



Briefing note: Is higher education still worth the cost?

Prepared by Gill Wyness



Summary

- Research suggests an average young person's investment in higher education will pay off. They are more likely to secure better paid work.
- The subject of study may impact the return on investment of university. Particular subjects, such as science, economics and law, provide greater returns than the arts. The institution may also impact the payoff the student can hope to receive.
- Of concern is evidence that those from lower-income backgrounds may still go on to earn less. Those from higher-income backgrounds earn more even when they have similar degrees.
- We cannot say how returns to higher education will change in the post-Covid world. But the current system of income-contingent loan repayment may prove crucial. This means no student has to worry about being unable to repay their fee and maintenance loans if they struggle to find high paying work.

Recommendations

Policymakers should act to reduce the risk that new graduates struggle in the job market:

- particularly those graduating with degrees in lower returns subjects, and
- those from low socio-economic backgrounds who may lack access to crucial networks.

This will cushion such graduates from the risk of lower earnings. It will also ensure that the government maximizes income from student loan repayments.

The Issue

The university experience has changed in the new COVID-19 world. The vast majority of students are receiving most of their teaching online. Social distancing limits their ability to enjoy the social aspects of university. This has led many to wonder whether university degree is worth it.

This briefing note summarizes the evidence on the costs and benefits of university. It considers the costs young people from different backgrounds pay to get into HE and the expected return. We see wide variation in the returns to degrees. Some subjects offer lower returns than others. The UK's higher education finance system offers protection against the risk of low earnings. This may prove crucial over the coming years.

1. How much does Higher Education cost?

UK tuition fees are among the highest in the world. Introduced in 1998 at £1,000 per year, the fee cap was increased to £3,000 in 2006, and again to £9,000 per year in 2012. The cap now stands at £9,250 per year. Each fee rise has been met with widespread concern that young people, especially those from poor backgrounds, would be put off from going to university.

But there are two reasons why our HE finance system actually ensures that students from low income backgrounds have equal opportunities to attend HE.

- First, there are no upfront costs to students. Fees are fully covered by a government backed loan, which is only repaid (at 9% of earnings) once the student has graduated and is earning over £25,000 per year.
- Second, all students qualify for a maintenance loan of up to £9,203 (if living away from home, and outside London) to cover living costs, repayable at the same terms as the fee loan. Both tuition fee and main-

-tenance loan debt is written off after 30 years. Up until 2015 poor students also received non-repayable maintenance grants, but these were abolished, and instead the maintenance loan was extended to cover the loss in income faced by students from poorer backgrounds.

2020 entrants will graduate with around £50k in fee and loan obligations (assuming they borrow the maximum amount allowed for tuition fees and maintenance loans, over 3 years). However, the design of the HE finance system means that no student is ever really "in debt" since repayments are effectively a tax on earnings, which, like all taxes on earnings, do not have to be paid if the student is not earning.

Research (Belfield et al, 2017; Crawford and Jin, 2014) has shown the UK's HE finance system to be progressive. Higher earning graduates repay more than lower earners, and because of the repayment threshold, the lowest earning graduates are protected.

The income-contingent nature of the system is particularly relevant for students who may be concerned that their degree is not "worth the cost" – graduates who are unlucky in the labour market are protected from this risk, since they won't have to repay a penny if they are not earning above the threshold, and if they do start to earn more, they will only pay a small proportion of earnings over the threshold. By contrast, in the US system graduates must repay their loans with fixed monthly repayments over a fixed period of time regardless of the graduate's income (known as "mortgage style loans"). This system creates obvious financial difficulties for low earners, particularly early in their careers when earnings are low. This is described by Barr et al (2019) who point out that US mortgage-type loans can create "financial difficulties for a significant minority of US borrowers."

It's also important to note that because of these features, refunding all or part of tuition fees (as many have campaigned for recently) will do nothing to help low earning graduates. Lower earners will not repay their loans within 30 years whether or not tuition fees are reim-

-bursed, so their repayments would not change.

As well as the insurance against low earning that is provided by the UK's income contingent loans system, students are also eligible for generous loans for living costs. There is a wealth of research showing that offering a substantial aid package, as is the case in the UK, may encourage students into HE. Several quasi-experimental papers have shown that student aid is positively related to participation (e.g. Dynarski (2003), Seftor and Turner (2002) Dearden et al (2014), Neilsen et al (2010), Deming and Dynarski, 2010). This tends to focus on grant aid rather than loan aid. Research on the impact of tuition fees is more scarce, though there is some evidence that tuition fees have an impact on participation (e.g. Kane, 1995), however, this research is limited to upfront fees, and tells us little about fees that are covered by an income contingent loan. There is also holistic evidence from Murphy et al (2020) showing that the UK's move from a low fee system to a high fee-high aid system did not harm access for low-income students.

2. What is the likely return on investment in HE?

The link between education and wages has been studied by economists for many years (Card, 1999), and a positive link between HE and wages is now well established (e.g. Blundell et al., 2005). For example, for the UK, Walker and Zhu (2013) demonstrate a lifetime return of around £168,000 for men and £252,000 for females.

However, attention has turned more recently to identifying how such returns might vary according to the institution attended and subject studied (Altonji et al., 2016). This is an empirical challenge since students select into institutions and subjects non-randomly for reasons that may also impact their future earnings – for example, more ambitious students may study certain subjects, but may also go on to do well in the labour market due to their ambitious nature, rather than the subject they studied. A growing number of causal papers have dealt

with this issue, however, and the consensus seems to be that choice of subject is more important than the university attended in determining wages.

Looking first at returns by degree subject, Kirkoboen, Leuven, and Mogstad (2016) in Norway, and Britton et al (2016) in the UK document huge variation in returns across field of study, but show that particular subjects, such as science, economics and law, provide greater returns than the arts. In terms of returns to institution, Dale and Kreuger (2009; 2014) find mixed results for the role of college quality in terms of earnings, providing further evidence that subject is more important for earnings than institution.

More recent advances in the availability of linked administrative data has allowed researchers to examine the impact of particular courses (i.e. subject and institution) on earnings. Belfield et al (2018) use detailed tax records and student loan data to this end. Though not definitively causal their estimates confirm variation in earnings by subject (with medicine and economics appearing to offer the highest returns) and institution, though subject seems to matter more in the labour market. Importantly, they also reveal wide variation in returns for particular courses. For example, on average the return to a Cambridge degree is high for both women and men. But studying English at Cambridge has an average return 4% below the average degree for women and studying creative arts has a return 26% below the average degree for men. As described in Section 1, however, students in this situation are protected against the risk of unmanageable repayment burdens; anyone earning below the £25,000 threshold will not have to repay.

Leighton and Speer (2020) also demonstrate that certain subjects command higher returns, this time by examining the specificity of the subject. Their US study finds that more specific college majors (e.g. education and nursing) typically pay off the most (and especially early in one's career), while more general majors pay less at every age.

But are students aware of the differences in returns by subject and institution? Evidence from Campbell et al (2020) shows that those from low-income backgrounds enrol in courses with lower returns than those from high SES backgrounds even when they have the same prior attainment. This is driven by institution; even looking at students who enrol in the same subject, those from poor backgrounds tend to enrol in universities that attract lower returns. Conversely, their research also finds that women enrol in courses that are lower returns than men, but this is driven by subject of study.

Moreover, research has shown that, even when students attend the same university and study the same subject, differentials emerge in who benefits from HE. Crawford et al (2016) highlight earnings differentials between graduates from richer and poorer families, even among those with similar degree attainment and HE institution. Similarly, Britton et al (2016) show that, after controlling for institution attended and subject chosen, students from higher income families have median earnings around 10% higher than those from lower income families. Findings from Gregg et al (2019) confirm this, showing that among those with the same educational attainment, there is still a strong association between their earnings and parental income.

The impact of COVID-19 on returns

Of course, the pandemic is likely to severely impact how students will fare in the labour market. As outlined in Anders and Macmillan (2020), graduates entering the labour market during a recession are less likely to find work, and more likely to earn lower wages, and these effects can persist for many years. Recent IFS analysis (Johnson, 2020) highlighted that graduates have not been doing well in the labour market over recent years as it is - median graduate earnings fell between 2008-2013, before recovering in 2016 – but only to levels roughly similar (in real-terms) to those in the mid-1990s. The situation may have been exacerbated by the fact that the supply of graduates has increased in recent years. Those graduating over the next few years will be doing so in an extremely challenging envi-

ronment, which is likely to have repercussions for their earnings for many years to come.

We might also be concerned that graduates over the next few years may do so with different skills than their predecessors. In particular, the switch to online learning during the pandemic may have deprived students from building networks, which may be important for future employment (Macmillan et al, 2015), and online learning (whilst potentially under stress) may result in students graduating with lower levels of human capital than other forms of learning. There is little research, however, to properly inform these speculations.

Summary

Research suggests that, for the average young person, investment in higher education will pay off in the labour market. However, the subject of study and the institution attended may impact the type of payoff young people might hope to receive. More concerning, particularly in the post-covid world is the evidence that those from lower income backgrounds may still go on to earn less than those from more advantaged backgrounds, even when they have similar degrees.

While we cannot say how returns to higher education will change in the post-covid world, it is likely that graduating in a recession will have a detrimental effect on earnings of the covid cohorts. However, the UK's current system of income-contingent loans means that no student has to worry about being unable to repay their fee and maintenance loans if they are unable to secure a high paying job. This protection against the risk of low returns may be crucial over the coming years.

References

Altonji, J. and R. Blank (1999) Race and Gender in the Labor Market, in O. Ashenfelter and D. Card (eds.) *Handbook of Labor Economics*, North Holland.

Anders, J., & Macmillan, L. (2020). *The unequal scarring effects of a recession on young people's life chances* (No. 6). Centre for Ed-

-cation Policy and Equalising Opportunities, UCL Institute of Education.

Belfield, C., Britton, J., Dearden, L., & Van Der Erve, L. (2017). *Higher Education funding in England: past, present and options for the future*: IFS Briefing Note BN211.

Belfield, C., Britton, J., Buscha, F., Dearden, L., Dickson, M., Van Der Erve, L., Sibieta, L., Vignoles, A., Walker, I & Zhu, Y. (2018). *The relative labour market returns to different degrees*: Research report: June 2018.

Campbell, S., Macmillan, L., Murphy, R., & Wyness, G. (2020). *Matching in the Dark? Inequalities in student to degree match* (No. 20-01). Centre for Education Policy and Equalising Opportunities, UCL Institute of Education.

Card, D. (1999) The Causal Effect of Education on Earnings, in O. Ashenfelter and D. Card (eds.) (1999) *Handbook of Labor Economics*, North Holland.

Crawford and Jin (2014), 'Payback Time? Student Debt and Loan Repayments: What Will the 2012 Reforms Mean for Graduates?', *IFS Report R93*, Institute for Fiscal Studies

Crawford, C., Gregg, P., Macmillan, L., Vignoles, A., & Wyness, G. (2016). Higher education, career opportunities, and intergenerational inequality. *Oxford Review of Economic Policy*, 32(4), 553-575.

Dale, S. and A. Krueger (2002) Estimating the Payoff to Attending a More Selective College: An Application of Selection on Observables and Unobservables, *Quarterly Journal of Economics*, 117, 1491-1527.

Dale, S. and A. Krueger (2014) Estimating the Effects of College Characteristics over the Career Using Administrative Earnings Data, *Journal of Human Resources*, 49, 323-358

Dearden, L., Fitzsimons, E., & Wyness, G. (2014). Money for nothing: Estimating the impact of student aid on participation in higher education. *Economics of Education Review*, 43, 66-78.

Deming, D., & Dynarski, S. (2010). College aid. In *Targeting investments in children: Fight-*

ing poverty when resources are limited (pp. 283-302). University of Chicago Press.

Dynarski, S. M. (2003). Does aid matter? Measuring the effect of student aid on college attendance and completion. *American Economic Review*, 93(1), 279-288.

Gregg, P., Macmillan, L., & Vittori, C. (2019). Intergenerational income mobility: access to top jobs, the low-pay no-pay cycle and the role of education in a common framework. *Journal of Population Economics*, 32(2), 501-528.

Johnson, P, (2020), 'A bad time to graduate', IFS Observation, Institute for Fiscal Studies.

Kane, T. (1995) 'Rising Public College Tuition and College Entry: How Well Do Public Subsidies Promote Access to College?', National Bureau of Economic Research (NBER) Working Paper 5164.

Kirkoboen, L., E. Leuven and M. Mogstad (2016) Field of Study, Earnings, and Self-Selection, *Quarterly Journal of Economics*, 131, 1057-1111

Macmillan, L., Tyler, C., & Vignoles, A. (2015). Who gets the top jobs? The role of family background and networks in recent graduates' access to high-status professions. *Journal of Social Policy*, 44(3), 487-515.

Murphy, R., Scott-Clayton, J., & Wyness, G. (2019). The end of free college in England: Implications for enrolments, equity, and quality. *Economics of Education Review*, 71, 7-22.

Nielsen, H.S., T. Sorensen, C. Taber, (2010) 'Estimating the effect of student aid on college enrollment: Evidence from a government grant policy reform', *American Economic Journal: Economic Policy*, 2 (2), pp. 185-215

Seftor, N. S., & Turner, S. E. (2002). Back to school: Federal student aid policy and adult college enrollment. *Journal of Human Resources*, pp. 336-352.



Prepared by: Gill Wyness

Contact for further information:

Centre for Education Policy and Equalising Opportunities (CEPEO)

www.ucl.ac.uk/ioe/cepeo

email: cepeo@ucl.ac.uk

Date: November 2020