

in brief...

Are the top universities worth paying for?



With the introduction of tuition fees for undergraduates, the UK government accepted the principle that since graduates receive much of the benefit of their degrees, they should be asked to bear some of the cost. But are degrees from 'better' universities worth more than others? **Iftikhar Hussain, Sandra McNally and Shqiponja Telhaj** investigate.

From 2006, new UK undergraduates – 'freshers' – were asked to pay up to £3,000 in fees for each year of their degree. The tripling of tuition fees was politically contentious at the time. But for many backbench members of parliament, the key sticking point was not that universities were allowed to charge much more than before, but that the £3,000 a year limit represented a cap not a fixed rate. This established the principle that different universities could charge different fees.

In the event, only a handful of universities charged fees below the £3,000 cap. But if the limit were to be raised, there could be more variation in the fees charged, with more universities charging a lower fee than the maximum permitted. Indeed, this might make sense. After all, universities' costs vary: the more prestigious ones typically (but not always) pay higher salaries to their staff and may want to recoup more of their costs through raising the fees to the higher levels permitted.

But would this variation in fees be paralleled by a variation in the benefits that students get from different universities? For example, does going to a more prestigious and costly institution pay off in terms of its graduates receiving a higher salary on entering the labour market?

We know that the average starting salary of students from the Russell Group of 20 elite UK universities is higher than that for students from all other UK universities. But this could be because the Russell Group universities take higher calibre, more highly motivated students in the first place.

Can evidence from the United States help us here? Many US studies show that the relationship between university quality and graduate wages is positive, even after controlling for the high school grades (and therefore possibly the ability and drive) of each student on entry. Black and Smith (2006) show that the positive impact might even be understated, as the studies only use a single measure of university quality – students' average high school test scores.

But we should be careful about assuming that this applies in the UK. For one thing, similar studies find no effect

from the quality of US high schools on wages (as noted in Hanushek, 2003). This might be because US high schools operate in a less competitive market than US universities. Since UK universities operate in a more centralised, less competitive system than US universities, there might be little or no difference to a graduate's earnings from attending a prestigious university.

The principal difficulty with establishing whether university quality affects graduate salaries is that high-quality universities select (and are selected by) the best students. But if universities select students entirely on the basis of things that we can observe – such as their grades at GCSE and A-level – then we might be able to remove any bias in the results of our research by controlling for them appropriately.

To make sure that we fully capture those traits that we don't observe – such as ambition and effort – we also control for background family factors such as parents' education.

Our study is based on four cohorts of students: those that graduated in 1985, 1990, 1995 and 1999. The 1995 and 1999 cohorts were surveyed three and four years after graduation, respectively. These two cohorts are the most comparable since the surveys were deliberately designed to be similar.

The 1985 and 1990 cohorts were surveyed 11 and six years after leaving university, respectively. For both of these cohorts, we study their wages six years after graduation (the earlier cohort were asked to recall their wages six years after they graduated). The differences between the cohorts mean that we have to be careful about saying that the 'returns' to studying at different universities have changed over time.

One difficulty for the research is measuring the quality of an institution. A single measure is likely to be inaccurate, as quality can be demonstrated in different ways.

Going to an 'elite university' (in the top quartile of quality) rather than a university in the bottom quartile increases graduate pay by 10-16%.

Consequently, we use a single composite measure that combines research quality, the faculty-student ratio, expenditure per student, the A-level scores of incoming students and the dropout rate.

The results of our analysis suggest that there is a significant premium to attending a high-quality university over an average university in terms of the wages that graduates can command in the labour market. This implies that even if two graduates have the same A-level grades and family background and studied the same degree subject, they will earn different wages if they went to different universities. The graduate from the more prestigious university will, on average, earn more.

Specifically, an increase of one standard deviation in university quality leads to a roughly 6% increase in graduate wages. To put this another way, a student who goes to a university that is in the second highest quartile (in terms of quality) can expect to earn 5-7% more than a student with the same parental background and A-levels who goes to a university in the bottom quartile of quality.

There is also evidence that students who go to the very best universities can benefit even more: our results suggest that there may be increasing returns to quality. A student who attends a university in the top quartile of quality may earn 10-16% more than a student who attends a university in the bottom quartile, depending on the measure of quality used.

Our results indicate that students who go to a top university do benefit more from their degrees than students who go to universities of lesser quality. As it turns out, our estimates for the 'returns to quality' are similar to those found by Black and Smith (2006) for the United States, as well as those found by Conlon and Chevalier (2003) for the premium for attending a Russell Group university in the UK.

As far as we can tell, the returns to going to a better quality university have increased over time. This may reflect the large increase in the number of universities in 1992. But because our samples differ so much between the first two cohorts and the second two, we cannot be certain about this.

Over a lifetime in the labour market, going to a university of higher quality can make a big difference to total income. The average annual earnings of graduates from the 1999 cohort were £22,828 in 2003 (four years after graduation). If we assume that the returns to quality are 6% of this amount and that this stays constant in absolute terms over the total time in the labour market, this is worth in total £35,207 (assuming 25 years in the labour market and using a discount rate of 3.5%). Since it is likely that the premium to going to a higher quality institution increases over time, this may be an underestimate.

A degree from a top university is worth more, but a degree from any university still pays off in terms of higher earnings

Such evidence suggests that there is some justice in requiring graduates to contribute to the cost of their university education, and in allowing different universities to charge different fees. That said, we should be clear that although there are increased average returns to graduates of higher quality institutions, these are still small in comparison with the overall value of higher education.

Blundell et al (2005) find that the average returns to higher education are 48% (of earnings) in comparison with leaving school at age 16 with no qualifications. If we translate this into lifetime earnings in the same (very rough) way, this amounts to a £281,594 difference between a graduate and a school-leaver. So we can see that encouraging more people to go into higher education should still be the major policy priority.

This article summarises 'University Quality and Graduate Wages in the UK' by Iftikhar Hussain, Sandra McNally and Shqiponja Telhaj, Centre for the Economics of Education Discussion Paper No. 99 (forthcoming). The study was funded by the Economic and Social Research Council through its Teaching and Learning research programme.

Iftikhar Hussain is a research economist in CEP's education and skills programme. **Sandra McNally** is director of CEP's education and skills programme. **Shqiponja Telhaj** is a lecturer in economics at the University of Sussex and a research economist in CEP's education and skills programme.

Further reading

Dan Black and Jeffrey Smith (2006) 'Estimating Returns to College Quality with Multiple Proxies for Quality', *Journal of Labor Economics* 24(3): 701-28.

Richard Blundell, Lorraine Dearden and Barbara Sianesi (2005) 'Measuring the Returns to Education', in *What's the Good of Education? The Economics of Education in the UK* edited by Stephen Machin and Anna Vignoles, Princeton University Press.

Gavan Conlon and Arnaud Chevalier (2003) 'Does it Pay to Attend a Prestigious University?', Centre for the Economics of Education Discussion Paper No. 33 (<http://cee.lse.ac.uk/cee%20dps/ceedp33.pdf>).

Eric Hanushek (2003) 'The Failure of Input-based Schooling Policies', *Economic Journal* 113: F64-98.