships are not the ‘silver bullet’ that some think.** Degree apprenticeships are the programme that has been most favoured by ministers and the media but expanding them comes at the expense of other apprenticeships. Degree apprenticeships are squeezing out apprenticeships for younger people, with the share of the apprenticeship levy spent on degree apprenticeships increasing from around two per cent in 2017–18 to nearly 16 per cent in 2021–22. They also have far lower completion rates than university degrees (55 per cent compared with 89 per cent) and deliver less social mobility than university degrees: only 5 per cent of degree apprenticeship students were eligible for free school meals, compared with 17 per cent of university students.
 - **This evidence puts the fear about student loans and graduate repayments in perspective.** The average income of a graduate aged 21 to 30 is now £31,500. Loan repayments are 9 per cent on earnings above £25,000 on the latest terms. That is a deduction of just under £50 per month on pay of £2,625 per month for the average young graduate. The average young graduate is earning £5,000 per year more than the non-graduate – about £420 extra

per month. Paying £50 per month out of that to fund the university which gave such a boost to their earnings is not an unfair burden – particularly as those monthly repayments don't change if fees go up.

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