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Internal and External Incentives to Engage in Education and Training – a Framework for Analysing the Forces Acting on Individuals?

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Editor's Foreword

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Introduction

Much of SKOPE's research over the last decade has had two linked, underlying themes. First, that of complexity within the patterns of demand for, and the supply and usage of, skill. Second, the consequent requirement for more finely-grained, deep-seated and systemic approaches to research in order to map and then make sense of existing patterns of activity and outcome. We have also argued for the exercise of care in 'naming and framing' (Schon, 1987) both the nature and the causes of education and training (E&T) policy problems, lest an imprecise or careless definition of the issue(s) to be tackled leads to inappropriate and hence sub-optimal policy interventions (Keep and Mayhew, 1999).

In much the same way, we would now urge the need for a reconceptualisation of the issue of incentives and incentive structures as they impact upon individual actors when they are thinking about engaging and investing in learning. The contention of this paper is that without such a fresh approach the likelihood that policy interventions within the E&T system can produce the much desired step change in either the demand for or supply of skill are liable to be slender. A failure to generate a sufficiently holistic understanding of how incentives impact on decision making also hinders current attempts to boost achievement by students from lower socio-economic group backgrounds and improve social mobility.

What follows seeks to do two things. First, to offer a by no means complete overview of the extant literature on this topic. Second, to construct one potential typology for categorising and studying the genesis, impact and inter-relationships between the various forms of incentive that impact on individual decision making about investment in learning (both initial and continuing). Where possible, the consequences of different elements within this framework are explored, but, given the complexity and scale of the phenomena being dealt with here, the coverage is at best partial, and there is no intention to produce an all-embracing review. Some aspects of the incentives to engage in E&T are afforded greater attention than others. In part, this reflects the relative volume of extant research on the different facets of the topic. For example, given the impending raising of the learning age in England, more space is afforded to discussion about incentives as they specifically relate to young people than to adults, though many of the incentive categories and effects are shared and adult issues are not ignored. One

area that is not explored in any detail is incentives to learn within the individual workplace, in part because there are other studies that seek to fulfil this role (Evans et al, 2006; Felstead et al, 2009). The overall hope is that what follows should be viewed as a starting point for discussion and development, rather than as an attempt at providing the final word on the topic. If others can refine and elaborate, or produce a superior alternative to the framework being proposed here, then so much the better.

The Policy Problem and Existing Analytical Approaches

The levels of participation, engagement and the associated volume of achievement in learning (for both young people and some sections of the adult population) are a cause for concern for policy makers across the UK. Worries about current patterns of involvement and achievement in E&T stem, in large measure, from international comparisons that show the UK (and the four nations within the UK) generally trailing other developed countries on some measures and in some categories (see the Leitch Review, 2005 & 2006 for an example of this approach, and for a broader discussion of the utility of such approaches, Keep, 2008a). Leaving aside doubts about the underlying meaning that should be attached to these international league tables and their utility as the basis for policy and government action (see Keep, 2008a; Keep and Mayhew, 2004), it is clear that this form of international benchmarking has had a profound impact on UK E&T policies over the last 25 year period, and that, if anything, the force of such comparisons has grown within the context of wider debates about globalisation and international competitiveness (Keep, 2008a). Thus the UK and English Prime Minister, Gordon Brown, suggested:

> A generation ago, a British Prime Minister had to worry about a global arms race. Today a British Prime Minister has to worry about the global skills race… because the nation that shows it can bring out the best in all its people will be the greatest success story of the coming decades. So it is time for a wake up call for young people, employees and employers… that we now summon ourselves to a new national effort and mobilisation to win the new skills race. (Brown, 2008: 1)

In trying to boost participation in E&T, policy makers have sought to understand current patterns of activity through an analysis of the incentives facing different groups of individuals at different stages in their lives. Unfortunately, as discussed below, this

analysis has rested very heavily on narrow and often rather simplistic readings of the average wage premia associated with particular types and levels of qualification, and, insofar as it has tried to engage with non-wage returns to learning, has tended to adopt a fragmented and sequential approach, whereby narrowly-defined types of incentives are examined in isolation from one another. The policy responses predicated on this analysis have similarly been partial – tending to concentrate effort on isolated elements of the spectrum of incentives, while ignoring many others, particularly those relating to how skills and qualifications are really valued in the labour market (Keep, 2005).

Rate of return analyses

In recent times within policy circles one particular analytical framework for thinking about people's decisions to participate in learning has tended to predominate – namely a human capital approach centred upon rate of return (RoR) analyses. Over the last decade, there has been substantial interest, and a heavy investment of money and research resources, in RoR analyses as a means of gaining a better appreciation of the forces that impact on decisions about investment in skills. RoR has been used to gauge the financial incentives acting upon individuals when thinking about investing (time, energy and money) in pursuing a particular course of learning, and has also been seen as a proxy for the value that employers place upon skill and also for the productivity gains that additional skills are generating for employers (for an excellent exposition of the RoR approach and its utility, see Vignoles and Powdthavee, 2006).

For policy makers in England, the RoR has come to assume a dominant position as the analytical instrument of choice, providing the main (sometimes sole) substantive justification for major elements of skills policy. For example, the Leitch Review (2005 & 2006) deployed RoR, coupled with a relatively crude form of international benchmarking of qualification stocks, as its primary means of mapping and understanding the operation of the market for skills as it tried to establish a general direction for UK-wide E&T policy until the end of the second decade of the 21st century. The Department for Education and Skills (DfES) as was, and now the Department for Children, Schools and Families (DCSF), have been so taken with the value of the RoR approach that they have funded a major research centre (the Centre for the Economics of Education at the London School

of Economics) that has devoted the majority of its resources to producing ever more elaborate RoR analyses.

What are the key findings from this extensive body of work? The main results relevant to the issues this paper is concerned with are:

- Wage returns to acquiring qualifications rise with the level of qualification, so a Level 4 qualification produces a greater average percentage gain in wages than a Level 2 (Vignoles and Powdthavee, 2006).
- The wage returns to vocational qualifications are generally lower than those for academic qualifications at all levels (Vignoles and Powdthavee, 2006).
- The wage returns to different vocational qualifications at the same level can vary very significantly (Jenkins, Greenwood and Vignoles, 2007).
- RoR studies have confirmed that while having lower level vocational qualifications does increase an individual's likelihood of being employed, the wage premium may be either negligible or even negative, particularly for National Vocational Qualifications (NVQs) at Level 2 (Dearden et al, 2000; Dearden, McGranahan and Sianesi, 2004; McIntosh, 2004a & b; Vignoles and Powdthavee, 2006; Dickerson and Vignoles, 2007; Jenkins, Greenwood and Vignoles, 2007).
- For adult learners 'few types of qualification appear to have any significant impact on learning' (Wolf, Jenkins and Vignoles, 2006: 549).
- The overall pattern of returns is complex (Jenkins, Greenwood and Vignoles, 2007), being impacted upon by factors such as gender (Wolf, Jenkins and Vignoles, 2006), region and institutional pathway through which the award was gained (for example, NVQs achieved through apprenticeships are more valuable than those acquired via other routes – McIntosh, 2004b)

One of the difficulties that springs from this picture is that it undermines at least some of the basic assumptions of government E&T policy on higher levels of post-compulsory and adult participation in learning (Wolf, Jenkins and Vignoles, 2006), and thus leaves policy makers grubbing around for a basis upon which to fund further increases in the scale of E&T (Keep, 2005) – a point which will be returned to below. As a consequence, the English government has commissioned, using different data sets, a succession of RoR studies that have searched frantically for a sunnier story on the returns to vocational

qualifications, though largely without success (for examples, see Dearden, McGranahan and Sianesi, 2004; Jenkins, Greenwood and Vignoles, 2007; and Dickerson and Vignoles, 2007). The result of these efforts, from the point of view of prospective users of the research, is an ever more fine-grained, complex, and in some cases (on points of detail) contradictory set of results, the import of which it is exceedingly hard to communicate to potential users – young people; their parents; teachers; and information, advice and guidance practitioners.

The limitations of the RoR approach

RoR is plainly a valuable tool, and the data it generates is of great importance in trying to map and understand patterns of participation, but its position as the policy analytic of first (and often only) resort may be counter-productive. RoR has a number of weaknesses, not least its inability to gain much purchase on informal and uncertified forms of learning (which means it probably fails to engage with the bulk of adult learning in the workplace – Conlon and Moore, 2001; Felstead et al, 2005). It also relies on backward looking data – it tells us the wage effects that have been produced to date and may not always provide a reliable indicator of future returns (Vignoles and Powdthavee, 2006). Beyond these difficulties, there are a number of broader problems.

First, RoR is essentially a descriptive device – it shows us what happened in terms of the wage return (often average wage return) accruing to individuals on completion of a piece of certified learning, or the wage return that is associated with the possession of certain personal characteristics, aptitudes or abilities (e.g. cognitive abilities, skill in oral communication, etc.) (see for example, Carneiro, Crawford and Goodman, 2006). It does not necessarily tell us all that much about how the return is being generated, nor why it is the size that it is.

Second, RoR analysis usually has little if anything to say about the returns to skills relative to returns to other forms of investment. Thus, even judging the utility of a RoR approach within the fairly narrow bounds of financial incentives, it only covers part of the spectrum. The RoR model tends to assume that the decision about investment takes place in a vacuum and is a simple yes/no choice (Keep, Mayhew and Corney, 2002). In reality, both individuals and firms normally have limited sums of money available to them that might be spent on/invested in a variety of different products and services. Thus, even if

RoR are important in the decision taking process, what may matter most are the relative returns generated by different forms of investment.

For example, if a firm has £200,000 to spend/invest, it could, for example, allocate the money to boosting senior management pay (and thereby supposedly retain or attract a better class of manager), buy new plant, improve its buildings, undertake more intensive development of new products (R&D), boost its marketing budget in an attempt to attract more customers, or invest in the skills of its staff. The problem is that much of the skills research, and the vast bulk of skills policy, assumes that the choice is between investment in skills or doing nothing. Researchers with an interest in alternative recipient areas for potential investment (for example, R&D) proceed in a similar fashion – often producing parallel mono-causal perspectives.

For individuals, the money and time invested in acquiring a qualification may be weighed against the benefits/returns that might accrue from acquiring a holiday, or a new washing machine or plasma screen TV. The decisions need not be either/or, but plainly there will tend to be a hierarchy or order to the allocation of relatively scarce resources. Unfortunately, the traditional RoR literature has almost nothing to say on the returns to skills relative to those generated by other investments (for individuals these returns may of course not be material or monetary, but related to material comfort, a sense of wellbeing or personal status). It may be noted in passing, however, that if what we know about the RoR to some low level vocational qualifications (mainly NVQs) is correct, then at least until the recent credit crunch and the arrival of very low rates of interest, individuals would have secured a better RoR by investing any money that might have been expended on securing such qualifications in a savings account in a bank or building society.

Lastly, and for the purposes of this paper most importantly, the expected wage effects of skill acquisition are not the whole story, simply one part of a much wider spectrum of incentives that at any given time, for any given individual, will impact on decisions about skill acquisition. One of the great dangers with much of the work on RoR, not least as it has been used by policy makers, is that it can be deployed to support a unidimensional perspective and the assumption that the evidence on the lifetime wage effects of acquiring a particular form of certification is (or ought to be) either the prime,

or in many cases the only, influence on decision making about whether to invest in learning. As will be argued below, this is unlikely to be a particularly helpful starting point for either arriving at a good understanding of what is happening or devising policies that might change patterns of participation. It might be more sensible to think in terms of a matrix or multi-element set of incentives acting upon individuals at any given moment. As a result, it is possible to argue that RoR analyses, in the UK at least, are now starting to reach the limits of what they can, on their own, explain. RoR calculations have now been made at finer and finer degrees of disaggregation - for almost every level and type of different qualification, on a sectoral and occupational basis, and for different regions of the country and segments of the population (based on parental class, age, ethnicity, gender, etc.). It is not clear in what fresh direction this work can now progress.

In part, what follows is a plea to both academics and policy makers to look beyond the sometimes narrow perspective that a preoccupation with RoR offers and to try to integrate RoR into a wider, more comprehensive framework of incentives that act upon individuals' choices about investment in learning. In pursuit of this goal, this paper seeks to identify and survey the spectrum of incentives that act upon individuals as they try to make decisions about both initial and continuing learning.

Other perspectives

Besides the RoR approach, there are several other ways in which researchers and policy makers have tried to construct frameworks for understanding individuals' propensity to engage in E&T. Some of the more important of these are briefly outlined below.

Decision-making and course and career choice – attitudes and processes

There is a well-established and rich body of survey and case study material that examines the information gathering and decision-making processes that individual young people (and to a lesser extent adults) go through in order to arrive at choices about E&T participation and subsequent employment opportunities (see Park, 1994; Taylor and Spencer, 1994; Hodkinson, Sparkes and Hodkinson, 1996; Connor et al, 1999; Bloomer and Hodkinson, 2000; Ball, Maguire and Macrae, 2000; Miller, Kellie and Acutt, 2001; Reay et al, 2002; Brown, 2002; Lauer, 2002; Sachdev, Harries and Roberts, 2006;

Blenkinsop et al, 2006). The issue has been extensively studied by economists – for an excellent overview of their efforts, see Dalziel (2008) and Belzil (2007).

Some of these studies assume a human capital-based, rational choice approach to choice, while others follow Durkheim and Bourdieu in stressing the importance of social relationships in structuring action, and of a variety of constraints that may limit the ability or willingness of individuals to contemplate or follow particular pathways. For a useful critique of the human capital approach, see Rees et al (2006) and, for an overview of Scottish research, see Scottish Funding Council (2007a).

This body of research is valuable in that much of it illuminates the fact that the decision-making processes involved are frequently not of the simple, linear type that policy makers on occasion assume (Hodkinson, Sparkes and Hodkinson, 1996), and teases out the different pathways that are perceived to be available, as well as the barriers to learning that individuals see, how they process information and what helps shape preferences and choices. It also maps and ranks the different sources of information and influence (for example, parents, siblings, peer group, teachers and careers service). In some instances (e.g. EdComs, 2007 for young people and Chilvers, 2008 for adult learners) its proponents also offer attitudinal typologies or categories into which people contemplating participation in E&T can be placed. Given the nature of the approach, a considerable amount of attention is directed at issues to do with the quality, quantity and timeliness of the information, advice and guidance on careers and future E&T opportunities that are available to individuals (OECD, 2004a & b; Whittaker, Gallacher and Crosnan, 2004; Bimrose, 2006).

Barriers to engagement and learning

A significant volume of research has focused on perceived barriers that can reduce individual motivation, as well as actual barriers to accessing learning opportunities (for example, Newton et al, 2005a; City and Guilds, 2008). These structural and situational barriers include cost, lack of time and lack of adequate and relevant provision (NIACE, 2004).

In essence, this approach contains two strands. One centres on intrinsic, motivational barriers to learning. For example, Newton et al (2005a) focus on cultural, attitudinal and dispositional barriers. In this schema, cultural barriers are taken to be

social, gender or family norms; attitudinal barriers are concerned with perceptions of learning and the institutions that offer it; and dispositional barriers centre on issues of confidence, fear of failure and beliefs (such as those about being too old to learn). Survey evidence (Sargent and Aldridge, 2002; Snape et al, 2004) indicates that attitudes and preferences play a significant part in structuring decisions about participation (or lack thereof) in adult learning in the UK. Barriers such as lack of time or interest loomed large among non-learners.

The second strand of research places greater emphasis upon extrinsic factors, such as the quality, patterns and flexibility of provision, funding and student support (financial and pastoral), as well as employer encouragement to workers to learn (including support from managers to their staff) – see McBride et al, 2006; Hogarth et al, 2009. For a comprehensive review of both strands of this literature, see Employment Research Institute, forthcoming.

Cultural values, attitudes and aspirations

Another major school of thought, which is closely related to the first strand of research outlined above, centres on the ways in which cultural values – held by individuals but also social classes, ethnic groups and communities – shape aspirations, career choices and the propensity to pursue E&T as a means to realise these goals (Gibbons, 2002; Watts and Bridges, 2006; Gutman and Ackerman, 2008; Lupton and Kintrea, 2008). One branch of this approach targets the learning cultures within particular educational settings and the attitudes towards learning that they engender (see, for example, Hargreaves, 2004; James and Biesta, 2007; Coffield, 2008). It is a line of thought that has proved influential with the Cabinet Office in its work on social mobility (Cabinet Office Social Exclusion Task Force, 2008), and helped shape the recent white paper on social mobility and skill (H M Government, 2009).

These frameworks offer powerful insights that can contribute to understanding why people choose to engage in learning or not. In respect of the purposes of this paper, there are two key points to note. First, in marked contrast to the RoR approach, policy interpretations placed on this body of work do in some instances exhibit a propensity to downplay what might be termed the material underpinnings of culture, aspiration and choice. In particular, the structure of local labour markets in influencing attitudes and

aspirations is not always stressed and the economic drivers that often support attitudes and aspirations are on occasion perhaps underplayed when policy makers talk about policy interventions to alter aspiration (see below).

The second, and perhaps more crucial point, is that these analytical approaches all illustrate and underline the complexity and heterogeneity of the societal groupings that government policy is seeking to influence. Whether the subject of the research be NEETs (Sachdev, Harries and Roberts, 2006; Maguire et al, 2008a), young people in jobs without training (Maguire et al, 2008b), adults pursuing Level 2 qualifications (Tennant, Brown and O'Connor, 2005), or youngsters who leave full-time education at the earliest opportunity (EdComs, 2007), a central finding of the research is that within each of these policy-constructed collectivities, individuals arrive at their aspirations and readings of the opportunities available to them in very different ways and for very different reasons and that these dispersed choices take people on very different learning and career trajectories (Rees et al, 2006). This insight poses a major challenge within a policy environment that is structured around an often simplistic definition of 'problem groups', such as young people who are NEET, which are essentially made up of individuals who (for a very wide variety of reasons) are not doing what government policy expects or wants them to do. The response to such 'problem groups' is nationally-designed programmes and interventions and a search for policies that can simultaneously tackle the issues and needs of a widely varied set of recipients.

The next stage…

The research avenues reviewed above offer important insights into some of the motivations and processes whereby individuals choose to become engaged in E&T. If we now know a reasonable amount about choice processes and about how individuals conceptualise of and process information, and the barriers they perceive to learning, then a structured way of describing and thinking about the forces that might be motivating them towards one choice or another would also seem valuable. The question therefore arises of whether it is possible to refine, add to or improve upon these efforts, and move towards a more holistic analysis of the forces acting upon individuals that, married with research on barriers to learning, choice and attitude formation, could help guide policy in the design of more targeted interventions. There are already some pointers in the shape

of a small number of research studies that have assayed a more strongly integrative conceptual approach to mapping and where possible quantifying the factors impacting upon particular aspects of post-compulsory participation (see Feinstein, Duckworth and Sabates, 2004; McIntosh and Houghton, 2005; Rees et al, 2006; Wiseman, Roe and Hawkins, 2007; Dalziel, 2008).

The remainder of this paper does not attempt the very large task of providing a full-blown wider analytic framework. What it does try to do is sketch out one possible typology for trying to chart and understand incentive structures as they impact upon the perceptions, choices and actions of individuals that will allow a broader and more joined-up analysis. Such an approach, it will be argued, would be a helpful building block in creating a wider analytical framework and in supporting policies that were better able to align different incentives and to produce stronger synergies between them and the policy interventions being crafted to act upon decision making about E&T by individuals.

A Framework for Thinking about Incentives

The section that follows seeks to lay out the basic elements of such a framework and typology. In terms of structure, it opens with a review of how incentives are generated and the different types of incentives that can be created. It then explores the potentially positive and negative impacts that incentives can have upon individuals, followed by a discussion of the various dimensions of incentive coverage, strength and duration. The importance of grouping and complementarity among incentives is then examined, followed by the impact of complexity and uncertainty in the force of signals and effects incentives may have on different individuals. The issue of how incentive structures are socially constructed and mediated is briefly touched upon, and the section ends with two hypothetical individual 'learning lifecourse' histories, which are deployed to illustrate many of the issues touched upon in the preceding sections.

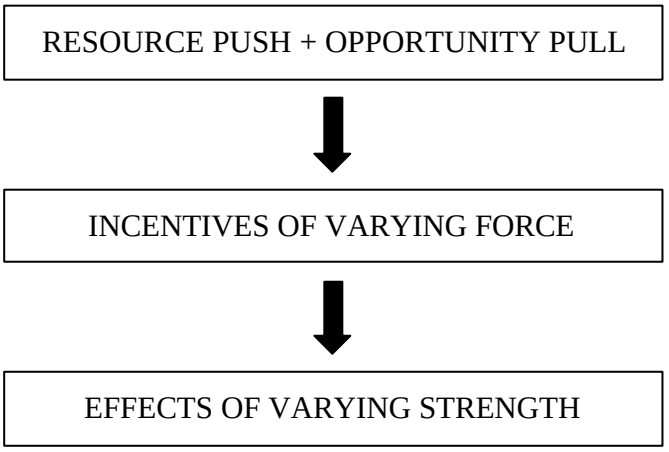
Incentive generation

The various incentives to invest (time, energy and money) in learning are generated through:

1. The 'pull' of opportunities, both to learn and to then utilise that learning, either for personal pleasure (intrinsic reward), to benefit others (altruistic reward), or for tangible gain through some form of paid employment.
2. The 'push' of resources, expectations and social relationships, which enable and sustain learning. These resources cover a range of tangible and intangible elements, including financial support to students (from whatever source(s)) and social - for example, well-educated parents who encourage the child to learn through support, exhortation and example; and provide ample opportunities through a supply of educational toys, visits to museums and books.

These push and pull factors will often conjoin (see below), and will singly or together give rise to incentives of varying strength that will in turn impact upon and motivate different individuals to act in different ways to varying degrees – see Figure 1.

Figure 1 – The Incentive Generation Sequence



We know that changes in the range and accessibility of learning opportunities (pull) and changes in the resource push of what the state will either partially or wholly fund, can have a profound and quite rapid impact on patterns of participation among adults. What is on offer in the publicly-funded sector largely determines what types and levels of formalised learning people can undertake, though private provision and wholly user-funded courses in publicly-supported institutions can of course still take place. Nevertheless, changes in the state funding and therefore the levels and patterns of

provision of adult non-vocational learning in English further education (as a result of the transfer of funding by the LSC from such courses to support the Train to Gain programme) are claimed to have resulted in the loss of 1.9 million publicly-subsidised course places and 1.4 million adult learners (Kingston, 2009).

The relationships between push and pull factors, the incentives they create and their effects on different groups and individuals are liable to be complex. If we try to take a more holistic approach to the range of incentives that act upon individuals, then the construction of some form of typology of the incentives seems a valuable starting point. The section that follows offers a first attempt at one possible model.

Incentive types

There are two broad categories of incentive acting on decisions in the E&T system and upon the choices made by individual students/trainees therein:

- *Type 1 (internal) Incentives* are generated inside the E&T system itself, and are chiefly designed to create and sustain positive attitudes towards the act of learning itself and to progression within each student or trainee. In other words, many Type 1 incentives produce, or are the result of, intrinsic rewards generated through the act of learning.
- *Type 2 (external) Incentives* are created in wider society and within the labour market, and the rewards they give rise to are external to the learning process itself.

The strength of the effects being induced will vary within and between Types 1 and 2. Wiseman, Roe and Hawkins (2008) offer a very useful overview of how extant research identifies and maps the different dimensions of Type 1 and 2 incentives.

In terms of example, the following illustrate the different forms that Type 1 and 2 incentives can take:

Examples of Type 1 (internal) Incentives

- Intrinsic interest and pleasure in learning and curriculum design and pedagogy fashioned to deliver and enhance this. For example, higher staying on rates in post-compulsory education by girls may be explained by the fact that they enjoyed school more than boys, 'and may be more willing to accept educational values' (EdComs, 2007: 4).

- Forms and methods of assessment that are designed to encourage further participation rather than to sort students or ration access to next level of learning (i.e. formative rather than summative assessment).
- Opportunities for progression to next stage of E&T that are relatively 'open' and are not tightly rationed.
- Institutional cultures within the E&T system's providers that nurture potential and celebrate achievement.

Examples of Type 2 (external) Incentives

- Wage returns/premia to particular types and levels of qualification
- Other benefits to particular higher status/higher qualification entry professions and occupations (e.g. intrinsic job interest, opportunities to travel, etc.).
- Career progression and promotion opportunities accessible within particular occupational labour markets/employers due to:
  a) achievement of threshold qualifications/patterns of skill acquisition that allow access to particular employers and the jobs they offer;
  b) participation in further learning and continuing professional development (CPD) (either funded by employer, individual or both).
- Social status attendant on particular qualifications, career pathways and the earnings they generate.
- Cultural expectations within society, or particular ethnic or class-based segments therein, concerning the value of learning and qualifications, and for young people the parental pressure to achieve that this in turn supports. The massive variance in academic participation and achievement levels between children from different non-white ethnic groups within the UK attests to the importance of this type of cultural incentive (EdComs, 2007; Wiseman, Roe and Hawkins, 2008).
- Labour market regulation, which makes acquisition of particular levels and types of qualification and learning experience a prerequisite for access to particular jobs/occupations (e.g. effective Licence to Practice regulation in countries such as Germany, Austria and Australia).

- For adult learners there are also a wide-ranging series of non-economic benefits that relate to satisfaction/enjoyment in family life and sporting, cultural, political and voluntary activities that can be gained through applying new skills, knowledge and expertise. As government policy has shifted more and more to concentrate solely on the economic benefits/incentives relating to adult learning, it has tended to lose sight of these other incentives. The lesson from adult learning schemes such as the Ford Motor Company EDAP scheme suggests that even for adults in relatively low-skilled manual jobs, learning opportunities that are non-work related can be extremely important motivators (Maguire,1997). As a recent Demos report noted (O'Leary and Oakley, 2008:26), 'many of our interviewees and the participants in our public engagement workshops saw learning as a way of broadening their horizons: many of their learning experiences – often informal – had been driven by curiosity rather than rational calculus about the economic returns of a qualification'. Moreover, there is some evidence (Miller, Kellie and Acutt, 2001: 219) that, 'individuals perceive vocational awards as being less able to fulfil these developmental criteria'.
- Insofar as individuals are aware of them, there are also a range of wider benefits to learning concerned with mental and physical well-being, engagement in civil society and the likelihood of being engaged in criminal activity.

As will be noted from these examples, Type 2 incentives can be straightforward economic incentives relating to monetary gain, but they can also be generated by and through family and other social relationships. Type 2 incentives also tend to be structurally embedded in and mediated through the fabric of society, the labour market and wider economic structures. This, coupled with the interaction of the economic and social dimensions, often makes Type 2 incentives relatively powerful compared to many Type 1 incentives.

Discussion of Type 1 and 2 Incentives

Since the educative process is what primarily interests educationalists, they have tended to focus the vast bulk of their attention on Type 1 incentives generated within the E&T system and on the huge amount of reform that over recent times has been designed, via

changes to curricula, pedagogy and qualifications and programmes of learning, to secure levels of incentive that deliver enhanced participation and achievement, particularly among those groups that are currently low achievers (see Delorenzi and Robinson (2005) for an overview of these interventions). Examples would include the new 14-19 Diplomas, junior apprenticeships and the use of the vocational route and further education to 're-motivate' and re-engage youngsters disaffected with school-based learning.

Policy makers also continue to place heavy reliance on the use of RoR calculations to various levels/types of qualification as the means to encourage participation in post-compulsory learning (National Skills Forum, 2006; Leitch Review, 2005 & 2006). There is a strong presumption that if actors were to become better acquainted with the existing evidence on monetary incentives, this would be sufficient to motivate them to invest far more heavily than has been the case hitherto, thereby producing the Leitch Review's desired 'step change' in investment in their skills – for further discussion of this policy approach, see below.

While financial incentives plainly do matter (see Spielhofer et al, 2006 on their importance to young people), overall these readings of the evidence that policy makers offer as reasons to continue in education and/or achieve more are often selective and partial. Indeed, given the wage returns on some lower level vocational awards it could be argued that current levels of 16-19 participation are actually higher than a rational response to the labour market incentives would dictate.

As will be discussed at greater length below, this long-standing enthusiasm by policy makers for 'making the case for training' in part reflects the implicit assumption that their interventions can have little or no direct impact on either the shape or scale of many Type 2 incentives, which are deemed immutable. They adopt this stance (Keep, 2005 & 2006) either because they can see no policy instrument that could change incentive levels or structures, or because they believe that those levers that might be available (for instance, a greater use of Licence to Practice regulation) are either politically untenable or would have adverse effects on competitiveness (see, for example, various contributors to National Skills Forum, 2006).

In recent times some policy makers have sought to square the circle by arguing that by changing Type 1 incentives they can ultimately create a sufficiently massive increase in skills supply that will in turn lead to a change in companies' product market strategies which will catapult the economy to a higher skills equilibrium, which in turn will increase demand for (and the rewards that accrue to) skills, thus creating a virtuous circle (see H M Treasury, 2002). How believable such a scenario really is, is open to question. It is possible to argue that, in general, the causality runs in the opposite direction – the structure of demand dictates levels of provision and the demand for learning (see Fevre, Gorard and Rees, 2001; Delorenzi and Robinson, 2005: 26-39; Keep, Mayhew and Payne, 2006). In any event, current beliefs about the limits of the possible in terms of direct measures to change Type 2 incentives help reinforce the concentration on ceaselessly trying to adjust and improve the operation of Type 1 incentives inside the E&T system – an area where policy makers feel comfortable with intervention (Keep, 2006).

The emergence of Type 1b subsidy-based incentives

Over the last decade, under the New Labour government, there has been an increasing reliance on public subsidy to act in the absence of or instead of Type 2 incentives generated by other actors. Examples here would include Educational Maintenance Allowances (EMAs), Minimum Training Allowances (MTAs), Activity Agreements (AAs) and Adult Learning Allowances. These schemes reflect the problem of weak incentives for those not following the Royal Route (A levels and entry into higher education) in terms of:

- wage structures, where nearly a quarter of all jobs (a third for female workers) are low paid (Lloyd, Mason and Mayhew, 2008), where demand for Level 3 skills is limited (Dickerson and Vignoles, 2007) and where access to more and more of the 'good' or even middling jobs now requires a degree;
- lack of labour market regulation;
- recruitment and selection policies and practices that for some jobs may only place a limited weight on qualifications and achievement in formalised learning (see below).

They also reflect the long-established patterns of access to adult training provided by employers (Leitch Review, 2005 & 2006).

We all love markets until we don't!

Enthusiasm for these subsidy-based incentives reflects an observable problem with English policy debates about E&T, in that many actors within the debate (most notably government and organisations that purport to represent employer views) endorse the notion of markets until the market delivers some outcome of which they disapprove, whereupon they suddenly become enthusiastic converts to the necessity of state subsidies in order to produce the effect that the market is not delivering. A classic example of this tendency is the ongoing debate about the number of students (at A level and within Higher Education) who are choosing to pursue Science, Engineering, Technology and Mathematics (STEM) subjects. In large measure the problem may be less one about overall volumes of STEM students, but rather their subsequent career choices (too many have been seen as opting not to become engineers or scientists and instead join banking or consultancy firms), but public debate has often ignored this point and developed into a moral panic about a 'shortage' of scientists and technologists, not least relative to stocks of STEM graduates in other economies (which have very different economic structures and labour markets). In response to this perceived 'shortage', the Confederation of British Industry (an organisation that generally dislikes state intervention and believes that markets are the most efficient allocative mechanism available) demand state-funded £3000 bursaries (estimated cost to the public purse £610 million per annum) to increase the number of STEM graduates (CBI, 2007: 21-22). The question might be posed, if these skills are so important to employers and they want 25 per cent of all HE students to be following STEM courses (CBI, 2007: 9), why do they not offer the bursaries and/or higher starting salaries to students with STEM degrees in order to bring about this desired outcome? The suspicion has to be that employers will accept more STEM graduates at no direct cost to themselves, but are not keen to spend their own money to raise the incentives on offer to students. This suggests that the market need for more STEM graduates may be either limited or absent.

The lure of subsidy-based approaches

For government, state subsidy as a solution to perceived weaknesses in existing Type 1 and 2 incentives is attractive because it is a lever that they can very readily pull – it does not require the active co-operation of any actors other than the state and the individual(s) or employer at which the subsidy is targeted, and it is assumed that subsidy will give rise to swift and positive results. These subsidy-based incentives – generated within the E&T system and funded by government, but designed to act in place of adequate Type 2 incentives - will hereafter be termed Type 1b incentives.

Such evidence as is available indicates that they may generate relatively weak effects (as well as being expensive on the public purse and carrying high levels of deadweight). Experience suggests that they may also only produce partial or ephemeral effects:

> **Partial** – EMAs do motivate a higher level of continued participation in education among target groups, but appear to result in relatively limited actual achievement of qualifications (Maguire and Thompson, 2006).
>
> **Ephemeral** – Train to Gain subsidies may boost employer engagement in and demand for adult training, but only for as long as the subsidy lasts. The likelihood of any sustained 'afterglow' in terms of altered organisational attitudes towards investment in training, additional in-company training capacity or heightened levels of employer investment in skill, is problematic (see Keep, 2008b; Ofsted, 2008).

Moreover, these subsidy-based interventions are often extremely complex to design and deliver (see Spielhofer et al, 2006: 2 on the relationship between EMAs and Programme Led Pathways), and do not always work to plan (see Maguire et al, 2008a, b & c). They can also give rise to forms of provision for particular client groups that can clash with (and potentially undermine) other, less heavily subsidised forms of E&T provision and generate high levels of deadweight (i.e. pay for something that employers would have supported if the subsidy had been absent) (Spielhofer et al, 2006:14-115; Maguire, et al, 2008a, b & c).

On the other hand, as Hillage et al (2008) demonstrate in respect of AA for the NEET group, in some instances subsidy-based allowances for young people may be one

of the few ways of re-engaging and retaining the participation of a portion (though by no means all) of this otherwise disengaged group of youngsters. Perhaps the key issue is about targeting Type 1b incentives at those who are both most in need and most receptive to this form of leverage.

Positive and negative effects from incentives

Type 1 and 2 incentives can also generate positive and negative effects. In some instances, the positive effects will be too weak to override other considerations or countervailing incentives. For instance, the wage returns to acquiring additional certification may be positive for an individual, but the work/life balance demands and the scarcity of 'free' time available to that individual (a frequently cited barrier to adult learning – see Wiseman, Roe and Hawkins, 2008; and DIUS, 2008) may produce a strong negative incentive to invest in learning. In other cases the effects are not weakly positive, but actively negative (e.g. bad memories of earlier attempts to learn) and can repel or dissuade individuals from pursuing further learning.

Across the range of incentives grouped under Types 1 and 2, each incentive will exhibit particular characteristics – they will vary in terms of their coverage of the population (and sub-sections thereof), their strength of impact and their duration. We explore these characteristics below.

Incentive coverage

Some incentives are universal and hence impact on either the entire population or upon all those wishing to pursue a particular course of learning. Others will be much more limited in their coverage. For instance, some of the Type 1 incentives associated with the intrinsic interest and motivation generated by an engaging pedagogy and a relevant curriculum will be dependent upon the particular course, syllabus and curriculum design of individual offerings in particular learning settings, and with the pedagogic style and competence of individual teachers and trainers. As Ofsted and Adult Learning Inspectorate (ALI) inspection reports have revealed, the same course and qualification can be offered in different settings with markedly different degrees of effectiveness and ability to engage the learner.

One of the key elements that mediates the coverage (and strength) of different incentives is individual ability. As Dalziel notes, reporting on work by Arcidiacono (2004):

> Individuals are assumed to be endowed with abilities (measured and unmeasured) relative to their peers and these abilities frame their education and employment choices, directly through their preferences for particular types of work and indirectly through expected earnings from different choices. As they learn more about their unmeasured abilities, the individuals may choose to change their educational choices. (Dalziel, 2008: 10)

To offer an extreme example, there may be relatively strong material (Type 2) incentives to become a professional footballer, but the vast majority of the population probably lack the physical ability necessary to pursue such a career option however much they might dream of doing so.

It is also important to acknowledge that access to many Type 1 and 2 incentives is in effect rationed or available on a differential basis. Thus those studying for a degree in a high status, Russell Group institution have a much greater chance of accessing the high status, high pay and reward employment in 'blue chip' graduate employers than do those in many post-1992 institutions of higher education (see Brown and Hesketh, 2004). In just the same way, those studying at Eton have access to facilities and learning opportunities (and the associated Type 1 incentives that these imply) that are simply unavailable to the vast bulk of pupils studying in inner-city state comprehensives. We should not be surprised at this. As Green, Poston and Germen (2006) illustrate, in unequal societies and labour markets, which are polarised (not least in terms of their reward structures), strong positive incentives (particularly of Type 2, but also of Type 1) will not be universal. Unequal social and economic structures will tend to generate unequally structured and distributed incentives to learn – a point we will return to below.

Finally, the strength of incentives will vary across space. Some local and regional labour markets offer very different patterns of opportunity (in terms of wages and the range of jobs on offer) from others (Green and Owen, 2006). As Wiseman, Roe and Hawkins observe (2008: 28) there have been numerous studies that have suggested that this situation feeds back into consequent patterns of choice about post-compulsory participation (see, for example, Gutman and Ackerman, 2008).

Incentive strength

The effect of some incentives will be absolute in that they generate an unavoidable requirement to follow a particular course of learning and/or acquire a particular qualification. Occupations where Licence to Practice (LtP) regulations are in place offer a good example. If one wishes to practice as a doctor or dentist, or pilot a commercial airliner, then the individual is required to study/train in order to qualify with the appropriate certification in order to enter the profession. In the labour markets of many OECD member states the degree of LtP regulation is higher than in the UK (e.g. Germany, Austria and Australia) and therefore the overall Type 2 incentives to acquiring qualifications in order to enter various occupations is greater than here. This fact may go a long way towards explaining why many OECD countries have a higher stock of qualifications at particular levels (usually Level 3) in their workforces than do we (Keep, 2005). In other words, this outcome may have little to do with underlying efficacy of their E&T systems or the Type 1 incentives they generate, it simply reflects the impact of stronger absolute Type 2 incentives acting upon individual choice and motivation to achieve.

The vast bulk of Type 1 and 2 incentives are not absolute – they operate with varying degrees of strength. As outlined above, thanks to the RoR literature we know that the financial incentives in terms of subsequent lifetime earnings that can be generated by achievement of different types and levels of qualification vary very significantly. For instance, the Type 2 incentives to participate in higher education vary enormously in scale, depending on degree subject, the class of degree ultimately obtained, and the nature and status of the institution at which the learning takes place – though much of the promotional literature aimed at prospective students tends to skirt round this fact and relies heavily on presenting average (financial) returns to participation – a point returned to below.

It is also worth noting that the strength of different forms of incentive are not necessarily immutable and may wax and wane over time depending upon policies around the provision and funding of E&T (see the example of the decline in adult learning triggered by the shift in adult FE funding to Train to Gain cited above), but also by the state of the economy and labour market (participation tends to rise in a recession,

particularly among young people) and via cultural change. On the latter point, one example would be the much-changed patterns of consumption (and associated expense) among young people over the last three decades. Recent research by the Association of Accounting Technicians (AAT) (2009) suggests that, allowing for inflation, today's teenager spends about 12 times as much per annum (on clothes, mobile phones, recreational activities) than did their counterpart in 1975. This means that the need for cash to fund an expected lifestyle (and its various accessories) is liable to loom larger in decision-making about post-compulsory pathways than was the case in earlier times. In part, the 'quiet revolution' in the youth labour market – from full-time employment or full-time education to part-time work combined with 'full' or part-time learning – has enabled the bulk of youngsters to accommodate their need for larger amounts of cash with continuing to pursue learning, but the AAT argue that, for some youngsters at least, the need for income means that apprenticeship-style training may be becoming more and more attractive relative to the full-time education route (AAT, 2009).

Talent allocation

Where the Type 2 incentives offered by a particular career or occupation are very strong, the tendency is for a large number of people to seek to train to enter it, even if the vast bulk must know that their chances of securing a training place and/or subsequent relevant employment are limited. For the individual, the chances are deemed worth taking. The examples of journalism, veterinary science and the performing arts illustrate this tendency at work. This means that the policy makers' oft-stated goal of 'matching' the supply of qualified 'personpower' to the number of related job openings is frequently doomed to fail (Keep, 2002 & 2006).

Moreover, incentive structures also determine the allocation of talent (however defined) across different parts of the labour market. Where talent is perceived to be available in finite quantities, those sectors and occupations that send weaker signals will tend to lose out. For this reason, very strong Type 2 incentives in a small number of sectors (such as finance, consultancy and commercial law), have in the recent past caused distortions in career preferences that may have benefited the sectors or occupations in question but not been entirely healthy for society or the economy as a whole. As the

Governor of the Bank of England remarked in respect of salaries within the financial services sector in the City of London:

> I do think it is rather unattractive that so many young people, when contemplating careers, look at the compensation packages available in the City and think that these dominate almost any other type of career. It's not a very attractive situation where such a high proportion of our talented young people naturally look at the City and think it is the only place to work in. It shouldn't be. It should be one of the places, but not the only one. (Seager and Wearden, 2008: 2)

The recent disasters in the financial sector and the widespread disapproval of high levels of reward for failure may, at least for the moment, mean an end to this problem.

The same incentive can also often impact with varying degrees of force on different people – for example, given individual personalities, abilities and preferences the Type 1 incentive of the enjoyment of learning will vary even among 14-year old classmates confronting the same lesson in geography, French or physical education. Some students will be extremely positively motivated by an experience that will be much less enjoyable or motivating to another.

Incentive duration

The length of time over which different incentives act upon individuals will also vary considerably. Thus the immediate impact of many Type 1 incentives is transitory, in that the enjoyment of learning is experienced in the act of learning at a particular moment, though of course their effects may be lasting – the memory of an exciting and pleasurable piece of learning can persist and can positively influence an individual's willingness to partake in learning in the future.

Many Type 2 incentives offer a lengthy payback period (in some cases the whole working life), but it is less clear whether their incentive effect is as lengthy – the vast bulk of formal learning is initial and tends to be done in a single block during childhood and adolescence. Perhaps the long-term incentive effects of upper end Type 2 incentives is that they offer both substantial reasons for, and opportunities to, engage in Continuing Professional Development (CPD) and learning to further career progression.

The relative strength of different incentives will also tend to vary across the lifecourse of the individual. For example, when the student is in infant and primary school, incentives generated within the labour market are liable to have a limited effect

on their willingness to engage in learning, though even here the effects of growing up in a workless household or within a local labour market where employment opportunities are limited and generally low paid should not be under-estimated (Buck, 2001; Gibbons, 2002; Lupton and Kintrea, 2008).

Grouping and complementarity

As noted above, the relationship between the various push/pull factors that give rise to an incentive, and the subsequent strength and causal impact that the incentive will create within particular groups and individuals, is liable to be complex (Wiseman, Roe and Hawkins, 2008). To add to this, it seems likely that individual incentives interact to generate overall effects, and either tend to cancel one another out, or to be positively or negatively cumulative and mutually reinforcing (see the example of the two hypothetical individuals below). Therefore focusing on only one incentive at a time (as RoR analyses and much of English policy analysis often tends to do) may prove counterproductive as the basis for an analytical framework if we are seeking to understand individual motivations to learn, forecast how people will choose to act and, most importantly, think through how policy might influence those decisions and actions.

Altering the balance of learning opportunities is one fairly straightforward example of how the interaction of incentives can produce complex effects. The expansion of higher education in the UK has often been depicted as generating a win/win outcome that boosts the Type 1 and 2 incentives on offer to young people – there are more opportunities to participate in higher level (and it is assumed, more interesting) learning, more jobs appear to require a degree and the average graduate wage premium appears fairly stable (DIUS, 2008), although the dispersion around this average is growing quite significantly (Green and Zhou, 2008).

Leaving aside the issue of student support and graduate debt (which may produce significant negative incentives to some young people to participate in HE), what this picture ignores is the impact that expansion has on the incentives facing 'the other half' – the 50 per cent of the age cohort that policy does not see as destined to enter HE. As graduate employment cascades down through the labour market, many associate professional jobs that used to be open to those without a degree are increasingly being

colonised by graduates. The range and volume of relatively highly paid job openings that are available to non-graduates is gradually being reduced (Keep and Mayhew, 2004).

The impact of this change on incentives is not straightforward. On the one hand, the incentives to enter HE are being strengthened, as degrees form the entry requirement (explicit or de facto) for an ever-growing list of occupations – which are not only generally higher paying, but also carry with them other forms of Type 2 incentive. On the other hand, the Type 2 incentives confronting those who do not want or cannot enter HE are becoming less powerful in terms of what other, non-higher education learning opportunities will subsequently lead to (Keep and Mayhew, 2004).

Plainly, the interaction between the education system's supply of qualified labour (at whatever level) and the structure of demand in the labour market can produce powerful clusters of Type 2 incentives. Thus good jobs, which normally come with substantial educational/qualification requirements attached, tend to generate multiple and strong incentives to those who believe they are able to access them, in that such jobs are usually better remunerated, more intrinsically interesting, provide opportunities to develop a career and perhaps to travel and have a higher social status. They often also demand that employees undertake CPD and training in order to remain employed and to progress within the profession or organisation (Sargent and Aldridge, 2002). By contrast, low paid employment is often also highly repetitive, offers less pleasant working conditions, with limited discretion and intrinsic interest, and provides a dead end with little or no real opportunities to progress (Lloyd, Mason and Mayhew, 2008; Lawton, 2009). Those doing such work often see little point in training, since it is outside their experience, their employer does not require higher skills and the opportunities to progress are very limited (Crowder and Pupynin, 1993). The social status of such employment is normally low. Furthermore, the role of prior education and training and qualifications in accessing such employment is often patchy and weak (Central London TEC, 1999; Spilsbury and Lane, 2000; Jackson, 2001; Jackson, Goldthorpe and Mills, 2002; Miller, Acutt and Kellie, 2002; Bunt, McAndrew and Kuechel, 2005; Newton et al, 2005b; Bates, Gifford and Johnson, 2008; Shury et al, 2008). In localities where such jobs are prevalent, they generate weak incentives to engage in initial or adult learning.

However, it is important to underline the fact that many factors may alter the simple kind of polarity that has been sketched in above, and this process of mediation can produce complex interactions within and between the different incentive Types. The example of Licence to Practice as a 'pull' factor that generates an incentive to engage in learning illustrates this.

As noted above, LtP regulations provide a strong, indeed absolute form of Type 2 incentive, in that without the requisite qualification or certification access to the occupation is impossible. However, if the occupation in question is one that is relatively lowly-remunerated (for example, the jobs of 'door warden'/bouncer and care worker are both now increasingly subject to LtP requirements, but both are relatively low-paid occupations) then the strong incentive of LtP meets the weak incentive of a poor RoR on acquiring the necessary qualification. Of course, many other factors and incentives may also be at play – care work may be one of a limited set of opportunities available for females in a local labour market, the social status of care work may be perceived as higher than for some other forms of relatively low-paid employment (e.g. cleaning), and the intrinsic rewards of caring for the young or the elderly and infirm may be seen as outweighing the limited monetary rewards. What all this suggests is the need to identify and map incentives more fully if we are to gain any meaningful understanding of how and why incentives reinforce or undercut one another.

The complexity and uncertainty of incentive patterns and strength

As has been outlined, for many learning decisions the pattern and strength of the incentives (particularly Type 2) is potentially complex – perhaps dauntingly so to any individual contemplating the information (see, for example, Jenkins, Greenwood and Vignoles, 2007). For instance, the labour market impacts of the acquisition of a particular qualification often vary according to:

- the age of the learner
- their gender
- the level of qualification
- subject qualification is in and occupation (if any) to which it is related

- type of qualification/awarding body (academic qualifications at the same level nearly always generate higher average returns than vocational qualifications, and within vocational qualifications in the same subject at the same level there are also significant variations in the wage premia they may attract)
- location in which the learning takes place (e.g. workplace versus non-workplace) and the status and standing of both the learning provider and the institution or body providing the education or training
- who pays for it (low level vocational qualifications paid for by the individual's employer appear to generate higher returns than those funded from other sources)

Moreover, as noted above, much of the information available on the RoR generated by particular qualifications is expressed as an average. Very little information is usually vouchsafed about the dispersion around this average, which can be very considerable.

Another element that adds to complexity and uncertainty, and which is often completely missed by policy makers, is the fact that it is participation in learning that imposes costs and requires investment, and participation is not the same thing as achievement – in other words, a student can participate in learning but not achieve the desired outcome or qualification (see, for example, Villeneuve-Smith, Marshall and Munoz, 2007:6). In such cases the investment made is either totally or partially wasted. English policy makers have an unhealthy tendency to slide from participation to achievement as though the one more or less guaranteed the other (see, for instance, DfES, 2007; DCSF/DIUS, 2008).

A clear example here is the policy discussions that surround the English government's decision to raise the compulsory learning age from 16-18, which frequently seem to ignore the fact that those who currently choose not to participate may be those, who through lack of ability, motivation or confidence, have lower than average chances of subsequently actually achieving qualifications as a result of study. Changing many of the Type 1 incentives, and/or threatening these individuals with compulsion and a criminal record, may be sufficient to encourage more of them to participate, but it will not necessarily raise achievement levels by anything like the same amount.

Overall, complexity is liable to breed uncertainty and makes decisions about participation in some forms of learning more difficult and risky, particularly where

reliable information on likely outcomes is absent – a point noted by the Cabinet Office Strategy Unit (2008) in its paper on supporting labour market progression. This in turn raises issues about the different levels of risk aversion and the time horizons for payback that individuals are willing to accept.

Even where the incentives attendant on pursuing a particular course or qualification are relatively uniform and information on them is good, individuals' perceptions of them may be altered by other considerations or filters, such as class, gender, or ethnicity. We also know from research on young people's choice of careers that assumptions of simple linear choice models may be well off the mark for many students (Hodkinson et al, 1996; Ball et al, 2000; Bloomer and Hodkinson, 2000; Hodkinson and Bloomer, 2001).

For instance, seen through the lens of a child whose family is from a lower socio-economic group living in a deprived community within whose travel-to-work area job opportunities are limited and largely low paid, perceptions of the incentives to continued participation in E&T may appear very different from the official reading of the data based on national average RoRs (Green and White, 2007). Moreover, the perceptions of peers and family will also matter, with the tendency being for those in depressed, low-income neighbourhoods to perceive opportunities and risks very differently from those coming from a more affluent middle class background. As one respondent to Sachdev, Harries and Roberts' research on the NEET group observed, 'you can get a whole row of houses where no one has a job so nobody bothers and it is the norm to do that, no matter how much you preach during the day or in the youth centre you know they go home back to that environment' (2006:51). For those who cannot aspire to entry into HE, other options may appear to (and in reality may actually) deliver very limited and/or uncertain returns as the premia on many Level 2 vocational qualifications is complex and generally low, and the supply of jobs that will pay a substantial premium for a Level 3/intermediate qualification is often quite limited (Dickerson and Vignoles, 2007).

Moreover, policy tends to obsess (selectively) about economically visible incentives, but until very recently has had little to say, beyond the need to 'raise aspirations', about cultural, social, lifestyle and class-based incentives. For example, what incentives underlie the decision by young people to enter the category of Not in

Education, Employment or Training (NEET)? A reading of the world that took greater account of wider parts of the incentives spectrum – i.e. combined the economic with the social and cultural – might garner insights that could aid the formation of more realistic policies. There is also a deep-seated unwillingness to even contemplate the possibility that many young people are acting rationally (at least within the terms of a bounded view of rationality) in the face of the kinds of Type 2 incentives with which they are confronted.

The element of time may also be very important (DIUS, 2008). Most high return investments in E&T involve substantial elements of deferred gratification and a willingness to invest (time, energy and money) over the long-term to produce the desired results. For those whose time preferences are more short-term or constrained (for example, due to family commitments) this may appear unattractive. If there are other opportunities that produce reasonable returns in the short-term, then these may win out – the non-academically gifted teenager who drops out to become a drug dealer may be acting 'rationally' in the light of their preferences and other options.

Underlying some of these tensions and official concerns about how individuals ought to be responding to the information on incentives that are being presented to them by government and its agencies is the fact that policy is based around a pre-ordained conclusion – namely that more E&T for longer and to a higher level is what is needed and that everyone will want this. Incentives are implicitly and explicitly assumed to support this conclusion, when, even in their own narrowly constructed terms, this may not always be the case.

Incentives – socially controlled and mediated

It is also the case that powerful interest groups and institutions will try to (and often do) exert influence over some incentives and who has access to them, not least because good/high status learning and labour market opportunities represent scarce positional goods that are the subject of often fierce zero sum game competition (Brown, 2003; Brown and Hesketh, 2004). Thus, in thinking how incentive structures are set up, sustained and altered it is important to bear in mind that this is not a simple, technocratic, value-neutral exercise. Evidence suggests that the E&T system's role in rationing access to positional goods is well known to powerful groups of actors within society and that

they actively seek to exert influence over how opportunities are distributed (Ball, 2003; Brown, 2003). At the same time, issues to do with maintaining academic standards (however defined by whomsoever) have meant that the qualifications system remains largely geared to summative rather than formative assessment and hence to a sorting role. This in turn suggests that, despite much political rhetoric about extending opportunity and increasing social inter-generational mobility and social equity, real consensus may be lacking concerning the desirability of universally higher levels of participation and achievement, and the creation of a pattern of Type 1 and 2 incentives that might bring this about.

Given a limited supply of good jobs, not all parents (particularly those whose children do well under the current arrangements) may be genuinely enthusiastic about an expanded supply of suitably qualified applicants to compete for them (Brown, 2003). In other words, any policies or practices that aim at a substantial alteration in the pattern of E&T participation and achievement carry with them an implicit threat of ultimately redistributing opportunities for access to the upper echelons of the job market, and are unlikely to go uncontested.

Two illustrative learning 'lifecourse' examples

In order to try and crystallise out and illustrate the different types of incentives and how they can interact, two hypothetical individual cases are offered. Both the individuals are assumed to have more or less identical levels of innate physical and mental ability.

Alexandra A

Alexandra's parents are both medical doctors and she comes from a family background that offers a rich social and learning resource that produces substantial Type 2 incentives to learn. From an early age, she has been encouraged to learn and to do well at school (for example, presents for doing well in exams and tests). From 5 until 11 she attends a state school, but her parents agree that it is worth investing in private secondary education and she is sent to a local private school, which has many facilities (in terms of music, sports, science labs and computer equipment) that its local state school rivals lack. Within the environment of this school (and within her family environment) it is taken as more or less given that bright children will stay on in post-compulsory education and then

proceed to university. The local labour market is deemed wholly irrelevant to career choice.

From an early age she 'knows' that she wishes to pursue a professional career and would like to follow her parents into medicine, which she regards as offering reasonable material rewards and considerable intrinsic interest. She is aware that in order to do this she must do well at both GCSE and A Level, and that her choice of A Levels will need to be guided by medical school entry requirements. Her desired end-goal is enough to carry her through those patches where she finds learning difficult and/or boring, and she is ultimately successful in obtaining the desired grades and offers of a place in medical school. She trains, passes her medical exams and embarks on a career in medicine. She knows she will be offered, and expected to take, numerous opportunities to engage in further CPD-related learning.

Eddie E

Eddie's father has been unemployed for the last 15 years. His mother works on the checkout at the local supermarket. Neither parent achieved much in the way of qualifications while in compulsory education, and both left school at the earliest opportunity. Eddie's home and neighbourhood offer fairly weak environments for learning – there are few books, and family and friends see academic study as generally irrelevant to their lives and work (actual and potential). Eddie's local (state) primary and secondary schools struggle to motivate the predominantly working class children that are their pupils in the face of a local labour market that generates limited incentives to succeed. Most children face a fairly stark choice – stay in the locality, and enter (if they are lucky enough to get one) a low-paid job; or go down the academic route and go away to university. 85 per cent of those who do leave to enter higher education never return to live and work in the town where they were born.

Eddie does quite well at primary school, but on transfer to secondary his performance tends to wane as he finds academic subjects tedious and comes under significant levels of peer pressure to 'bunk off' (play truant). In the latter years of compulsory schooling Eddie finds it hard to know what career or future learning opportunity choices to make, but finds little intrinsic motivation in school and chooses (more by accident than conscious design) not to go down the academic/A Level/VI form

route. He leaves school at 16 with 4 GCSEs at A-C and 3 other passes at lower grades. Financial support available through the Educational Maintenance Allowance encourages him to opt to enter the local FE college, where he chooses to take a one-year course in Business Administration (NVQ Level 2), which he 'drops out' of before completion, because he finds the content and pedagogy boring and cannot see the 'point' of studying the subject. After a succession of low paid casual jobs, he obtains employment as a clerical worker in the local authority's planning department. The pay is poor, and progression, development and promotion prospects are limited – more and more of the management jobs, even at a fairly low level, are being filled by graduates.

It is important to emphasise that these two vignettes are purely illustrative, and should not be taken as indicating a simple, deterministic model whereby incentive structures will generate a single predestined outcome for any individual (Feinstein, Duckworth and Sabates, 2004; McKendrick, Scott and Sinclair, 2007). Looking back across an individual's lifecourse will perhaps tend to produce this effect, since one can more easily capture and depict that which has occurred, rather than the alternative choices that were rejected and which remain invisible. In reality, individuals will inevitably react differently to more or less identical patterns and strengths of incentive – in part due to ability, personality, self-image, values and personal preference. Nevertheless, as aggregate level data shows, particular patterns of reward and opportunity within the UK tend to produce overall trends that mean that all things being equal, it is far less likely that children like Eddie E will end up as doctors than children who share characteristics with and face incentives similar to those experienced by the hypothetical Alexandria A (Cabinet Office Strategy Unit, 2008). Incentives may not determine learning participation and outcomes in an absolute sense, but they do exert a powerful, cumulative influence on them.

Incentive Patterns and Policy

Having outlined a framework that could potentially be utilised to draw together insights from a range of extant research on different forms of incentive, the paper now turns to look at the need for such an analysis within the policy sphere. Some of the policy

assumptions concerning incentives that were touched upon above are explored in greater detail in what follows.

A failure to progress in understanding the problem?

One reason for advocating a fresh approach to conceptualising incentives is that researchers and commentators have been aware of many of the issues that policy has been trying to tackle for a significant time now, even if policy makers have sometimes chosen to forget earlier iterations of the problem. In England, the government's conception and understanding of incentive structures has in recent times, among those charged with direct responsibility for E&T policy, been fairly narrow and has not moved forward very far over a ten-year period.

What makes this particularly depressing is that approaches that aimed at forging the kind of broader mapping and understanding of incentive structures that this paper discusses have been assayed in the past, but have been rapidly forgotten and discarded. Examples here would include the BP-sponsored Learning Should Pay project (see Bennett, Glennerster and Nevison, 1992; and Bennett, 1993) and also the Employment Department's extremely thorough and impressive research project on Individual Commitment to Learning (see Taylor and Spencer, 1994; Park, 1994), which provided the definitive study of adult individuals' motivation to engage in learning. The ED's project reports, although now hard to access, provide an extremely useful and well-researched study of adults' perceptions of the benefits and barriers to engaging in learning and deserve to be studied by contemporary policy makers as an example of a far broader, more sophisticated and integrated approach to the mapping and analysis of incentives than the current model of target-driven policies (Leitch Review, 2006, DIUS, 2007) allows.

One example of a voice ringing out from a past study in this field comes from Bennett, Glennerster and Nevison, who noted as long ago as 1992:

> Much has been made of the need to place greater emphasis on post-compulsory vocational studies. The business community has been particularly vocal. The message is clear: in order to compete, we must improve the skill level of the British workforce. However, financial incentives to pursue these courses contradict the message… the expected lifetime earnings associated with lower vocational qualifications… generally fall below those of school leavers with only GCSEs. Employers

> do not seem to place a high value on low level vocational skills and, as a result, young people are acting rationally in not participating in training to the same extent as on the Continent. Quite simply, as long as some employers contradict the message through their pay and recruitment policies young people will continue to spurn such training. (1992: 12)

Some things do not change, and it is therefore just as well that, 'money is not the only consideration that influences young people in making their choice (about remaining in education' (Bennett, Glennerster and Nevison, 1992: 12), because if it were, current participation rates in some parts of post-compulsory provision would probably fall. In other words, labour market structures and the incentive patterns they give rise to are of critical importance and, as will be discussed below, frequently form the rock upon which policy founders.

Facing up to labour market realities

If aspirations among those in lower socio-economic groups are to be raised, and participation (and achievement) made into a worthwhile investment, then policy makers need to get to grips with developments in the labour market and associated reward structures, and their implications for the incentives to learn. Recasting Type 2 incentives has, as a precondition, the need to recognise and understand current patterns, if only to identify where changes need to take place. This issue lies at the very heart of the persistent failure to move English and UK E&T participation and qualification levels up the OECD league tables.

As much SKOPE research has observed (Keep, 2002; Lloyd, Mason and Mayhew, 2008; Lloyd and Mayhew, forthcoming) E&T policy in England is often based on a very rosy reading of the future shape of the labour market and upon impending transitions to a 'knowledge driven economy'. For example, DIUS higher education (previously skills) minister David Lammy is quoted as saying, 'the jobs of tomorrow will come from industries that require high level, high value-added skills. They will come from the biosciences, from information technology, from financial services and from the industries we haven't even thought of yet' (Lammy, 2007:33). Lammy is the MP for Tottenham (a fairly depressed, lower socio-economic population constituency in inner city London), and it is worth posing the question how many of his constituents, in the recent past, at

present, or in any foreseeable future, are liable to find themselves employed in the kind of sectors he talks about.

In reality, the labour market may be delivering trends that produce a very different picture – one in which occupational polarisation is taking place (Learning and Skills Council, 2007; Keep, 2008b; Lawton, 2009). For example, there is mounting evidence that the location of both good and bad jobs is becoming more geographically concentrated (Green and Owen, 2005; Local Futures, 2006) with attendant polarising effects upon the Type 2 incentives to invest in learning that are operating within the relevant local labour markets. At the same time, the continued existence of a large number of low paid jobs within the economy, coupled with the possibility that opportunities for progression out of these is limited (see Lloyd, Mason and Mayhew, 2008; Lawton, 2009; Cabinet Office Strategy Unit, 2008), means that there are substantial sections of the working population who may often have limited and uncertain incentives to develop their work-related skills (see Green and White, 2007; and Lloyd and Mayhew, forthcoming).

In many instances, policy seems inclined to simply ignore the actual structure of the labour market and the opportunities it offers, and to assume instead that E&T can, of itself, create more and better jobs. Thus the 2007 grant letter from DCSF/DIUS to the Learning and Skills Council included the following more or less unachievable objective – 'the Council will be expected to help more people, particularly those with low basic skills, move from being low skilled and out of work into good jobs with good prospects for further progression...' (2007:4). The LSC, as a body that funds learning, is not equipped to generate 'good jobs with good prospects' (however defined), and all the indications we have are that, at any given moment, their supply is finite within the UK economy (Lloyd, Mason and Mayhew, 2008). Expanding the supply of those qualified to undertake such work may do little to expand the opportunities on offer.

The tendency to believe that participation and achievement in E&T by individuals can somehow fundamentally alter the occupational and reward structures operating in the UK labour market is quite widespread. Thus a national newspaper columnist, in suggesting that the new 14-19 diplomas would not work if only confined to vocational subjects, and arguing for their extension into academic subjects, observed, 'Diplomas

were to be allowed from 2008 only for the goose subjects, for the less bright kinds studying hair and beauty, engineering, construction, sports and so forth. In short, second-class qualifications for second-class people fated to lead second-class lives' (Ashley, 2007:31).

Leaving aside whether many of those working in sectors such as engineering and construction would necessarily endorse the somewhat patronising notion that they were 'second-class people fated to lead second-class lives', the reality is that much employment is subsumed by these occupational areas and someone, irrespective of what type of qualification they hold, is liable to need to fill these positions if the economy is to function. Producing more young people with academic qualifications will not magic these forms of employment away. In this regard, the following question raised by Spielhofer et al in their review of the evidence for DCSF on the benefits of raising the learning age to 18, is an important one:

> It is also not clear whether, if more young people continue in learning and achieve higher-level qualifications, they will all share the same benefits as seen by those doing so at present. In other words, if all those currently at or below Level 1 were to stay on and achieve Level 2 qualifications, would they share the same benefits as those currently achieving Level 2 qualifications? (Spielhofer et al, 2007: 33)

It should also not be forgotten that the pattern of educational provision and its associated incentives (Types 1 and 2) often replicate a hierarchical, increasingly polarised labour market structure (Delorenzi and Robinson, 2005; Pring et al, forthcoming).

Bad choice or rational choice?

In the light of the above discussion of the labour market, it can be argued that a key problem with how English policy makers engage with the issue of incentives and resultant patterns of choice is their strong tendency to assume that levels of participation that do not meet their expectations or help achieve the targets that dominate E&T policy can only be the result of 'bad/poor' attitudes, aspirations and choices on the part of individuals or communities, and that if they were better informed they would see the need to participate (see EdComs, 2007). As we have noted above, individuals face often complex and highly differentiated incentive structures, where information is usually imperfect. Although people may sometimes act irrationally, it would be more sensible

and plausible to view patterns of participation in E&T as the result of people generally acting fairly rationally within the circumstances and bounded information sets that they face (Gottfredson, 2002). Many of the decisions that policy makers see as foolish or reprehensible may in fact be the result of preferences on the part of young individuals who have different priorities and values than those held by policy makers. For example, Watts and Bridges (2006) show how some young people who opt not to continue into HE are motivated by aspirations that lead them towards different values and lifestyles.

Moreover, because policy makers have already defined for themselves the desired 'good' choice and resultant outcome (more participation in E&T), and have justified this on the basis of often very simplistic and partially misleading readings of the labour market and wage opportunities available to segments of the working age population (Keep and Mayhew, 2004; Keep, 2007; Lloyd, Mason and Mayhew, 2008; Lawton, 2009), they often misapprehend the possibility that people are actually acting rationally given the real incentives they face. More participation (and even qualification achievement) may not be an automatically good thing if it results in participation that leads to failure or to the achievement of qualifications that have little or no value (Dalziel, 2008) Thus, many of the policy 'problems' around participation in post-compulsory E&T are problems only because the policy makers have chosen to define them as such – they do not necessarily appear as problems to those making the choices that give rise to the situation the policy makers are unhappy with. For these individuals the real problems lie elsewhere – with a shortage of good job openings, a surfeit of low paid work and with barriers to learning.

In recent times policy makers have worsened the situation by choosing to see an outcome that they would have, in the past, endorsed as good – young people entering a job – as now constituting a new category of failure or bad outcome if the job in question does not offer formalised training – a category of employment that policy makers have chosen (misleadingly) to label as Jobs Without Training (JWT). In fact, many of the JWT do offer training, it is simply that it is either uncertified learning or does not lead to a 'first Level 2 qualification' that is the focus of the government's targets for the 14-19 age group (Maguire et al, 2008). Some of the young people who fill these jobs are entering employment in the family firm and some are working for large companies that

offer formalised training that is not certified through the qualifications system. What is a 'problem' for policy makers is, for many young people, a desired outcome - a job (Hodkinson, 1997; Maguire et al, 2008). In a democracy, the existence of a plurality of values and priorities in life would seem valid, though in contemporary English policy discourses to be unqualified or perceived as under-qualified or under-enthusiastic about learning is to run the risk of being labeled socially deviant.

Making markets work

Another persistent and closely-associated belief among some in the policy community has been that the key to improved participation and achievement is a better functioning market in the provision of E&T, supported by empowered individual consumers and oiled by far better information, advice and guidance (IAG) on E&T offerings and labour market opportunities (see, for example, TEC National Council, 1994 and 1999; Webb, 1995). Echoes of this line of thought emerged in the Leitch Review (2006) and in subsequent moves towards what is supposed to be a more demand-led learning system (LSC/DfES, 2007). For a helpful critique of this approach, see Rees et al (2006).

A subsidiary strand within this line of policy has been a claim that the better marketing of E&T offerings can, of itself, materially impact on levels of participation and achievement. Examples here would include the call by the then-chair of the Learning and Skills Council (LSC), Sir Bryan Sanderson, for education to re-brand itself (Sanderson, 2001), and the LSC's own marketing and communications strategy, which is supposed to be driving increased learning (LSC, 2006).

While there is undoubtedly a very strong case for the provision of better IAG, and for all E&T providers to market their wares to the best of their ability, there remains one large flaw in this approach, namely that demand from many individuals and firms may be limited. The TEC National Council (1999) study on developing a learning market noted that demand from both companies and individuals appeared to be patchy, but experienced difficulties in getting to grips with why this might be the case. The answer to the problem was deemed to lie in the traditional route of making 'the case for training' more forcefully and in culture change. In other words, the structural landscape that might be placing limits on demand via the weak and patchy incentives it generated (Rees et al, 2006), was ignored.

Much the same problem afflicted Sanderson's plea to remake educational offerings:

> The fact is that if we are to be successful, we need to reach a mass market. We need to shrink-wrap our programmes and brand them in ways that make people want to buy. Remember the sales pitch: we are selling social transformation through personal development. It doesn't matter how people buy into that concept. What matters is that they buy. (Sanderson, 2001: 24)

Leaving aside the issue of whether it is either sensible or possible to 'brand' E&T in the same way as soap powder, if people are aware that the labour market opportunities that they face are limited, with a large number of low paid, dead-end jobs, and poor opportunities for progression (Lloyd, Mason and Mayhew, 2008; Lawton, 2009), and if they also have an inkling that many low level vocational qualifications – no matter how they are branded – deliver negligible gains, then the concept of social transformation may ring a little hollow and attract a limited number of takers.

The search for happy endings and the tendency to misread the evidence

One aspect of the 'making markets work' school of thought that is particularly disturbing is the impetus it sometimes gives to policy actors and E&T providers to mis-read or mis-state what the evidence on incentives really tells us. This is, to some degree, because many contemporary English E&T policies start with a target – either for participation or achievement of a qualification – and then devise a policy or intervention to deliver the desired outcome (almost always an increase in participation and achievement). They then try to construct a reading of the incentives that will support this pre-determined goal of a 'happy ending' for policy. As a result, policy makers and providers (of courses and qualifications) within the E&T system often find themselves sharing a common goal – to see a boost in the uptake of post-compulsory learning. The problem comes in the way that both parties sometimes feel the need to manipulate the representation of the data on incentives in order to help support this pre-ordained objective. Two examples will suffice.

The first relates to the way in which 'evidence' on the size and certainty of the 'graduate premium' that the UK labour market affords those holding a first degree is presented by bodies such as DIUS, UCAS and Universities UK (UUK). The danger of

misleading potential students comes in the frequent resort to a single average figure. As DIUS put it in their document *Higher Education at Work, High Skills: High Value* (2008):

> Over their working lives, we believe that the average graduate earns, after tax and in today's valuation, comfortably over £100,000 more compared to what a similar individual would have earned if they just had A-levels. (DIUS, 2008: 13)

At one level, this statement is true, but it is also deeply problematic because there is a very wide range of variance around this average, and this may be partly due to rising levels of over-qualification (see Green and Zhou, 2008). As Andrew Oswald notes:

> … there are caveats that need to be kept in mind. The gains from a university education are greater for those who do science or social sciences, for those who go to a top university and for those who earn first-class honours degrees. They are also generally bigger for women than men… arts and humanities degrees are associated on average with a positive rate of return only for women. The biggest financial returns seem to be gained by students doing subjects such as mathematics, medicine, engineering, accountancy and economics. (Oswald, 2009: 12)

The second, and in some ways more disturbing example comes from a research report and associated press release issued by the vocational qualification awarding body City and Guilds (2006a & b). The report aims to demonstrate that in future those working in vocational trades will be able to earn large sums of money, and that therefore investment in a vocational qualification will be handsomely rewarded. Leaving aside the overall accuracy of the projections for earnings in 2010, 2015 and 2020 that are developed, there is a problem with the way in which these, particularly as they are presented in the press release (2006b), slide from average salaries in vocational occupations to earnings projections for what are termed 'parallel careers' that individuals in such occupations can aspire to. Thus the press release states:

> By 2020, the fortunes of many more vocational workers will improve as their earnings climb at a faster rate than for most Britons, due partly to increasing demand for their skills. The fitness industry, the report predicts, is set to become one of the biggest success stories over the next 15 years due to the population's higher disposable income. Instructors at the top of their profession are in line for an £80k salary - £28,000 more than the national 2020 average… Meanwhile, the spotlight is also on senior security guards who will be taking home £70,500 a year on average – nearly £20k above the predicted UK norm. 24 hour opening for pubs will lead to an

> increased demand in door security, placing qualified staff at a premium. (2006b)

In reality, the figures for 'fitness instructors' relate to leisure and sports centre managers, and those for 'senior security guards' to protective service officers. What the press release does not point out is that for those who do not make the jump into these 'parallel careers', expected average earnings for both fitness instructors and security guards will actually remain well below the expected 'realistic national average' wage. Indeed, fitness instructors are projected in 2020 to be earning less than half the national average wage.

Over-reliance on Type 1 and 1b incentives?

Perhaps because of an inkling on the part of some policy makers that the market-based approach has not had the desired impact, there has been an increasing stress under the New Labour government on Type 1 or Type 1b incentives to secure high levels of participation, achievement and progression. As the author has previously noted (Keep, 2005) reliance on such measures may be smaller in other countries than is often the case here. There is a grave danger that in many of the recent and current education reforms that have sought to generate enhanced Type 1 incentives to counteract the weakness or absence of adequate (in terms of strength and coverage) Type 2 incentives, policy makers are loading too great a set of expectations onto what can be achieved within the E&T system.

One rather forlorn example of policy makers loading unsustainable expectations onto a Type 1b intervention was the ill-fated Connexions Card scheme. This was a form of 'loyalty' card (modelled on those used by retail store chains) and managed for government by a large private utilities/facilities management group (Capita). The aim was for it to offer children access to discounts on sportswear and CDs in return for their participation in post-compulsory education. The expectation was that 1.7 million young people would use the cards and that the offer would have a measurable impact on increasing staying-on rates in education. In the event, awareness and usage of the cards was very low, and between 2001 and 2004, just 54,788 16-19 year olds availed themselves of the offer. The cards were abandoned in 2006, having cost the UK taxpayer around £66.14 million, or more than £1,000 for each card that was actually used (Stewart, 2006). That such expenditure could have been put to more productive use elsewhere in

the E&T system hardly needs underlining. The important point to note is the incommensurability of scale as between the size and scope of the Type 1b incentive being offered (some discounts on some consumer items that policy makers assumed young people to value) and the intended outcome/effect – a decision to remain in post-compulsory education.

The history of past attempts to redesign E&T provision in order to create more powerful Type 1 incentives also suggests that it is much easier to specify the end than to will (and design) the means by which it is to be achieved. The last quarter of a century of educational reform in England is littered with initiatives that did not deliver the expected degree of change in participation and achievement (for instance, in the area of qualifications, the Certificate of Extended Education (CEE), the Certificate of Pre-Vocational education (CPVE), National Vocational Qualifications (NVQs), General National Vocational Qualifications (GNVQs) and Advanced Vocational Certificates of Education (AVCEs), to name just a few). As is often the case with English E&T policy-making (Keep, 2006), the assumption regarding the impending roll out of the new 14-19 Diplomas is that, 'this time it will be different (and better)'. Indeed, even before a single student had started to study the first pilot diplomas, never mind a single diploma 'graduate' having been recruited into HE or the labour market, policy makers had already decided (on the basis of no available evidence) that the diplomas would have a large positive impact on post-compulsory participation levels (DfES, 2007; DCSF/DIUS, 2008; DCSF, 2008) by virtue of the strong Type 1 and 2 incentives diplomas were expected to generate (greater intrinsic interest and challenge, new pedagogies, relevance and the high value attached to diplomas by HE and employers). In reality, the most likely outcome is liable to be disappointment.

Furthermore, many other developed countries appear to generate higher levels of participation in learning and qualification achievement largely through Type 2 incentives. Their curricula and teaching methods often remain traditional, relatively regimented, un-personalised, and demanding of high levels of commitment from the student – in other words the strength of Type 2 incentives obviates the need to obsess about strengthening Type 1 incentives (Keep, 2005).

This suggests that rather than simply focus on reforms that target and aim to alter individual facets or elements of the Type 1 incentive range, there is also a need for policy to survey the array of Type 2 incentives (Deloranzi and Robinson, 2005: 39), and to consider what means there are to:

- Help, over time, recast Type 1 Incentives in ways that are more mutually reinforcing.
- Help, over time, to recast and re-orientate the external Type 2 Incentives, in order to both increase participation and progression and to improve distributional and economic outcomes more generally so that we can arrive at a high skill, high wage economy. Such changes would help reduce the need to use Type 1b subsidy/incentives.

Culture change

Despite the points made above, more recently some commentators have chosen to view the central problem as individuals holding inappropriate cultural assumptions and views about education and in having weak aspirations (for themselves and their children). The key to progress is thus assumed to rest with some form of broad culture change.

As noted above, this cultural approach has had a significant impact on recent thinking by government (H M Government, 2009). It has led to a policy analysis that focuses on low aspirations in specific communities (identified as being in the main white working class groupings in Northern cities) and how a cultural or behavioural approach can be deployed to raise horizons in these communities in order to encourage children to do better at school and strive for higher level jobs (Wintour and Stratton, 2008). The Cabinet Office minister Liam Byrne is reported as hoping that in future schools could act as 'the 'power supply' for aspiration in the communities they serve' (Wintour and Stratton, 2008), and, as previously observed, the latest white paper on skills and social mobility (H M Government, 2009) also places considerable stress on the role of cultural change in raising aspirations:

> In some deprived communities, as well as economic disadvantage, lower expectations and low self-esteem can hold people back. So we will establish a new Inspiring Communities Campaign to bring together local businesses, schools, agencies, parents and the wider neighbourhood to find innovative ways to raise the aspirations of young people. We will develop

> new opportunities and, crucially, work to build up the confidence and motivation that young people and their families need to take up what is already on offer. (H M Government, 2009: 10)

This fits into a broader picture of reliance on cultural change as a central plank in contemporary English E&T policy discourses. Thus Secretary of State for Children, Schools and Families, Ed Balls opined, 'we need a culture throughout schools which makes sure that the 10-year-olds today understand fully the risks and consequences for them of not being in education or training' (quoted in Curtis, 2007: 14), while the Department for Innovation, Universities and Skills, in a response to a House of Commons select committee report argued:

> We need to change the culture in this country around skills, so that when someone complains that they are in a low-paid, dead-end job, people ask them what they are doing to improve their skills… (House of Commons Education and Skills Committee, 2007:1)

> We recognise that to deliver our world class skills ambitions, we need to stimulate significantly increased demand for and investment in skills from employers and individuals. We need to embed the value of skills in our culture in a way it has never been before. (House of Commons Education and Skills Committee, 2007: 12)

The problem is that, as it is deployed by policy makers, the cultural values that are identified as the seat of the problem sometimes appear to float free of any material underpinnings or influences. They also face two major difficulties. First, if culture really is the problem, then the policy intervention becomes one of culture change and aspiration raising. The obstacle here is that culture change is not easy to engineer, particularly through public policy and, even within large, sophisticated private sector organisations, attempts at rolling out cultural change programmes have tended to end in partial or total failure.

The second, and potentially larger, difficulty for policy may come in finding the incentives that will drive, or at least not thwart, the desired change, given that as was noted above, the structure of our class system, labour market and economy supports the current patterns and cultures of aspiration and learning. The problems of current UK labour market structures and opportunities have already been discussed and, as Gutman and Ackerman note:

> Aspirations begin to be shaped early in a child's life, but are modified by experience and the environment. Aspirations tend to decline as children mature, in response to their growing understanding of the world and what is possible, and to constraints imposed by previous choices and achievements. (2008: i)

A key set of limits on the possibilities facing many young people are the volume, range and quality of what is on offer within their local labour market. Reporting work by the Prince's Trust (2004), Gutman and Ackerman observe that, 'while 14-17 year-olds were optimistic about getting good, well-paid jobs, their aspirations dissipated as they faced the realities of low-paid, low-skilled jobs in the later teenage years' (Gutman and Ackerman, 2008:i).

Policy is now casting schools and FE colleges in England in a compensatory role (Pring et al, forthcoming) in relation to:

- lack of support for learning from parents
- unemployment
- poverty
- poor housing and a depressing physical environment
- limited local amenities
- drug and alcohol abuse
- a local labour market that offers limited opportunities and incentives to learn

In other words, schools are intended to act in lieu of both parental 'push' to learn and for labour market 'pull' or demand for learning. As noted above, the recent H M Government (2009) policy paper on skills and social mobility again allots a pivotal role to schools in raising aspirations among white working class children. In reality, it is profoundly unclear whether Type 1 incentives, however well designed and delivered within the learning environment, can compensate for the absence of adequate positive Type 2 incentives within the home and in wider society and the economy (Pring et al, forthcoming).

Others have recognised that culture change might need the catalyst of political or material incentives to stimulate the desired new patterns of behaviour and investment. Ransom (1992) argued for nothing less than a transformation of society driven by the emergence of a new political order:

> There is an urgent need for fundamental change, to create a common purpose and the conditions for individuals and their communities to flourish by empowering their sense of agency and responsibility for the future. The foregoing analysis suggests that to realise such aims will depend upon the creation of a new moral and political order both to support the development of individual powers and to create an open, public culture responsive to change. The defining quality of such a new order, and the key to change, is a society which has learning as its organisational principle… Our priority must be both to change the purposes of education and to embody, in the reform of social and political institutions, the organising principle of learning. (Ransom, 1992: 71)

At a slightly less all-encompassing level of aspiration, Sir Christopher Ball (1997) suggested:

> Others believe that 'carrots change cultures' – that we should introduce incentives to encourage and reward the behaviour that is sought. For example, the introduction of a statutory minimum wage linked to the attainment of learning level 3… might create a powerful incentive for young people and adults alike to raise their qualification level… I am persuaded that we need better incentives and more transparent rewards for personal learning. (Ball, 1997: 4).

It might be argued that the decision to back the raising of the learning age with compulsion and the threat of legal sanctions against non-cooperative young people suggests that however enthusiastically DCSF promote the goal of cultural change, they recognise that sticks change cultures as well, or as the secretary of state has put it, 'new rights must be matched by new responsibilities' (Balls, 2007: 2). However, here the government may yet again be falling victim to the tendency to confuse participation (willing or unwilling) with achievement. As Alison Wolf has noted, 'You cannot make people learn if they neither want to nor see the point of it' (Wolf, 2007). In other words, without adequate incentives to support it, compulsion may force young people to stay on in education and training until 18, but it will not necessarily mean they achieve anything much while doing so.

Overview and Final Thoughts

What the foregoing brief review of policy underlines are two points. First, that there is a tendency towards incoherence of approach, whereby much of current policy is constructed out of two conceptual polar opposites – a somewhat reductionist model

human capital theory, a selective reading of the data from RoR analyses, and a belief in rational choice; coupled with a de-contextualised and 'de-materialised' model of aspiration and cultural change. The middle that is missing here covers, among other elements, the social construction and mediation of ambition and choice, the weakness and patchiness of labour market demand for skills and qualifications, and the heterogeneity of the groups that policy is aiming to impact upon. The result is policy interventions that often seem to float above the real problem.

In the face of outcomes that have fallen short of hope and expectation, policy makers have simultaneously placed reliance on making markets work and a demand-led system, on placing an optimistic gloss on RoR analyses and future forecasts of labour market structures and wage levels, on increasing levels of government subsidy to compensate for labour market demand that is not forthcoming, and in the potential for culture change and aspiration raising to generate much improved outcomes. It is not clear that either individually or collectively these policy approaches can deliver what is desired. If this is the case, and if extensive labour and product market regulation that aimed to force employers to demand higher levels of formal qualification from the bulk of job applicants is not on the agenda, then other types of policy intervention to boost E&T participation and achievement may be necessary.

The second message from the review of policy is that incentive structures are often polarised, so that those who are doing well are faced with strong signals and promises of reward, and those who are doing badly face very weak and uncertain incentives. Thus, as previously noted, for those heading into higher education there is a relatively simple, straightforward and well-resourced 'Royal Route' (GCSEs, A Levels and, where it is available, the IB and then undergraduate study). For those at the lower end of the academic ability spectrum provision is concentrated in lower status and less well-funded institutions, and usually leads to much weaker labour market outcomes. In other words E&T provision as currently constituted represents a regressive pattern of resources and opportunities, those most in need of strong and certain incentives are faced with the most complex and uncertain routes through E&T, the qualifications that produce the weakest and most uncertain and complex pattern of returns, and those sections of the labour market where the purchase of qualifications on recruitment and selection decisions often

appears to be weakest (Central London TEC, 1999; Miller, Acutt and Kellie, 2002; Bunt, McAndrew and Kuechel, 2005; Newton et al, 2005). Policy often glides over the less palatable elements of this picture, stressing the 'good news' on subsequent earnings (on average) at degree level, while remaining silent (or looking for a way to spin) the facts about the fairly bad news at NVQ Level 2.

One of the key ways in which policy could move forwards would be by developing a much better appreciation of:

- how and why particular incentives exist and the forces that give rise to them
- the patterns through which they are distributed
- the variations in their strength and certainty, and the impacts that this is liable to have on choices made by individuals

Better efforts to map the scale and strength, certainty, duration and coverage of incentives would aid the design of policies that could start to strengthen incentives for those who currently face weak signals, poor rewards and high levels of uncertainty and risk when contemplating investing time, energy and money in learning.

Moreover, given the tensions that exist between the narrow and fairly selective take on incentives that underpins much of current English E&T policy and the wider realities and complexities of incentives created by the labour market and other societal structures, there is a need for both new types of research and for fresh policy thinking in this area. Inquiry that adopts a more holistic and widely focused analytical perspective offers the potential to help guide policy formation towards the identification of those incentive structures and associated effects that are preventing the realisation of desired policy goals, and therefore towards the fashioning of appropriate interventions that can address the real cause of the problem. This might take place through trying to change the incentive in question, or through seeking to increase the supportive inter-action of other incentives in order to create a sufficient compensatory effect. Without this foundation of understanding, the danger is of misdirected and inappropriate interventions and, as a consequence, much wasted time, money and effort.

One example of a recent attempt at a more integrated approach to thinking about incentives has come from the Scottish Funding Council, in the shape of their document *The labour market, the learning market: influencing change* (SFC, 2007b). This sets out

the Council's framework for understanding how its activities (and the incentives these create) interact with wider structures and incentive patterns in the economy and society. It serves as a useful model for other E&T institutions in seeking to think through how their activities and policies exert leverage on individuals' decisions to invest in E&T, not least in terms of underlining the need for E&T institutions to understand the limits of what they can achieve in the face of strong (Type 2) incentives from outside the E&T system. For instance, as the Scottish Funding Council note, 'if learners perceive an industry or career as being not particularly attractive, attempting to influence the supply of qualified people to the labour market by incentives in the institutional funding method is not likely to be effective' (SFC, 2007b:7).

Plainly, the approach outlined in this paper to conceptualising incentives carries with it a number of drawbacks for policy-makers vis-à-vis the more unidimensional construction that is RoR. These include:

1. The need to gather many different kinds of data, some of which relate to intangible benefits and disbenefits, to which it is therefore sometimes hard to assign an exact and specific numerical value.
2. The need to construct a much more complex, finely-grained and multi-factor model of decision-making.
3. The fact that this approach does not, on the whole, produce the kinds of simple headline, national average figures that policy makers favour when trying to make the case (to both employers and individuals) that investment in skills 'pays'.

Its great advantage, however, is that in mapping the different incentives and their relative force or weight there is the likelihood that the picture that emerges might offer policy makers a much better understanding of which incentives need to be altered in order to change patterns of participation and achievement in learning activity. It might also help the policy process to start to take better account of the underlying structural arrangements and patterns within the economy, labour market and society that generate these incentive patterns (since incentives tend to be both a cause and an effect).

Indeed it seems reasonable to assume the general proposition that the best outcomes (in terms of the performance of the E&T system in generating higher levels of participation and achievement) will occur under conditions wherein incentive Types 1

and 2 are closely aligned and mutually reinforcing. The trick for policy makers is to bring this about. The trick for researchers is to provide a mapping and analysis of the incentive structures facing particular groups of learners or potential learners that is sufficiently finely grained and clearly expounded to aid policy makers in their task of designing such a conjunction of incentives.

This paper has discussed the different types and structures of incentive facing individuals. The same kind of approach could also be applied to mapping the forces acting upon firms' decision-making on investment in skills.

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