

The UK's 'productivity crisis': Why weakening the link between education and family background could help solve it

By Dr Claire Crawford
October 2018

There has been much discussion in recent years about a 'productivity crisis' in the UK. Productivity 'measures how efficiently production inputs, such as labour and capital, are being used in an economy to produce a given level of output.'¹ Workers in the UK produce less per hour than workers in many other developed countries – 16% less than the G7 average according to the Office for National Statistics.² Why is labour productivity in the UK so much lower than in comparable developed economies with similar access to capital and technology?

There are no obvious answers, but the skills of our workforce might be a culprit. A skilled workforce is required to develop, adopt and disseminate the drivers of productivity. We need specialist technical skills to generate new products and technologies; management skills to embrace and spread new approaches, and workers who are receptive to these new technologies and approaches, which may require the development of new skills.

Skill acquisition is a lifelong process. We cannot predict with certainty which skills will be in demand in the long or even the medium term; instead we must build a foundation of core skills that enhance our ability to develop new skills in the future. Each education level offers the opportunity to develop skills that translate directly into future employment opportunities and higher labour productivity. Evidence suggests that the UK may be missing opportunities at all levels. For example, the OECD's survey of adult skills in 2012 found that the basic literacy and numeracy skills of the generation now entering the labour market in England are no better than those of the generation about to retire.³ (Only England and Northern Ireland participated in this study; we focus on the results for England, in which about 85% of the UK population lives.) This is bad

¹<https://www.oecd.org/sdd/productivity-stats/40526851.pdf>

²<https://www.ons.gov.uk/economy/economicoutputandproductivity/productivitymeasures/bulletins/internationalcomparisonsofproductivityfinalestimates/2016#uk-productivity-shortfall-with-the-g7-stable-in-2016>

³<https://www.oecd.org/unitedkingdom/building-skills-for-all-review-of-england.pdf>

news for future productivity, as it suggests that the level of average basic skills amongst the working age population – the base from which new skills can be developed – is likely to fall further, and England is already one of the worst performers in the OECD on this measure.

Another dimension on which England stands out is the strength of the relationship between an individual's own skills and their parents' education: young people (aged 16-20) whose parents do not have A-level (or equivalent) qualifications score almost 60 points (more than one standard deviation) lower in these basic skills tests than individuals with at least one parent qualified to this level. That is a bigger difference than in all other OECD countries except the Czech and Slovak Republics.

Not only do individuals in England have lower basic skills than their counterparts in other countries, they are also far more likely to have low basic skills if their parents are poorly educated. This points to a cycle of educational disadvantage which is prevalent across many dimensions of the English education system, not just at the lower end of the skills spectrum. For example, children from families that are above the 80th percentile in terms of socio-economic status (SES) are about eight times more likely to attend a grammar school or a high status university than those from below the 20th percentile (Burgess et al., 2017; Crawford et al., 2016).

Ensuring that individuals from all backgrounds have access to the educational opportunities to fulfil their potential may be one way to raise future productivity. For both equity and efficiency reasons, we should be looking for and nurturing talent wherever it arises – to maximise the productive capacity of the economy and take advantage of the benefits that diversity can bring. That is why social mobility and labour productivity are inextricably linked: the technological innovators and future managers of highly productive companies will not necessarily be those with the richest or best educated parents, so we must ensure that all children are given the opportunities to flourish.

Unfortunately, we don't know as much as we should about how to reduce socio-economic differences in education outcomes – and what we do know is not always put into practice. For example, there is a reasonable amount of academic inquiry into whether grammar schools are good for social mobility. The short answer is that they're not. Burgess et al. (2017) show that if you live in a selective area – one that has retained the old grammar school/secondary modern distinction – then you will, on average, have higher educational attainment if you go to a grammar school than if you just miss out. But the same research also shows that if you compare children in selective areas going to grammar schools with similar children with similar prior attainment going to state schools with similar intakes in non-selective areas, then this is no longer the case. More importantly, the outcomes of children in selective areas who just miss out on grammar schools are lower, on average, than those of similarly qualified children in non-selective areas. And because grammar schools are so socially segregated, those

from poorer backgrounds are much more likely to be among the group that miss out. So even if going to a grammar school is good for a particular child relative to the alternative in their area, when we look across all children in all areas, selective education looks rather less like the engine for social mobility that it is sometimes portrayed as.

Individuals who go to university still earn more on average than those who don't, which we can assume at least partially reflects higher labour productivity amongst graduates. But these returns can vary substantially according to the subject that individuals study and the institution they attend – with 'high status' institutions often commanding the largest wage premiums. Unfortunately, we also know far less than we should about how to enable students from under-represented backgrounds to enter and flourish in these types of universities.

Since 2012, when the tuition fee cap was raised to £9000 per year in England, institutions charging above £6000 per year – virtually all of them – have had to produce 'access and participation plans'. Essentially, they've had to spell out how they're going to broaden access to their institution, as well as narrow gaps in outcomes between those from different backgrounds once they arrive.

There has been some progress in this regard: just over a quarter of those from the 20% of areas with the lowest historic higher education (HE) participation rates now go to university at age 18 or 19 compared to about 17% ten years ago. The percentage of 18 year olds from these neighbourhoods going to high tariff institutions has also risen, but remains pitifully low at just over 3.5%. The increase over the last decade is lower than for those from the 20% of areas with the highest historic participation rates, meaning that the gap has widened in absolute terms⁴. Drop-out rates have also risen over this period, more so for those from low participation neighbourhoods⁵, and there are still large differences in degree attainment – even amongst students attending the same courses at the same universities who arrive with very similar GCSE and A-level grades (Crawford, 2014).

We know that differences in attainment in these earlier exams are a key part of the reason why there are such large differences in HE access and outcomes between those from higher and lower socio-economic backgrounds (Crawford et al., 2016). There is a growing body of evidence – much of it provided by the Education Endowment Foundation – that points to ways to increase attainment for those from poorer families. But attainment is not the whole story, and despite the substantial investment in this area in recent years, we are not much further forward in understanding how to reduce gaps in HE access and outcomes than we were a decade

⁴ <https://www.ucas.com/file/86541/download?token=PQnaAI5f>

⁵ <http://webarchive.nationalarchives.gov.uk/20180322111550/http://www.hefce.ac.uk/analysis/transfers/nc-rates/>

ago. We must provide better accountability and evidence of value-for-money in this area, and it is encouraging that the Office for Students is funding a new centre whose role will be to help the sector do exactly that.

However, even if we were to completely eliminate the gaps in access to grammar schools or highly selective universities, we're talking about policies that affect a small minority of the population. Of course, we should aim to do this – but we also need strategies to increase the skill levels of those who do not follow these routes, something which often receives far less media and policy attention.

The route to university is straightforward and relatively easy to navigate: you need strong GCSE and A-level grades in the right subjects, plus some knowledge about which universities and courses are likely to be right for you. The alternative routes are less clear. Which of the plethora of vocational qualifications should you take if you do not plan to go to university? They do not all offer positive average wage returns⁶, and with many now run in partnership with specific employers, it is important to ensure that they contain sufficient training in general, transferable skills to equip individuals for the multiple job changes that they can now expect over the course of their careers.

This would be less of an issue if we had a comprehensive system of lifelong learning through which individuals could retrain later, but this is not an area in which England excels. The number of mature students going to university has fallen sharply over the last decade⁷ – at least partly as a result of the changes to HE finance for these students introduced in 2012. Opportunities at lower qualification levels have also been cut, along with the FE budget, which has experienced larger per student reductions over the last few years than primary and secondary schools or higher education⁸.

For our workforce to be equipped with the skills necessary to deliver higher productivity in future, we must ensure that our education system meets the needs of all students: no-one should leave school without basic literacy and numeracy skills; routes other than the one straight from school to university should be more clearly signposted, and everyone should have the opportunity to access and benefit from the education that is right for them, regardless of parental background.

⁶ <http://cver.lse.ac.uk/textonly/cver/pubs/cverdp007.pdf>

⁷ <https://www.universitiesuk.ac.uk/facts-and-stats/data-and-analysis/Documents/patterns-and-trends-2017.pdf>

⁸ <https://www.ifs.org.uk/publications/13306>

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About the speaker

Dr Claire Crawford is a Reader in Economics at the University of Birmingham and a Research Associate at CAGE. Her research focuses on the determinants of educational attainment and participation, especially in higher education. She is particularly interested in understanding what explains inequalities in these outcomes, and what schools, universities and policymakers can do to help reduce these gaps. Claire is also a Research Fellow of the Institute for Fiscal Studies.

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