Are we spending too much or too little on Higher Education?

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Since the 1960's there has been a drive to increase participation in Higher Education (HE). In 2010 the figure stood at 45% of 18-30 year olds having a graduate education (Browne, 2010, pp.2). This equates to 1.8 million students engaged in some form of HE in the UK at the moment. The departmental budget for education in 2010 is set at £57.6 billion, some 15.2% of the annual budget (Budget, 2010, pp.43). The HE share accounts for £7.4 billion, which amounts to 12.8% of the education budget or 1.9% of overall annual expenditure (Garner, 2010).

This short essay will address the question 'are we spending too much or too little on HE? Aiming to present a balanced argument, considering both individuals and together as a society and concluding with the author's view. This question has added significance given the economic context in which it has been asked. In October 2010 the coalition government conducted a wide-ranging public spending review in order to tackle the £971 billion budget deficit, which amounts to some 65.2% of gross domestic product (GDP). Net borrowing 2010/11 is expected to surpass £149 billion, which amounts to 10.1% of GDP. Furthermore, debt service charges 2010/11 are estimated at £43 billion (ONS, 2010) or 2.9% of GDP. Higher education has been identified as one area where potential cost savings could be made.

Economic theory suggests individuals invest in education, in the expectation they can then sell their labour at a higher wage. Rational individuals would therefore invest in additional years of education until the present value of the investment approaches zero. How much education an individual decides to partake in is down to individual specific factors, for example the estimated repayment period, psychic costs[1] and the rate at which individuals discount future returns amongst other factors. Put simply the discounted increase in income over the remainder of the individual's lifespan minus the costs both direct and indirect must be positive.

Potentially, this explanation of participation may not be suitable for all. Some may choose to participate in HE for the experience or simply as a matter of course in response to parental pressure. Participation in the first respect would however be optimal as these students clearly value the experience enough to incur the cost of a graduate education. Potentially, however the second explanation would not as participation has become something of a social norm. Therefore it is

[1] Psychic costs refer determine the individual costs of participating in education.

reasonable to assume that for at least some, participation may lead to a worst outcome and subsequently these individuals would have been better off entering the world of work.

Participation based on greater expected returns requires that the individuals have a clear expectation of returns, limited barriers to entry with respect to financing a graduate education and can accurately predict outcomes. Unless these things hold or measures are inadequate to correct market failings, participation may be less than optimal. The following sections will deliberate on some of these issues.

It is widely known that the collage wage gap[2] is considerable and varies across countries. Average returns[3] to HE in the UK and Ireland are higher than in Scandinavian countries, with the remainder of European countries falling in between (Psacharopoulos, 2009, pp.13-14). It is estimated that the net pecuniary benefit of having a degree in the UK is in the region of £160,000 (in addition to substantial non-pecuniary benefits) over the individual's lifetime compared to a similarly qualified individual (Universities UK, 2007, pp.1). Non-pecuniary benefits include greater social mobility, less risk of unemployment and shorter spells therein amongst others.

The UK currently operates a dual finance system with regard to financing HE. Students must, however, contribute to the cost of their education in the form of a tuition fee. HE is also free at the point of use, as all students are entitled to a tuition fee loan payable direct to the institution and a maintenance loan provided by their local education authority (LEA). Students can also apply for means tested bursaries and grants to supplement their loans. Furthermore, until recently contributions towards the repayment of loans did not begin until the graduate has an annual income of £14,000 or more. Any debt which remains after 25 years is written off.

In this way is it too much to ask, given the budget deficit, to raise tuition fees so that the individual who accrues the benefit to bear more of the cost? With this in mind the tuition fee cap is to raise from an inflation-adjusted £3,000 to £9,000, beginning in the academic year 2012/13. This rise has also been coupled with an increase in the income fresh hold to £21,000 and an extension of the repayment period to 30 years. Institutions can however only charge the upper end of the cap by agreeing a new access agreement with the Office of Fair Access (OFFA). In total, two thirds of universities have signalled their intent to charge the upper cap of £9,000 per year, with very few opting to charge less than £8,000 (BBC News, 2011).

[2] The difference in earnings identically qualified individuals experience where one participates in HE and the other does not.

[3]Refers to the mean contribution HE has to lifetime earnings. It is however important to bear in mind the nature of the income distribution. As a few very-high earners skew the mean distribution higher. The actually modal contribution is likely to be lower than this figure suggests.

The aim of the cap rise was to create a market for fees where institutions charge different amounts depending on their prestige[4]. On the assumption that less prestigious institutions will be unlikely to be able to justify charging the upper bounds. Coincidently, these institutions usually have higher intakes of poorer and less socio-economically advantaged graduates. Institutions charging lower fees by definition have less funding available to put into teaching, reducing quality and enforcing socio-economic inequality into later life.

In a time of austerity the Government faces a trade-off between creating a market for fees vs. control of the public sector finances. The increase in private contribution to HE coincides with a subsequent withdrawal of public funding. Institutions need to charge at least £7,000 per year in order to keep funding constant and replace the revenue lost in HE budget cuts (Bekhradnia & Thompson, 2010, pp.10) which is particularly acute amongst the less nationally strategic disciplines such as the Arts and Humanities. These proposals on the institutional level are likely to lead to one of two things or a mixture of both. First, consolidation of operations and focus away from HEFCE-cash-poor subjects. Second, charge at least £7,000 per year in fees and negotiate a new 'tougher' access agreement with the Office of Fair Access (OFFA).

Clearly these proposals did not work as intended. One potential reason why this result occurred is related to the nature of the good education and the universities pricing decision. Education is clearly not a normal good[5] and people do not respond to a price decrease as they would for the majority of other purchases. Consider two universities (c) and (d). If d charges a price that is lower than (c) it is effectively signalling to the market that it is of a lower quality. Employers knowing this will assume that graduates from this institution are of a lower quality, disadvantaging that applicant as opposed to (c). If this disadvantage is significant and negative In the absence of up-front costs and credit restraints graduates if offered the choice would rationally elect to go to the high-charging institution, paying the difference in fees from the increase in earning potential. This institutional effect is well documented in the education literature and is likely to hold regardless of whether institutions set the same fees with degrees from highly selective universities being considered of a higher quality than those from less selective institutions.

The timing of this increase is however unfortunate with declining graduate prospects, increasing graduate unemployment and lower disposable incomes; particularly with respect to the poorest in society. One claim that has been advocated in support of the tuition fee increase is that the increase in private contribution will reduce the aggregate public sector contribution. It is however

[4] Prestige is based on reputation and quality of research.

[5] Education is considered by economists as a merit good and is associated with positive externalities. Price in this instance may be considered as a indication of quality.

questionable whether this claim holds. In the short-run the provision of bigger loans will involve a greater initial outlay for the public sector which will continue throughout this Parliament and into the next. In the long-run given the provision of larger loans, the increase in earning threshold and the increase in the payoff period it is ambiguous whether the new proposals will lead to a total reduction in the public contribution to HE (Bekhradnia & Thompson, 2010, pp.3).

A short-term consequence of the fee rise was a marked rise in the number of applications to higher education institutions (HEIs) for the academic year 2010/11 with much of the increase in demand from those applicants denied a place last autumn (Vasagar, 2011). A rise in fees to £7,000 is expected to decrease demand for HE by approximately 9% from wealthier teenagers (Coughlan, 2010). However the same survey also finds that amongst the poorest 14% of applicants would be deterred from going. This is in spite of new access agreements being drawn up for universities intending to charge more than £6,000 a year and other measures to safeguard participation by these groups. Furthermore, the true decrease is likely to be more than this given that two thirds of universities have so far announced plans to charge in the upper cap of £9,000 per year.

The benefits of a graduate education do not solely attribute to the individual but also society in general. Social benefits of HE include better civic/judicial institutions, lower public welfare/prison costs, greater social capital, new ideas and applications of R&D amongst other benefits. The quantifiable benefits are estimated between £8,000 - £9,000 annually although the total is likely to be substantially higher. Social benefits are estimated to account for 54 – 69% of the total benefits attributable to HE (McMahon, 2009, pp.247-252). However, individuals do not account for the social benefits in making their educational investment decision. Thus left to market forces individuals would systematically under-invest in education to the detriment of society. The optimal pricing strategy with respect to the individual should therefore reflect the private cost/benefit component with a state subsidy accounting for the remainder.

Deviating from the optimal pricing strategy is inefficient from the perspective of society. Pricing education too highly discourages participation below the optimum level resulting in a loss to the individuals and society as a whole and vice versa. However, over subsidizing HE puts undue pressure on the public purse and creates greater distortionary effects due to excessive taxation. There are also knock on effects to the individuals. Over educated employees in the workplace achieve on average a lower economic payoff than individuals who fully utilise their education (McGuinness, 2006, pp.414). This may in part have led to the growing pay disparity of semi-skilled occupations such as plumbers and electricians as opposed to skilled occupations receiving a higher average market return on their skills as opposed to skilled occupations which require a significantly higher investment in human capital.

The human capital literature also points to an acute difference between pre-university earning expectations and their post-university outcome, with potential applicants often systematically overvaluing their initial earning potential (Hill, 2005). However, the significance of this is reduced when we consider repayment occurs over a far longer period, than the initial wage with graduate earning profiles outstripping similarly qualified individuals without a graduate diploma (Dearden et al., 2006, pp.2). Furthermore, the withdrawal of funding from access initiatives and AimHigher outreach programs in favour of other initiatives is only likely to compound informational asymmetries, therefore making it harder for graduates to access whether a graduate education is a worthwhile investment, if this is indeed a primary motivator. This is especially significant for those in low-participation neighbourhoods and or first-generation entrants.

The fee rise is, however, likely to leave the UK HE international student sector unaffected. The UK HE sector attracts a high growing proportion of international students who pay a premium to study and live in the UK. International student fees are often in excess of four times what domestic and EU students pay to study which is estimated to contribute £5.5 billion annually to national income (Curtis et al., 2007, pp.3). London School of Economics (LSE) is one institution that has announced its intent to leave international student fees at their current levels.

The socio-economic background of the individuals is an important moral consideration and should be given further thought. Students from poorer and less socio-economically advantaged backgrounds have lower participation rates in HE. Figures show that only 14% of students 19/20 eligible for Free School Meals (FSM) attend an HEI compared to 33% of those not eligible (Chowdry et al., 2010, pp.2). Poorer students are also statistically more likely to attend less prestigious institutions. With the privately educated accounting for much of this difference in HE participation rates, more so in the most selective institutions and highly-professional occupations such as high court judges. (Sutton Trust, 2010, pp.2). However much of this disparity disappears after controlling for prior educational attainment (TLRP, 2008, pp.13).

This difference in participation is the result of an array of disadvantages which face poorer and less socio-economically advantaged students as opposed to their more advantaged peers. One potential explanation of this is that the perception of financial risk which may be viewed differently by individuals from different backgrounds; poorer students may therefore require a greater rate of return to justify the investment. This may explain why poorer and less socio-economically advantaged students disproportionally engage in subjects that offer the greatest return such as Law and Mathematics to compensate (Chowdry et al., 2008, pp.iii). This trend is only likely to be exaggerated with an increase in fees making the Arts & Humanity subjects increasingly reserved for

the richer in society.

Financial pressures also mean that on average these students attend HE later in their lives, are more likely to involuntarily drop out of HE due to financial reasons and are less able to exploit employment enhancing work experience (Powdthavee & Vignoles, 2009, pp.17-20). Term time work inevitably means these students sacrifice part of the 'university experience'. Such students are also more likely to lack a financial cushion post university, spend less time searching for jobs and accepting poorer paid positions. There is growing evidence that this pay disparity often remains with these graduates throughout their lives damaging their lifetime earning potential (Brinkley & Fauth, 2006, pp.33-35). Again however much of this gap disappears when controlling for prior attainment. With the evidence suggesting this gap occurs earlier in the individual's academic life. Clearly, more needs to be done to address this.

A successful marginal policy employed by the previous administration with regard to widening participation was the payment of the Educational Maintenance Allowance (EMA). This transfer was designed to cover the financial post-compulsory education burden on families with children wishing to continue their studies. This measure was based upon the finding that students who continue their education (post-compulsory) FE are statistically more likely to engage in HE. However, this is to be replaced with the smaller Learner Support Fund (LSP), as evidence has emerged the payment was being used for purposes other than those it was intended to cover. It is hoped that the new measure will be better targeted.

The general increase in graduates over the last half century have led to some concerns, one concern shared by the media is that there are now simply too many students engage in HE. This has led to a public sentiment that areas around HE institutions have suffered a detrimental effect due to an increase of the student population. A bi-product of which is greater demand for rental accommodation reflected by rising rental prices. High concentrations of students in areas have led to a rise in the number of Anti Social Behaviour Orders (ASBOs) (North, 2005, pp.19) handed out to students by the local constabularies. Positively, students contribute much to society as many of whom are active in the voluntary sector, engaging in work experience which benefits the community and business alike.

Regrettably, opportunities to engage in this type of often employment enhancing voluntary work is not equal across the social classes, with poorer and less socio-economically advantaged students often being unable to participate as a result of financial constraints. Government action announced in the government's social mobility strategy has been welcomed in this area requiring businesses to be more transparent. Awarding these opportunities based on merit as opposed to 'who you know',

increasing advertisements directly to local schools as opposed to word of mouth and also requiring businesses to pay the minimum wage for opportunities or 'out-of-pocket-expenses' whichever is the more appropriate.

A further concern by graduates is that there are now simply too many graduates. On the face of it these fears are justified as graduate unemployment currently stands at 8.9% in 2009/10. This is a record high and is expected to surpass 9% for the class of 2011 (Shepherd, 2010). With 78% of employers insisting on a 2:1 degree, 69 applications for every graduate job, 6.9% fewer vacancies than in the previous year and graduate starting salaries remaining fixed at £25,000 per annum since 2008, the outlook looks bleak for the class of 2011 (AGR, 2010). Furthermore, the employment figures themselves are misrepresentative given the proportion of 'employed' graduates who are accepting jobs which pay the same or a little more than the ones they could have obtained before making the expensive investment in HE.

These graduate employment figures are however presented in the backdrop of the recent global downturn. So far graduate labour demand has remained robust as employers have been reluctant to let go of their newest graduate recruits, but if the recession turns out to be prolonged and the recovery slow employers may have little choice but to let these graduates go. Positively, recent UK service industry statistics show demand is once again picking up pace, which is good news for graduates (Birchall, 2011). Overall it is unclear how the pace of the economic recovery will react to the planned austerity measures; the worst may still be yet to come.

In addition to the economic circumstance and the lower number of graduate vacancies employers have also raised their expectations due to grade inflation which no doubt has prompted the introduction of the new A* grade at A-Level and calls at undergraduate level for a new 1st* to distinguish the very best candidates. One criticism placed by employers at HEIs concerns skill mismatches, between what the graduate employers want and what graduates actually possess (McKillop, 2008). The increasing number of graduates also means that applicants have to distinguish themselves from the competition (in addition to previous academic attainment) by showing evidence of soft skills. Advantaging the better-off in society given the lack of equal available opportunities students have in engaging in employment enhancing activities, compounding inequality adding weight to the income-earnings disparity hypothesis (Langhorn, 2008).

The skills mismatch has lead to calls for closer integration between employers and HE institutions. One potential reason may be down to different priorities of current employers and students. In response institutions have called on employers to help foot the bill for their workers educations. This may be one option that would avoid costly tuition fee increases but may compromise academic

vigour. KPMG have begun offering to pay for undergraduate student's tuition fees with a guaranteed starting salary of £20,000 (Coughlan, 2011). It is yet unclear whether this trend will catch on. Academic independence has so far prevailed although it is likely that in future years with escalating fees there will be far more interaction between HEIs and employers.

To summarize this essay has laid out arguments relating to the question are we spending too much or too little on education specifically with regards to individuals and as society as a whole. The main results are a purely privately funded system would under invest in HE to the detriment of society. Therefore the optimal pricing strategy with respect to the individual and society should be shared in accordance with the costs/benefits attributable to each. The socio-economic status of students participating in HE is also an important moral consideration with opportunities not equally available to all. However the majority of this 'gap' can be explained by prior educational attainment calling for more intervention during the applicant's school years.

In conclusion, with reference to the arguments presented herein, there has been a tendency to overinvest in HE in recent years, by middle and upper-class families and a systematic underinvestment by the poorer and less socio-economically advantaged in society. Critically however more must be done to address the socio-economic gap in participation. There is a very real danger that the increase in the tuition fee cap may perpetuate inequality amongst the poorer and less socio-economically advantaged. Failure to address this will harm not only the individuals specifically but also the long-run growth prospects of the economy for which we are all a part.

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