

Higher education, the 'knowledge economy' and 'knowledge workers': does current education policy make sense?

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Introduction

The UK higher education (HE) system has undergone a major transformation over the past three decades from a system that catered for an elite group of entrants in the late 1960s and early 1970s to one that now aims to provide tertiary education to half the population of 18 year olds. At present, approximately 39 per cent of the 'typical' age cohort in the UK completes a 'full length first higher education course', a figure above the OECD average (OECD 2006: 2). This article examines recent evidence on the graduate labour market to consider whether or not the UK government is justified in focusing almost exclusively on the supply-side of the labour market (increasing the proportion of highly-qualified labour in the workforce) to ensure UK competitiveness in the global economy.

The economic rationale for higher education expansion

The promotion of HE participation by the current UK government is partly reflective of the view that investment in human capital and lifelong learning is the foundation for success in a global economy. This logic has played a critical role in the formation of policy over the last two decades whereby the state has taken an increasingly proactive role to encourage higher education institutions to provide an appropriately trained workforce. This perspective reflects a policy focus firmly on the supply-side of the labour market; an orientation that, at least partly, assumes that where supply leads, demand will follow. The shift from an elite to a mass higher education system is seen by policymakers as the principle mechanism by which to create a supply of potential 'knowledge' workers to fill the expanding number of 'high-skill' jobs in the economy and, in the process, stimulating demand for better jobs from employers, improving the quality of work itself and driving economic prosperity (Keep and Mayhew 2004).

There tends to be two ways of interpreting the labour market evidence that inform this policy trajectory. On one interpretation, occupational change projections and data on shifting demand skills offer irrefutable evidence of a shift towards a knowledge-intensive economy. Indeed, evidence shows that the contemporary workforce is increasingly comprised of professional knowledge-based occupations such as scientists, lawyers, engineers, managers, ICT specialists and all the employees who support these occupations. Moreover, Felstead *et al.* (2002) reported a sustained increase in the utilisation of skills in British workplaces over the 15 years from 1986 to 2001, a significant rise in employers' requirements for qualifications, and a rise in the proportion of degree-level jobs in the economy from 10 per cent in 1986 to 17 per cent in 2001.

This increased demand for highly-qualified workers is estimated to continue; occupational change projections from 2000 predicted a 30 per cent growth in professional jobs and 8 per cent growth in managerial jobs over the decade to 2010 (Wilson 2000). At the same time, projections suggest a continued decline in skilled craft/manual/unskilled work. The government White Paper on the future of higher education in 2003 suggests that 80 per cent of the 1.7m new jobs created by 2010 will be in occupations that normally recruit those with HE qualifications. The question appears, therefore, to be not whether we are producing too many graduates but whether we can produce enough to satisfy the demands of the labour market.

Others, however, contest this positive rhetoric and the extent to which the rapid growth in the supply of graduate-level labour is matched by a corresponding demand for their skills and knowledge. In particular there is considerable debate over the extent to which new job creation lies extensively in the knowledge-intensive sectors (such as ICT, advanced manufacturing and research and development) and requires an ever-expanding supply of generic graduate competencies. Critics of the government perspective (for example, Wolf 2002), point to evidence suggesting that during the course of the 1980s and early 1990s the vast majority of jobs created in Britain were low-skilled, low wage employment (for example, care assistants) and that there is insufficient sensitivity to the heterogeneity of job creation in the service sector to distinguish between 'Mcjobs' and 'iMacjobs'. Thompson (2004) suggests, therefore, that much of the populist management rhetoric advocating a new era dominated by high-skill employment is overly optimistic and based on insubstantial empirical evidence. This, he suggests, indicates that government policy to promote ever-increasing entry to higher education would appear to represent a significant gamble with the prospects of recent and future graduates.

The balance of supply and demand in the graduate labour market

The true test of the extent to which the government has got its supply and demand sums correct is the extent of the balance between supply and demand for graduate labour and, more importantly, the extent to which recent graduates are achieving appropriate employment in the years after graduation. It is worth stating here that, there is always likely to be at least marginal over-qualification in the economy because a certain proportion of people choose not to use the full extent of their qualifications. Even before the major expansion of higher education in the 1990s, researchers found a substantial level of over-qualification amongst UK graduates. Mason (2002: 453) argues, however, that over-educated graduates now represent a substantially larger proportion of the workforce than they did before the transition to mass higher education reflecting '*a supply-driven increase of non-mainstream graduate recruitment to relatively undemanding and low-paid clerical, sales, secretarial and other jobs alongside non-graduates*'.

Estimates of the extent of under-employment for graduates who attended higher education in the context of mass provision are, however, widely divergent depending on the use of different data and are subject to constantly shifting job requirements. Subsequently, estimates of under-employment over the last decade have ranged from between 20 per cent of graduates to almost half. At least part of the disagreement about the match between the supply and demand for graduate labour is fuelled by different interpretations of what constitutes graduate-appropriate employment. Under an elite system of higher education the distinction between graduate and non-graduate work was perhaps more clearly delineated.

However, following a period of rapid expansion there is less obvious demarcation. Purcell and Elias (2004) report that recent graduates do a wider range of jobs than graduates in the past, partly as a result of economic restructuring, technological change and changes in the labour supply. Pitcher and Purcell (1998) argue that it no longer makes sense to talk about a uniform graduate labour market and in sectors or organisations where changes in markets, product/service complexity and other demand factors have altered employer skills and labour requirements, employers are likely to have responded to the increased supply of graduate labour by creating new or modifying existing roles to make use of this more highly-skilled and educated labour force. A number of studies have highlighted the incidence of existing jobs/occupations that have been 'upgraded' as a result of changes in market context, albeit alongside a parallel trend for employers to recruit graduates into jobs previously held by non-graduates for which the requirements have not changed and which under-utilise skills or abilities of the role-holder. There is also evidence to suggest that graduates are able to 'grow' ostensibly non-graduate jobs and of graduates in apparently non-graduate jobs while reporting use of their degree skills and knowledge.

In order to understand the complexities of the contemporary graduate labour market and to reflect the greater heterogeneity of graduate occupations beyond a simple graduate/non-graduate dichotomy, Elias and Purcell (2004) have developed an alternative classification of graduate occupations (Table 1).

Table 1: SOC(HE): A classification of graduate occupations

Type of occupation	Description	Examples
<i>Traditional graduate occupations</i>	The established professions, for which, historically, the normal route has been via an undergraduate degree programme.	Solicitors, Medical practitioners HE, FE and secondary education teachers, Biological scientists/biochemists
<i>Modern graduate occupations</i>	The newer professions, particularly in management, IT and creative vocational areas, which graduates have been entering increasingly since educational expansion in the 1960s.	Directors, chief executives (major organisations), Software professionals, Primary school teachers, Authors/writers/journalists
<i>New graduate occupations</i>	Areas of employment to which graduates have increasingly been recruited in large numbers; mainly new administrative, technical and 'caring' occupations	Marketing and sales managers, Physiotherapists, occupational therapists, management accountants, welfare, housing, probation officers, Countryside/park rangers
<i>Niche graduate occupations</i>	Occupations where the majority of incumbents are not graduates, but within which there are stable or growing specialist <i>niches</i> which require higher education skills and knowledge.	Leisure and sports managers Hotel, accommodation managers Nurses, Midwives, Retail managers
<i>Non-graduate occupations</i>	Graduates are also found in jobs that are likely to constitute under-utilisation of their higher education skills and knowledge.	Sales assistants, Filing and record clerks, Routine laboratory testers, Debt, rent and cash collectors

SOURCE: Elias and Purcell (2004)

Using this classification, the authors report that *Traditional* graduate occupations account for less than 5 per cent of total employment in the UK economy and that this has changed little over the last two decades. In comparison, the proportion of employment in *Modern* and *New* graduate occupations expanded considerably between 1980 and 2000, estimating that the growth in potential graduate employment over this period has been approximately 3 million jobs.

On the basis of this classification, Purcell and Elias (2004) report that the expansion of higher education has not led to deterioration in employment opportunities for graduates and provided little evidence of over-supply of graduates. In a longitudinal study of graduate careers, surveying 1995 graduates seven years after the completion of their undergraduate studies, they found little evidence of widespread failure to find appropriate employment. Furthermore, whilst graduates were assimilated into appropriate jobs at different rates, depending upon the type of degree they studied, degree results and other factors, they found no evidence to suggest that this process was slowing down.

The skills literature also provides some support for a relative balance between the supply and demand for graduates. Felstead *et al.* (2002) reported an approximate balance between the supply of high level qualifications (level 4 or above) in the workforce and employers' utilisation of these qualifications across the economy, despite imbalances at other levels of qualification. In fact, employers wishing to recruit graduates with particular skills, for example numerical aptitude, continue to report skill shortages. Hogarth and Wilson (2004) indicate that the demand for highly-qualified employees grew at the end of the 20th century in tandem with the expansion of higher education provision and such growth is projected to continue. This positive picture, however, must be juxtaposed against those who argue that the balance of supply and demand for graduates is overstated and there is increasing under-employment among the graduate labour supply (Brynin 2002) and that the current emphasis on supply-side economic policy is insufficient to prompt widespread upskilling (Lloyd and Payne 2003).

Conclusion

Let me conclude with a slight shift of emphasis. The promotion of mass participation in higher education is inextricably linked in policy discourse to the message that individuals need to take greater personal responsibility for their own employability. Individual employability is promoted as the means by which to obtain and maintain high quality, high skill employment in an increasingly volatile and unpredictable labour market where careers paths are uncertain. However, as Brown & Hesketh (2004) stress, there is a duality to employability in that it has both an *absolute* (the skills, knowledge, credentials and experiences possessed by the individual) and a *relative* (the individual's standing compared to others in the labour market) dimension. As such, it is possible to be both employable and unemployed (or underemployed). Therefore, whilst increasing numbers of HE entrants are keeping up their side of the bargain, following policy advice and increasing their personal stock of marketable credentials, it remains to be seen whether, over the long-run, the promise of high levels of demand for such attributes will be forthcoming.

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