

Expensive machines

- part 2

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How should we respond to the attempt by the UK government to fit English post-secondary education to human capital theory (HCT), described in PSE 111? Firstly, we cannot hide behind idealism. We can't just posit an alternative vision of higher education, of the 'public university', that makes us feel better but leaves the task of social change to the ruling class, whether this be Tory or Labour. Secondly, we cannot afford to be defensive. If we are to develop a strategy that can win hearts and minds and build the kind of movement necessary to win truly progressive post-secondary education in the UK and elsewhere, we have to accept some of the truths within recent neoliberal attempts at reform. Once we have accepted these truths, we can begin to at least sketch out the terrain upon which any alternative to HCT must operate.

The first of these truths is that people, especially young people and their parents, are being oversold higher education. As we saw in Part 1, decades of crude human capital theory, and its most detached counterpart, 'skills-biased technological change', have convinced people that education creates jobs and that 'learning equals earning' (1). They don't. Investment in production, whatever that may be, creates a demand for wage labour of varying levels of skill, which can be provided for by different levels of education. This may be publicly funded, privately purchased and consumed, or provided for by employers as training or apprenticeships. As I'll argue below, the best way to improve outcomes for students today would be a radical, state-led 'just transition', which would create millions of good, skilled jobs and therefore demand for further and higher education.

The second truth is that graduates with certain degrees do not, in fact, get 'value for money'. As explained in Part 1, arts, humanities and social sciences (except economics) degrees tend to achieve lower 'graduate premiums' (the difference between graduate and non-graduate wages) than other subjects like engineering, science, medicine, etc. This is a fact, which of course ignores other ways of valuing these subjects apart from in monetary terms. However, the real point is that HCT understands this back to front. Because HCT

assumes that supply drives demand, and that surplus value comes from utility, it can only conclude that there must be something wrong with the commodity - that the deficiency in value comes from something intrinsic to an arts, humanities or social sciences degree.

But if we turn the economics of education back on its legs, we can see that the lower value of an arts, humanities or social sciences degree comes from a deficiency in the economy itself. The economy is not rewarding investment in these subjects. To understand why this is, we must get to the bottom of another economic 'mystery': the UK's 'productivity puzzle'. Ever since the 2008 financial crisis, the UK economy has been growing at a sluggish rate. In the decade leading up to the pandemic, output per hour worked - a key measure of a nation or sector's productivity - grew at less than half the rate it had averaged in the years leading up to the 2008 financial crisis. By the end of 2019, it was 20 per cent below the level it would have reached if it had continued on its pre-crisis path (2).

The shape of the UK economy has a major part to play. We have a shrinking manufacturing sector, where automation and offshoring has enabled companies to shed workers, retaining fewer high paid workers at home while exploiting low tax zones and weak labour laws abroad. The UK's zealous adoption of this business model from the 1980s has made its manufacturing sector more productive than the global average. But the structural unemployment that results from this has forced more workers into insecure, low paid work and self-employment. The availability of cheap labour has meant much lower productivity levels in the services sectors, such as retail and hospitality, which have replaced manufacturing sectors as the main contributors to economic growth (3).

If we look at graduate destinations, this explanation is compelling. Almost all (94 per cent) of creative arts and design students graduating between 2018 and 2020 were employed fifteen months after graduation (4). Two-thirds of them went on to 'high skilled work', which is not bad really when you

consider Biology, Psychology and similarly 'hard' and hugely relevant sciences like Environmental Studies deliver similar outcomes (5). However, only a quarter of them become arts, design and media professionals, earning on average only £20k a year, about £5k less than non-graduates and the current loan repayment threshold. Another quarter end up in retail and hospitality, which, as already noted, offers some of the most low-paid, insecure and exploitative work going.

To complete the picture, we need to look more closely at what working in the creative industries is like. On average, creative arts graduates are three times more likely to be working in freelance and self-employed roles, almost triple the number of graduates from other subjects. If you are self-employed, you are three times more likely than salaried workers to be on low pay, and on average the solo-self-employed earn around 45 per cent less than employees (6). It's likely that arts graduates who are trying to make it in the creative industries are actually doing a bit of everything: part-time work in an arts-related job like a gallery or in teaching; a zero-hours job in a bar, restaurant or cafe; and then, with what time and energy is left, being an artist, 'maker' and entrepreneur. Sounds exhausting.

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It's not surprising, therefore, that arts graduates don't get a return on their human capital investment. Ironically, culture is one of the most important and fastest growing industries in the UK, so much so that the Government is planning to publish a 'sector vision' for increasing its growth. Completely undermining the Government's war on arts and humanities in the university sector and rubbishing another economist fantasy that higher productivity means higher pay, productivity in the arts and culture industry between 2009 and 2016 was greater than that of the economy as a whole, with gross value added per worker at £62,000 for arts and culture, compared to £46,800 for the wider UK economy (7). The truth is that we, as a society, don't value creative jobs, and are happy to let a creative ruling class hyper-exploit our artists and craftspeople for profit.

Perhaps there will be a skills shortage in the arts in the future? As suggested in Part 1, the Government may then regret its carrot and stick-led destruction of arts education, as children no longer want to study these subjects at school and schools won't be able to find any teachers either way. Which brings us to the third and final truth. There are

labour and skills shortages. It turns out that most labour shortages are in low-paid, insecure sectors like hospitality, health and transport - a legacy of Brexit and new, stricter immigration laws, as well as COVID-related long-term illness (8). The over-supply of graduates in the economy and their trading down for half-decent non-graduate jobs means that more non-graduates can look forward to getting stuck in these sectors for want of a degree.

In terms of skills-shortages, these are mostly skilled trades, like manufacturing and construction. A third of these vacancies are proving hard-to-fill because of applicants lacking the appropriate skills, qualifications or experience, the latest Employer Skills Survey (2019) reveals. By occupation, employers faced the greatest challenges in finding suitably skilled candidates for skilled trades positions, with nearly half of vacancies in these roles being skill-shortage vacancies (48 per cent). This occupational group has also had the largest increase in skill-shortage vacancy density since 2017.

But it's also a long-term problem, created by exactly the kind of bad state intervention described before. Beginning in the 1960s, the Tories helped the construction and manufacturing industries shift responsibility for training over to the state, which is to say, workers themselves as taxpayers, via the Industrial Training Boards (9). Thus followed decades of mismanagement, under-funding and marketisation, which had the effect of destroying technical education in the UK. Alongside the ideology of HCT, which encouraged a new generation of aspirational parents and young people to aim for university above all other education routes, we now have a crisis of technical education.

This is perhaps most acute in the construction sector, which is less and less attractive to young people and suffers from a particular problem of market failure with regard to training. According to the latest triennial review of the industry training boards (2015), the construction industry is typified by project-based working, which means there are very low levels of direct employment as firms rely on subcontractors to cover variable levels of demand. In general, this type of employment means that construction firms do not have the incentive to invest in the skills of the workforce, the Government notes. We also have once again an issue of self-employment. In 2012 approximately 40 per cent of construction jobs were self-employed compared to around 14 per cent across the whole economy (10).

Today, the Government is once again trying to address this general problem of over-education in

higher education and under-education in skilled trades and manufacturing through policy. Alongside libertarian paternalism in HE, described in Part 1, it is, firstly, bullying FE colleges into solving a problem that is completely outside their control. The Skills and Post-16 Education Act 2022 now requires colleges to come up with local skills improvement plans in co-operation with local employer representative bodies, which must then be approved by the Secretary of State. Failure to do so may lead to 'intervention', which can include the 'transfer of property, rights or liabilities' as directed by the state (11). This is a pretty big stick.

Secondly, the Government is creating a suite of technical qualifications aimed at giving people an alternative to academic routes. At Level 3, the Government has introduced T-levels: two-year technical courses taken after GCSEs, equivalent in size to three A-levels, that combine classroom learning (80 per cent of the course) with a 45-day industry placement (20 per cent). Employer responses have so far been mixed. A 2021 government survey found that only 30 per cent of the 5,000 employers asked said they were interested in offering placements, a number that only rose to 34 per cent when they were told about the £1,000 per student incentive payments that the Government now offers (12). Numbers are also relatively low, with about 6,000 students now taking T-levels. To put that in context, over 200,000 students take the equivalent BTECs - the 'back door' route to HE that the Government want to close by defunding.

At levels 4 and 5, which sit between A/T-levels and undergraduate degrees (Level 6), the Government is simplifying the higher technical qualification (HTQ) system by limiting funding to courses that align to employer-set occupational standards and offering students a Lifelong Loan Entitlement, which is equivalent to four years of post-18 education and can be taken at any point in their lives. The Government hopes that by reforming HTQs it can address the 'missing middle' of human capital investment, which sees the UK once again lagging behind countries like Germany, Japan and the US both in terms of Level 4/5 education and in much lower earnings for those who don't get a degree (13). Worryingly, the Government is also experimenting with a Level 4/5 equivalent of the LEO dataset (see Part 1) (14).

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The end point of all this reform, as Martin Allen suggests, seems to be to return things to 'how they

used to be', with universities for elites and 'useful' education for everyone else (15). But in all the laments about productivity and criticisms of 'mickey mouse degrees' what we don't really have is any reference to the most acute and wide-ranging crisis of our time: the climate emergency. Most skills gaps in the economy are not in the present, but in the future; they are not in artificial intelligence, but in the collective intelligence and creativity needed to save the planet from extinction.

In the short term, there will be an acute demand for 'climate jobs', which the Campaign Against Climate Change defines as those which directly contribute to reducing emissions, in certain sectors as the UK scales up its legally binding 'net zero' strategy. Unfortunately, given the existing shortage in both skills and labour, one of these is construction. Buildings currently account for about a quarter of the UK's emissions, with residential homes contributing more than half of that. To meet our targets, the Climate Change Committee (CCC) - the independent, statutory body established under the Climate Change Act 2008 that inputs to and monitors the government's climate strategy - estimates that in the next two years, four million homes will need to be retrofitted with insulation and a third of heating sources converted to low-carbon alternatives like heat pumps.

Alongside the re-skilling of existing construction workers, the CCC estimates that around 200,000 new jobs will be created in this sector - additional jobs that will continue to be required for at least 20-30 years. And these aren't just low-paid labouring jobs. PAS2035 building standards call for 'retrofit coordinators', who are essentially project managers overseeing the whole process of making existing buildings more energy efficient. To become a retrofit coordinator, you need to complete a Level 5 Diploma in Retrofit Coordination and Risk Management, after which you can currently earn between £30k and £40k a year, according to Glassdoor. Many other new construction climate jobs will also be graduate level: engineers, managers, surveyors, accountants and, of course, teachers.

Teaching is also a good example of a 'low carbon job'. Alongside the rapid rollout of 'net zero' strategies in all sectors, another way we can decarbonise the economy while also increasing productivity and demand for post-compulsory education is by increasing the proportion of such jobs relative to not-so-low carbon jobs. Pound for pound, investment in care work produces almost three times the number of jobs as would be generated by investment in construction, according

to Green New Deal (GND) UK, with these jobs disproportionately benefitting women. 'Because the environmental cost of care is minimal, a shift into care work would reduce the environmental impact of the economy overall', GND UK points out in its Green Jobs For All report (16).

But really, 'every job requires green skills', as the CACC notes (17). We will all need to become better at being green and must all incorporate a deep ecological awareness into our lives. We know that higher education makes people more adaptable and able to ride out economic crises. At one level, it would make sense to reconceptualise higher education as a form of general education for the green industrial revolution, as some people have argued with reference to the digital revolution (18). However, while higher and further education have an important part to play, as Patrik Ainley has consistently pointed out, 'tertiary education is not the level at which to foster a foundational education', which is what we are talking about with regard to a radical transition to an ecological way of life (19).

What we need, the CACC argues, is a National Climate Service to coordinate massively increased demand for green jobs with supply in all levels of a joined-up, taxpayer-funded, free-at-the-point-of-entry lifelong education system. A system like this would require economic and social planning in the economy to be matched with supply in human capital. But let's be clear, what we're really asking for here is a significant move away from neoliberalism towards socialism, from free markets to economic democracy. This would require not only a fundamental shift in the nature of work but also in the way we prepare people for citizenship through education. HCT is definitely not fit for this purpose. Our job is to replace it with something that is.

References

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14. <https://wonkhe.com/blogs/the-higher-technical-education-review/>
15. 'Another round of vocational qualifications won't create better jobs' in *PSE* 103
16. Here we see a practical way to avoid getting bogged down in theoretical arguments about 'green growth' versus 'degrowth'. Ideally, we shift the circuit of production and consumption away from carbon emissions in a way that increases social and ecological wealth. It's not really about having less. It's about doing more ourselves, not relying so much on the outsourced and obscured exploitation of people and planet. It's actually about increasing productivity, by which we create new social and ecological values, not profit.
17. Note, every job also requires caring skills, and most of what follows on green skills can be applied to caring skills. As pointed out by Jane Lethbridge in *PSE* 102, in her article 'The crisis of care': 'Tertiary education could also start to widen the awareness of how care plays a key role in many sectors, such as the economy, technology and the presentation of care in the media and communications.'
18. Ainley, P. 'General education in an artificially learning society', *PSE* 96
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