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GETTING FITTER FOR THE JOB: IMPROVING THE QUALITY OF LABOUR MARKET INFORMATION USING INDIVIDUAL-LEVEL SURVEYS

Professor Alan Felstead

Address for Correspondence:

Professor Alan Felstead,
Cardiff School of Social Sciences,
Cardiff University,
Glamorgan Building,
King Edward VII Avenue,
Cardiff CF10 3WT.
Tel/fax: +44 (0) 29 2087 9050;
Email: alanfelstead@cf.ac.uk

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INTRODUCTION

The quality of labour market information (LMI) to inform and guide employment and skills policy formulation is still indicted, even in official circles, of not being fit for the job. However, these doubts are nothing new; they have been voiced on various occasions in the past. Back in 1999, for example, the Skills Task Force concluded 'that there was too much data overall' and to make matters worse, 'what there was was inconsistent and incoherent' (DfEE, 1999: 87). It made a number of recommendations to address these failings, so that there would be 'fewer, [but] better surveys' in the future (ibid: 95).

Three of its recommendations are worth recalling. First, the Skills Task Force proposed that a regular survey of employers' skills needs be undertaken in order to 'establish in more detail the nature of their skill needs and the problems which a lack of skills may be causing for the functioning and growth of companies' (ibid: 90). To allow occupational, sectoral and regional disaggregation, a large survey of employers was proposed.[1] This led to the launch of what is now referred to as the National Employers Skills Surveys (NESS). The 1999 and 2001 versions of the survey had a slightly different sample base and, for that reason, they are usually treated as the forerunners of the NESS proper. Through these surveys the views of large numbers of employers have been canvassed over the last decade: in 1999 27,000 employers took part; in 2001 a similar number were surveyed; in 2003 the sample was increased to over 72,000 employers; it dropped back to around 27,000 in 2004; rising to around 75,000 in 2005; and 79,000 in 2007 (Bosworth *et al*., 2000; Hudson, 2000; Hogarth *et al*., 2001, 2004; Shury *et al*., 2005, 2006; Winterbotham *et al*., 2008). Similar employer surveys have been carried out

[1] The collection of employer-level data is beyond the scope of this paper, but has been addressed in separate papers commissioned by UKCES.

in Wales and Scotland, although sometimes with less regularity and correspondingly smaller sample sizes (Futureskills Wales, 2005; Futureskills Scotland, 2007).

To allow regional and sub-regional analysis of individual-level data, the Skills Task Force's second major recommendation was to boost the sample size of the Labour Force Survey – the main official source of individual-level data. This recommendation was implemented with the launch of local area boosts and the establishment of the Annual Population Survey (Bell and Hussain, 2000; Burke and Williams, 2000). However, progress on rationalizing 'surveys conducted by local, regional and sector bodies which receive public funding' (DfEE, 1999: 96) and promoting the use of common definitions, protocols and instruments of those which remain – the Skills Task Force's third major LMI recommendation – is more difficult to assess. After all, the number of possible sponsoring agencies is numerous, the commissioning process can be ad hoc, and the themes covered are often of parochial and specific interest rather than of general relevance. Rationalization and co-ordination of such surveys is inevitably more difficult to achieve for these reasons and demonstration of any progress made is hampered by the fact that a list of all government sponsored surveys of relevance, from the large to the very small, is currently not available.

Despite this flurry of activity, whether what we now have is fit for purpose is still the subject of some debate. For example, the Leitch Review of Skills observed that there was 'little coordination between different [survey] sources, meaning that in some instances they deliver contradictory information' (HM Treasury, 2006: 91). Similarly, in the devolved administrations it is recognized that employment and skills policy formulation has to be based on 'the right intelligence to underpin our decision-making and provide accurate information' (Welsh Assembly Government, 2008: 11). Getting LMI fit for purpose is therefore of crucial importance.

It is in this context that this paper was commissioned by the UK Commission for Employment and Skills (UKCES), which now has responsibility for improving the quality of LMI across the UK. While LMI is widely recognized as a 'public good' which

serves multiple interests (OECD, 2007), this paper is focused on what and how improvements can be made to individual-level data so that progress towards meeting the challenge of making 'the nation a world-class leader in employment and skills' can be assessed accurately (UKCES remit letter, 18 March 2008). In pursuing this objective, the paper aims to further the debate by: mapping the most relevant individual-level data sources; indicating what aspects of LMI they already illuminate, even if these results do not always figure in the policy discourse; and suggesting ways in which greater coordination between surveys might be achieved for the benefit of policy-makers and other data users. The paper is therefore divided into three substantive parts, each of which reviews different types of individual-level survey according to their funding source and geographical reach: official UK surveys; other UK surveys; and international surveys, which have the potential of pinpointing the UK's position in the world league table of employment and skills. The paper ends with a conclusion which makes a number of recommendations about how individual-level LMI might be made fitter for the job.

OFFICIAL INDIVIDUAL-LEVEL SURVEYS

Data on the employment and skills are regularly reported in a number of government publications, with each report placing a slightly different emphasis on the type of evidence presented. For example, *Skills in England* reports annually on participation rates in education, qualification attainment levels, the demand for qualified labour, and the incidence, intensity and costs of workplace training (e.g., LSC, 2007). The annual compendium of *Education and Training Statistics for the United Kingdom* covers similar issues in its review of the post-compulsory sector, albeit in far less detail (e.g., DCSF, 2007: chapter two). However, it has a broader remit to present data on all parts of the education and training system in the UK. As a consequence, it contains data on schools, colleges and higher education institutions as well as educational expenditure and the destination of students. Similar data are also presented at an even higher level of generality in other official reports. *Social Trends*, for example, draws together social and economic data on an annual basis from a wide range of sources to provide a comprehensive guide to UK society today, and how it is changing. This includes two

chapters of relevance to this paper – one on education and training, and one on the labour market – out of a total of thirteen (ONS, 2008b: chapters three and four).

Despite differing in the sharpness with which these reports focus on employment and skills issues, they all draw on a similar body of individual-level evidence – official surveys (see Table 1). The most heavily used sources are the Labour Force Survey (LFS), the Annual Population Survey (APS), and Annual Survey of Hours and Earnings (ASHE). These surveys also are prominently analyzed in the Office for National Statistics' *Economic and Labour Market Review*, which is published monthly; rarely a month goes by without the results of at least one of these datasets featuring in one of the articles it publishes. It is therefore appropriate that our review of existing individual-level surveys begins with official surveys.

By definition individual-level surveys are based on samples of the population with considerable effort devoted to ensuring that they are representative. Only relatively rarely are questions asked of, and information gathered on, all those who are living in the UK. The Census of Population is the exception to this rule; it covers everyone and has to be completed by law. It is the only poll which provides a detailed picture of the entire population, and is unique because it covers everyone living in the UK on a particular day and asks the same core questions of everyone no matter where they live (with the exception of the Welsh language question only asked of those living in Wales in 2001). The head of each household is given a form to fill in on behalf of all those living with them on the day of the Census. Since 1801 a Census been carried out every ten years, except during the Second World War. The basic principles of the Census have remained the same, although new questions have been added and others have been omitted over the last two centuries. In the 2001 Census, around 98 per cent of the population supplied information. The next Census will be held in 2011.

The obvious advantage of the Census is its comprehensive coverage. The other major benefit it has over all the other data sources considered here is that it paints a picture of the human geography of the UK at a very fine level of spatial disaggregation.

Table 1:
Employment and Skills Data: Individual-Level Sources –
Official Surveys

Survey	Focus	Funding Source	UK Coverage	Frequency
Census of Population	Since 1801, every ten years the nation has set aside one day for the census - a count of all people and households. It is the most complete source of information about the population that we have. The latest census was held on Sunday 29 April 2001.	Office for National Statistics (ONS) in England and Wales. Elsewhere, it lies with the General Register Office for Scotland and the Northern Ireland Statistics and Research Agency.	All UK residents are required to have their details entered onto a census form that is delivered to every household.	Every ten years.
Labour Force Survey (LFS)	The Labour Force Survey (LFS) is a quarterly sample survey of households living at private addresses in the UK. Its purpose is to provide information on the UK labour market that can then be used to develop, manage, evaluate and report on labour market policies. The questionnaire design, sample selection, and interviewing are carried out by the Social and Vital Statistics Division of the Office for National Statistics (ONS) on behalf of the Statistical Outputs Group of the ONS. The survey seeks information on respondents' personal circumstances and their labour market status during a specific reference period, normally a period of one week or four weeks (depending on the topic) immediately prior to the interview. The LFS is carried out under a European Union Directive and uses internationally agreed concepts and definitions.	Office for National Statistics (ONS)	Each LFS contains data on a random sample of individuals throughout the UK. Almost 60,000 households are contacted and information is collected on a total of 150,000 people, of whom around 65,000 are aged 16 and above and are in work at the time of interview.	From 1973 to 1983 the LFS was carried out every two years. Following a change in the requirements of the EU, from 1984 to 1991, it became an annual survey. Since 1992 it has been carried out quarterly.
Annual Population Survey (APS)	The Annual Population Survey (APS) is a combined survey of households in Britain. Its purpose is to provide information on key social and socio-economic variables between annual surveys, with particular emphasis on providing information relating to small geographical areas. The APS comprises the LFS plus data from the Annual Local (Area) Labour Force Survey (LLFS) boosts for England, Scotland and Wales.	The LFS is funded by the Office for National Statistics (ONS), while the LLFS are funded by DWP/DIUS, the National Assembly for Wales and the Scottish Executive.	APS datasets are produced quarterly with each dataset containing 12 months of data. There are approximately 170,000 households and 360,000 persons per dataset. More robust local area labour market estimates are available from the APS than from the main LFS.	The first publication of APS data was July 2005, which included data relating to January to December 2004. Subsequently, APS data has been published on a quarterly basis, but with each publication covering a year's data.
Annual Survey of Hours and Earnings	The Annual Survey of Hours and Earnings (ASHE) provides information about the levels, distribution and make-up of earnings and hours paid for employees within industries, occupations and regions. The ASHE was developed to	Office for National Statistics (ONS)	NES was mainly based on a 1 per cent sample of employees on the Inland Revenue PAYE register for February	The NES was designed to meet the policy needs of the 1970s and has been carried out annually ever since.

(ASHE)	replace the New Earnings Survey (NES) in 2004. The ASHE tables contain UK data on earnings for employees by sex and full-time/part-time workers. Further breakdowns include by region, occupation, industry, region by occupation and age-groups.		(approximately 142,000 employees). While this is still the main basis of the ASHE survey, this sample is supplemented by additional samples drawn from the Inland Revenue PAYE register in April – to cover employees that have either moved into the job market or changed jobs between the time of selection and the survey date – and drawn from the Inter-Departmental Business Register for businesses registered for VAT but not registered for PAYE – to cover businesses which do not have employees above the PAYE threshold.	
General Household Survey (GHS)	The main aim of the survey is to collect data on a range of core topics, covering household, family and individual information. This information is used by government departments and other organizations for planning, policy and monitoring purposes and to present a picture of households, family and people in Britain. Following a review, the GHS now consists of two elements: the continuous survey and trailers (modules included at certain intervals). The continuous survey is to remain unchanged for the five-year period April 2000 - March 2005, apart from essential changes to take account of, for example, changes in benefits and pensions. The GHS has retained its modular structure and this allows a number of different trailers to be included each year, to a plan agreed by sponsoring government departments.	Office for National Statistics (ONS)	A sample of approximately 13,000 addresses is selected each year from the Postcode Address File. All adults aged 16 and over are interviewed in each responding household.	The General Household Survey (GHS) is a continuous national survey of people living in private households, conducted on an annual basis. The GHS started in 1971 and has been carried out continuously since then, except for breaks in 1997-1998 when the survey was reviewed and 1999-2000 when the survey was redeveloped. Following the 1997 review, the survey was relaunched from April 2000 with a different design.

Whereas other individual-level sources can provide insights at the national, regional and sometimes local authority level, the Census goes much further in that it allows robust analysis to be carried out at ward/postal sector level and, in some cases, at the level of the Enumeration District (that is, geographic areas assigned to each Census collector comprising specific parts of wards/postal sectors).

However, the geographical richness of the Census comes at a cost. One such cost is the relative 'thinness' of the data since a wide range of themes is covered very briefly. In 2001, ten questions were asked about the household and 34 questions were asked about each individual it comprised. These covered the following: age and sex; religion and ethnicity; birthplace and migration; qualifications and employment; occupation and industry; families and households; and homes and cars (see Dorling and Thomas, 2004).

Another drawback with the Census is that once the data are gathered detailed analysis is not always possible because of the anonymity safeguards surrounding data collection. Census data consist of *counts* of individuals with particular characteristics. Each individual is not represented as a single *case*. This is to protect the anonymity of individuals, since the Census presents data on small areas and hence there is a danger that particular respondents can be identified if all of their characteristics are known. For the policy analyst, however, presentation of the data as counts limits the analyses possible. This makes it impossible to undertake statistical analysis based on the characteristics of each case, such as testing the likelihood *ceteris paribus* that women are more likely than men to do particular types of work or have a particular type of qualification.

The solution is to give researchers access to census extracts which contain individual-level records for a small proportion of the population but for larger geographical areas, thereby protecting the anonymity of respondents (Marsh, 1993). These are referred to as the Samples of Anonymised Records (SARs). They are available for both the 1991 and 2001 Censuses. The SARs comprise a separate record for each individual, similar to the sort of data obtained from a sample survey. However, the sample size is much larger than most surveys, thus permitting analysis of small groups

and sub-national areas. The SARs cover the full range of Census topics including housing, education, health, transport, employment and ethnicity. In the 2001 SAR, further additional variables include religion, whether the respondent is a carer, amended ethnic group categories and more detail on qualifications (Hakim, 1995, 1998; Li, 2004).

However, the speed with which the SARs become available for analysis lessens their policy usefulness. The 2001 SARs, for example, was not available until November 2004. Furthermore, a gap of ten years between Censuses makes the geographically rich, but the limited employment and skills data they contain are of doubtful use to government agencies such as the UKCES who are required to report annually on progress towards making the UK a world leader in employment and skills.

Other official individual-level surveys provide speedier and more immediately useful LMI to policy-makers. These are typically carried out more regularly than the Census and comprise large samples of the population. Furthermore, rather than a household member filling in a form on behalf of others with whom they live, individual-level surveys are administered in the home by a trained market researcher who asks questions and records the information provided on a laptop. The most relevant and useful source of information on employment and skills in the UK comes from the Labour Force Survey (LFS) – a survey of 60,000 households containing around 150,000 individuals. This survey meets all three of the criteria recently set out by the National Statistician for good quality statistics:

> '*Timely* statistics are required because policy makers are taking decisions which affect the economy with a lag. The earlier they get estimates of the current and recent position of the economy, the better informed their decisions should be. Of course, timely estimates also need to be *reliable* in the sense that they are not subject to large revision. Economic statistics also need to be coherent, that is, *consistent* with each other and other information' (Dunnell, 2008: 19; my emphasis).

The LFS has been transformed in recent years to meet all of these criteria. In 1991, it was regarded as a rather 'obscure' annual survey, published in isolation from

other sources of labour market evidence a year or so after the fieldwork was completed – in the 1980s the lag was sometimes as long as two years (Werner, 2006: Table 1). However, today it is at the forefront of media attention each month as it is regarded as providing the most up-to-date and reliable measure of the health of the labour market. For example, its estimates of the level of unemployment over the last three months are typically used in preference to the lower but more unreliable administrative measure of the number people claiming unemployment-related benefits. This data feeds directly into policy deliberations such as the Bank of England's Monetary Policy Committee's monthly interest rate setting meeting. At the heart of this transformation has been the increased regularity with which the LFS has been carried out, the enlargement of its sample, and the use of computer-assisted personal and telephone interviewing.

The first LFS in the UK was carried out biannually from 1973 until 1983 and then every year from 1984 to 1991. Against a backdrop of mounting criticism of administrative measures of unemployment, the case for a survey-based measure of unemployment became ever more pressing (see Thomas, 1999; Nickell, 1999). The launch of quarterly LFS in 1992 and the use of an internationally agreed definition of unemployment assuaged much of this criticism. In addition, other employment and skills data also became available at three monthly intervals as a by-product (although the entire questionnaire is not repeated every quarter – e.g., not all of the location work questions are repeated, see Felstead *et al*., 2005b, 2005c; Felstead, 2009b).

Moving to a quarterly survey also ushered in changes in survey design and administration. For example, the quarterly LFS is designed so that there is an element of overlap between survey quarters. Each quarter's sample is made up of five waves, each consisting of about 12,000 households. Every sampled address in a wave is interviewed in five successive quarters, such that in any one quarter, one wave will be receiving their first interview, another their second and so on Thus, there is an 80 per cent overlap between successive quarterly surveys. Certain information is only collected at first interview – for example, date of birth and ethnic origin. Some data are collected at every interview. Yet other questions are posed at specific intervals. Furthermore, some

information is gathered at particular moments in the wave cycle – income data, for example, are collected at first and last interviews.

In addition, the move to a quarterly survey coincided with another shift – for the first time in a major government, the sponsors moved away from form filling in favour of computer-assisted personal and telephone interviewing (known as CAPI and CATI). This reduced fieldwork costs, enhanced data quality and allowed LFS interviewers in the field to enter respondent data directly into their laptops, hence speeding up the process of data collection. The initial aims of the quarterly survey were realized when the first results of the spring 1992 survey were published by the (then) Employment Department just three and a half months after the fieldwork had ended, much faster than the lag of a year or more between the reference period of previous annual surveys and the publication of results. In 1998 the reporting cycle was speeded up still further with the monthly publication of unemployment and other estimates from the LFS based on three-month rolling averages. In the same year, a European Union Regulation stipulated that all member states supply quarterly data to Eurostat, the EU's Statistical Office, hence providing allowing the UK to position its employment and skills profile against those of other member states.

The quarterly LFS had been intended to be a source of national and regional labour market data. For lower level geographies, the sample sizes proved too small for robust analysis. However, the design of the quarterly LFS did allow a partial solution to this problem. It was designed such that each quarter's data was made up of five equal waves, one of which was added each quarter and one of which dropped out. By adding together the households in waves 1 and 5 across four successive LFS quarters, an annual dataset could be compiled. This included all interview data collected over a 12 month period. The sample included data from eight waves carried out in the same year compared to the five waves which comprised a quarter. Rearranging existing data in this way meant that the sample size – of what was called the Local Area Labour Force Survey (LLFS) rose proportionately – thereby allowing finer geographical analysis, albeit only on an annual basis.

Building on this administrative solution, the Skills Task Force recommended that sample sizes be increased with more interviews (DfEE, 1999: 91). By 2004, samples were boosted in England, Wales, Scotland and Northern Ireland in response to this recommendation. However, the size of the boosts varied with Wales boosting proportionately more of its sample, while areas such as London were relatively poorly represented (Werner, 2006: Table 3). To reflect the enhanced nature of the resulting dataset, it changed it name from the LLFS to the Annual Population Survey (APS). Sub-regional analysis is often based on this source (see Wosnitza and Walker, 2008).

Nevertheless, whether the information gathered by the LFS nationally and the APS for regions and smaller geographical areas is sufficient to track the trajectory of *all* the important aspects of employment and skills as well as measure progress towards becoming a world leader is debatable. This been recognized by a number of government inquiries. The recent HM Treasury review of economic statistics, for example, urged ONS and others 'to examine the scope to improve information on skills from the LFS' (Allsopp, 2004: 15). It is, therefore, timely that ONS is conducting a review of the use and structure of the LFS. Currently, ONS is consulting with users and stakeholders on the extent to which the LFS meets their needs (ONS, 2008a). The concerns of UKCES will be central to this review.

This paper identifies three specific gaps in the employment and skills information base which merit consideration. Some of these gaps are addressed by the unofficial surveys reviewed below and from which lessons (and tried and tested questions) may be learned. However, these surveys are limited by their sample size and the frequency with which they are carried out, so failing at present to provide sufficiently robust and timely LMI.

The first gap is the emphasis on measuring the stock of skills (typically proxied by qualifications) to the neglect of information on the demand for skills as experienced

by individuals. A similar point was made by the United Nations in its review of labour statistics. It observed that:

> 'The labour market framework as it stands concentrates mainly on the labour supply elements of the system. These factors are mainly measured through labour force surveys and include the characteristics of people … The demand side of the framework tends to be measured through a range of administrative sources, supplemented with information from a range of employers and business surveys. The link between the supply and demand elements of the labour market has, over time, become … a higher priority issue in many countries' (Barham, 2008: 50).

While there is no denying that measuring the stock of qualifications held by the workforce in the UK primarily using individual-level datasets such as the LFS has highlighted one aspect of the skills story, the demand side has not been fully integrated into such an analyses. International comparisons, therefore, have identified the strengths and weakness of the UK's educational system. On the plus side, its strength lies in the production of graduates – approaching a quarter of the population now have qualifications above National Vocational Qualification (NVQ) level 3, a proportion which has more than doubled over the last decade. However, the UK has proportionately more people with low qualification levels than many of its major comparators and is ranked 18th across the Organisation for Economic Co-operation and Development (OECD) on this measure. Five million people have no formal qualifications at all. It also has a smaller than average proportion of people with intermediate-level qualifications which puts it 20th out of the 30 countries in the OECD (HM Treasury, 2005: 40, 43).

This evidence focuses exclusively on the supply of skills as proxied by qualifications and is therefore of crucial importance for meeting the Leitch targets of 'becoming a world leader in skills by 2020, benchmarked against the upper quartile of the OECD … Progress towards world class is best measured by the number of people increasing skills attainment' (HM Treasury, 2006: 3-4). Similarly, this measure is often used to compare regional economic performance within the UK (Wosnitza *et al*., 2008).

However, we have surprisingly little evidence on the use to which these qualifications are put to get and do work. The best evidence we have on the utilization of qualifications are individual rates of return from the possession of different levels and types of qualification. However, this is a labour market outcome based on the assumption that individuals use the skills they acquired while studying. The LFS, then, does not actually ask individuals directly about any of the skills they use at work or any other proxies about the skill level of the jobs they do.

The only indirect indicator of the skill level of jobs collected by the LFS is the classification of jobs according to its title, the type of work carried out most of the time and the tools/materials used. This information is used to classify jobs into the Standard Occupational Classification (SOC) system. The resulting nine broad occupational categories reflect different 'skill levels' based either on the level of formal qualifications required for a person to get a particular job or the duration of training and/or work experience normally required for occupational competence (OPCS, 1990: 3; Elias, 1995: 43-45). The changing proportion of jobs allotted to each of the nine groups has been used as evidence of changes in skill demand. Furthermore, future skills demands have been forecast based on this evidence (e.g., Wilson *et al.,* 2006). However, this method has the drawback that the skills within occupational groups may also be changing over time (Kelleher *et al*., 1993). For example, the rising proportion of high level SOCs need not necessarily indicate rising skill levels since these SOCs may demand lower level skills than in the past. As a further complication, the basis on which occupations are classified has changed, so there are breaks in the series in 1990 and 2000. SOC2000 was introduced because SOC90 had become outdated. These revisions included tightening the definition of managerial occupations and moving jobs between major groups to reflect their repositioning in the skills hierarchy. New occupations were introduced in the fields of computing, environment and conservation, and customer service occupations (such as call centre operators). Most of the major groups were re-named and all have a different composition in terms of job titles compared with their SOC90 counterparts. Moreover, analysis of changes in the occupational profile does not generate quantitative information about what skills are in greatest demand. Yet, the Skills Task Force

commented that policy-makers needed information on 'changes in the competences and skills required within occupations so that standards and qualifications can be revised in line with evolving requirements' (DfEE, 1999: 84).

A second data gap in official LMI is on the nature and quality of training. This was recognized by the Skills Task Force in 1999 but despite lamenting that 'the information on the nature of past training is also limited' (DfEE, 1999: 91), this gap remains unplugged, at least by official surveys. We know, for example, little about the quality of training in terms of its outcomes as measured by its impact on skills, whether it triggers a pay rise, the specificity of the skills (if any) it produces and whether it enhances the experience of work. We know even less about the nature of informal learning and what is actually learned. Attempts have been made to capture data on some of these issues. However, they have – so far at least – been restricted to smaller scale surveys than are typical of official surveys reviewed in this section (see below).

A third and final gap relates to an issue beyond simply raising the proportion of the available workforce in paid employment – the government's aspiration is for an 80 per cent employment rate – to the notion of improving the quality of jobs as well. This issue has been given particular prominence in European debates – and hence some of the international surveys reviewed in the penultimate section of this paper provide useful evidence on this issue. Pay is an important aspect of job quality and figures prominently in what employees look for in a job; according to a recent survey over a third rated 'good pay' as an 'essential' aspect of an attractive job (Felstead *et al*., 2007: Table 8.1). The UK has a comprehensive source of national information on this aspect of job quality. This covers: earnings levels for different types of worker and for men and women; the components of earnings (basic pay, overtime and incentive payments); and the distribution of earnings. The source of such information is the Annual Survey of Hours and Earnings (ASHE) which replaced the New Earnings Survey (NES) in 2004. Both are based on 1 per cent samples of employees with information on earnings and hours provided in confidence from employers, hence they contain individual-level data. ASHE provides improvements to the quality of the data obtained in several ways: coverage of

employees is wider; median figures are published instead of averages and therefore extreme outliers do not skew the results presented; and data are imputed where no response is given. The resulting data has been used to track movements in the gender pay gap (e.g., Leaker, 2008), the changing pattern of low pay (e.g., Sunley and Martin, 2000; Ormerod and Ritchie, 2007) and changes in earnings inequality (e.g., Dodds, 2006).

Pay is just one aspect of job quality. Jobs differ in other ways too (although, for some, this can be summarized in an index of job desirability, see McGovern *et al*., 2007: chapter eight). Traditionally, these differences are divided into extrinsic and intrinsic characteristics. The former typically includes pay, working time, work-life balance, promotion prospects and security. The nature of the job, the speed of work, the ability to use initiative and relationships with others are aspects of work that are typically regarded as intrinsic features of a job. These aspects feature in the European Commission's aim of 'delivering stronger, lasting growth and creating more and better jobs' (CEC, 2005: 7) and were reflected in the ten dimensions of job quality set out in the European Employment Strategy (EES) (CEC, 2001). While there is some debate as to the means by which member states can deliver better as well as more jobs (heightened most recently by the global downturn), the issue of job quality remains a key element of the ESS (Dieckhoff and Gallie, 2007).

Its importance in enhancing the effectiveness of the labour market was recognized by the Skills Task Force:

> 'To make informed choices about their future careers …. individuals ideally should have information on: the general characteristics of work in different broad families of occupations … the nature of work in particular occupations (DfEE, 1999: 81).

However, as Beatson (2000: Box 2) observed there is no official data on the characteristics of jobs in terms of what they entail, the intensity of work and the nature of relationships at work. These issues are addressed in some of the European surveys reviewed below, but are limited in other ways.

There are other official individual-level surveys that may, on occasion, cover issues of relevance to employment and skills issues. The General Household Survey (GHS), for example, includes particular modules from time to time, but is usually confined to carrying questions on fertility, housing, health and illness, car ownership, employment, education, smoking and drinking, income, and demographic information about household members including migration. The great merit of the GHS is that it covers a wide range of topics, but this lessens its usefulness for employment and skills analysts. However, its modular structure could be used to trial questions new to official surveys.

OTHER INDIVIDUAL-LEVEL SURVEYS

In addition, to individual-level surveys which are regularly carried out and are funded by the ONS, there are a number of others which are typically carried out less frequently with funding from a mixture of different sponsors. The list presented in Table 2 is only illustrative of such surveys (it does not, for example, include cohort studies of those born on a specific date, those of a particular generation or those leaving a certain type of institution). While these surveys do feature in official reports on employment and skills, they receive rather less prominence than results based on surveys carried out under the guidance of ONS. There are at least two possible explanations for this observation. First, the relative infrequency of non-ONS surveys means that the results they produce quickly become out of date, and therefore they are of less relevance to those seeking evidence that is timely and up-to-date. Secondly, non-ONS surveys are often based on comparatively small sample sizes which fall short of ONS expectations for robustness and reliability (Dunnell, 2008: 19). Nevertheless, this paper argues that they do provide important insights into features of the labour market that are not always adequately covered by official surveys. These include: the skills content and demands of jobs; the nature and consequences of training; and the quality of jobs.

Table 2:
Employment and Skills Data: Individual-Level Sources –
Other Surveys

Survey	Focus	Funding Source	UK Coverage	Frequency
Workplace Employment Relations Survey (WERS)	The purpose of each survey in the series has been to provide large-scale, statistically reliable evidence about a broad range of industrial relations and employment practices across almost every sector of the economy in Britain. This evidence is collected with the following objectives in mind: to provide a mapping of employment relations practices in workplaces across Britain; to monitor changes in those practices over time; to both inform policy development and permit an informed assessment of the effects of public policy; and to bring about a greater understanding of employment relations as well as the labour market. To that end, the survey collects information from: managers with responsibility for employment relations or personnel matters; trade union or employee representatives; and employees themselves. Both the 1998 and 2004 surveys collected data from individual employees.	The survey is jointly sponsored by the Department of Trade and Industry, the Advisory Conciliation and Arbitration Service (ACAS), the Economic and Social Research Council and the Policy Studies Institute.	The sample of employee questionnaire was completed by 28,237 in 1998 and by 22,451 in 2004. This sample was drawn from workplaces who participated in the management-level survey of workplaces with five or more employees (in 1998 the survey focused on those with ten or more employees).	1980, 1984, 1990, 1998 and 2004 (albeit under slightly different names), but only in 1998 and 2004 were the views of employees collected.
Skills Survey (SS)	This series provides a high quality representative series of surveys focused on individuals living in Britain (and more latterly, the UK). The series gathers information on the skills used at work via survey questions directed at workers themselves. It uses several different measures of work skills, some of which have been used in previous surveys (such as SCELI and EIB, see below).	Mixture: originally ESRC only; then DfES only; now consortium of funders with ESRC as the largest funder in 2006.	1997: Britain; 2001: Britain; 2006: UK (including the Highlands & Islands), with boosts in Wales, Scotland and the East Midlands). Sample sizes vary: 2,467 in 1997: 4,470 in 2001; 7,787 in 2006. It includes those in paid work aged 20-60 (in 2006 this was raised to 65).	1997, 2001 and 2006 (with instruments carried from EIB in 1992 and SCELI in 1986).
Working in Britain (WIB)	A central aim of the WIB was to make comparisons over time in the changing nature of work and the employment relationship. It therefore replicated many of the questions asked by EIB of respondents in 1992 (see below).	ESRC	It covered employees and self-employed working in Britain in 2000 aged between 20 and 60. All interviews were conducted between June 2000 and January 2001. A total of 2,466 interviews were completed.	2000 (with instruments carried from EIB in 1992).
Employment in Britain Survey (EIB)	Designed to provide a representative picture of the nature of work and the employment relationship in the early 1990s.	Co-funded by an Industrial Consortium, the Employment Department, the Employment	Two surveys: (a) 3,869 workers aged 20 to 60 in Britain; and (b) 1,003 people who were unemployed at the time of interview. The survey was designed to be representative of	1992 (with instruments carried from SCELI in 1986).

		Service and the Leverhulme Trust.	Britain.	
Social Change and Economic Life Survey (SCELI)	SCELI focused on six local labour markets – Aberdeen, Coventry, Kirkcaldy, Northampton, Rochdale and Swindon. In each locality, four surveys were carried out: the Work Attitudes/Histories Survey; the Household and Community Survey; the Baseline Employers Survey; and the 30 Establishment Survey. The former was pivotal since it provided the sampling frame for other the surveys. It focused on people's past work careers, their current experience of employment, attitudes to trade unions, work motivation, broader socio-political values, and the financial position of the household.	ESRC	The pivotal survey comprised 6,111 interviews with workers aged 20-60.	1986
National Adult Learning Survey (NALS)	The National Adult Learning Survey examines adult learning experiences and it was used to monitor progress towards the National Learning Targets which have now been superseded.	Initially sponsored by the Department for Education and Employment, then from 2001 by the Department for Education and Skills.	The first four surveys covered England and Wales. However, Scotland was covered for the first time in 2005. The sample includes adults aged 16 and over, irrespective of their employment status. 1997: 5,653; 2000: not published; 2001: 6,459; 2002: 6,668; 2005: 4,983.	At irregular intervals: 1997, 2000, 2001, 2002 and 2005.
Survey on Adult Participation in Learning (SAPL)	The National Institute of Adult Continuing Education (NIACE) has carried out a Survey of Adult Participation in Learning in the UK on annual basis since 1999. On occasion, the survey has been supplemented with modules directed at issues of topical interest.	NIACE	Around 5,000 individuals aged over 17 years old and older participate in the survey in the first few months of each year. Interviews are carried out according to population quotas for the UK.	The survey has been carried out in the UK since 1999 and is carried out as part of a weekly omnibus survey.
British Household Panel Survey (BHPS), now known as the Living in Britain Survey (LIBS)	The British Household Panel Survey began in 1991 and is a multi-purpose study whose unique value resides in a number of factors: it follows the same representative sample of individuals - the panel - over a period of years; it is household-based, interviewing every adult member of sampled households; and it contains sufficient cases for meaningful analysis of certain groups such as the elderly or lone parent families.	ESRC	The wave 1 panel consists of some 5,500 households and 10,300 individuals drawn from 250 areas of Britain. Additional samples of 1,500 households in each of Scotland and Wales were added to the main sample in 1999, and in 2001 a sample of 2,000 households was added in Northern Ireland, making the panel suitable for UK-wide research.	The survey is carried out annually.
British Social Attitudes	Each year up to 3,600 respondents are asked about their attitudes and opinions on a wide range of issues, some of which are covered every year, others less often. For example,	The Gatsby Charitable Foundation (one of	It is based on a randomly selected sample of adults (18+) residing in selected households	Annually carried out with fieldwork taking place in spring or early summer each

Survey (BSAS)	questions can cover such topics as newspaper readership, political parties and trust, public spending, welfare benefits, health care, childcare, poverty, the labour market and the workplace, education, charitable giving, the countryside, transport and the environment, Europe, economic prospects, race, religion, civil liberties, immigration, sentencing and prisons, fear of crime, and the portrayal of sex and violence in the media.	the Sainsbury Family Charitable Trusts), government departments, quasi-governmental bodies and other grant-giving organizations.	across Britain. Up to 3,500 respondents per annum take part.	year. First carried out in 1983. Since 1985 the questionnaires have contained questions asked in up to 25 countries, as part of the International Social Survey Programme (ISSP).
Work-Life Balance Surveys (WLBS)	The Work-Life Balance Survey (WLBS) was carried out to assess the extent to which employers operated work-life balance practices, to see whether employees felt the existing practices met their needs, and to provide a baseline against which future surveys could monitor progress.	Department for Trade and Industry (DTI) and now Department for Business, Enterprise and Regulatory Reform (BERR).	Telephone interviews were carried out using random digit-dialling. Only adults in Britain of working age were interviewed who worked as an employee for an organization employing five or more employees. In 2000, 7,562 employees were surveyed, in 2003 this was reduced to 2.003 and similar numbers of employees (2,081) were interviewed in 2006.	2000 2003 2006

The Workplace Employment Relations Survey (WERS), for example, has included a survey of employees on two occasions – first, in 1998 and then again in 2004. Up to 25 employees were randomly selected from each participating workplace and were sent a questionnaire to complete. In 1998, 64 per cent of employees returned these questionnaires, while in 2004 the response rate (of those sent questionnaires) dropped a little to 61 per cent (Cully *et al*., 1998: 10; Kersley *et al*., 2004: 5). This provided information on around 28,000 employees in 1998 and around 22,000 employees in 2004. However, as a postal questionnaire it was short and concise; in 1998, 37 questions were asked in four separate sections, while in 2004, 44 questions were asked under five headings. Unlike official surveys, many of the questions posed are attitudinal and perceptual in nature as opposed to objective statements of fact.[2] Many relate to issues surrounding the quality of jobs which are covered only briefly, and by proxies, in larger and more regular official surveys (see above). For example, job tenure is sometimes used as a proxy for job security when analysts use official data (e.g., Gregg and Wadsworth, 1999), but WERS asks employees more directly about whether they feel their job is secure and whether they are satisfied or not with this state of affairs. Similarly, employees are asked about the level of autonomy they exercise at work, how work makes them feel, whether they are able to use all of their skills at work, the level of involvement they have in decision-making, the nature of relationship they have with management, how they are represented at work and how strong their connections are with the organization they work for. These aspects of employment are largely unexplored in official surveys, yet they are an important part of the 'more and better jobs' agenda espoused by the European Union and the devolved administrations in the UK (cf. the *One Wales* vision for highly skilled and high quality jobs, see Felstead, 2009a).

Similarly, over the last two decades there have been periodic academic surveys of employment and skills – often carrying these terms in their titles. These extend back to the Social Change and Economic Life Initiative (SCELI) in 1986 and Employment in

[2] In 2009 the feasibility of collecting both employer and employee data from the same workplace in eight European countries will be tested. The Measuring the Dynamics of Organisations and Work (MEADOW) project may result in a WERS-type survey being simultaneously carried out across several countries at a future date (see www.meadow-project.eu).

Britain (EIB) in 1992 through to Working in Britain (WIB) in 2000, and the Skills Surveys (SS) in 1997, 2001 and 2006. These surveys have much in common with one another since they have been carried out by similar groups of individuals and have adopted a similar set of questions to allow comparisons to be made over time. For example, the Skills Survey series asks those in work detailed questions about the demands of their jobs, the skills they use at work, the usefulness of their qualifications, the nature of their job and the character of the training they receive. While this evidence provides a useful picture national of employment and skills change over the last decade, its usefulness is somewhat limited in providing robust information on trends in the devolved countries of the UK, the regions of England and sectoral patterns. Nevertheless, the 2006 Skills Survey was boosted in Scotland, Wales and the East Midlands where sample sizes were more than tripled, doubled and almost tripled respectively (see Felstead and Green, 2008b; Felstead, 2009a; Felstead and Green, 2008c). Furthermore, the survey was extended to cover the Highlands and Islands for the first time (Felstead and Green, 2008d). Frequently this area of the UK is largely excluded from the coverage of many surveys – such as the British Social Attitudes Survey, for example – since for market research purposes the border of Britain lies south of the Caledonian Canal, hence excluding *most* of the Highlands and Islands from coverage. Furthermore, many non-ONS surveys focus on Britain and hence do not cover Northern Ireland. A boost to the 2006 Skills Survey also extended the reach of the survey to this part of the UK for the first time. Similarly, Northern Irish households were added to the British Household Panel Survey (BHPS) in 2001. Nevertheless, the numbers of interviews conducted in the devolved administrations of the UK, the regions of England and in the sectors covered by the 25 Sector Skills Councils are too small to support detailed analysis. However, inclusion of some of these questions in large and more regular surveys such as those sponsored by the ONS would provide the basis for robust, timely and a more complete picture of progress towards world leadership in employment and skills.

There have been previous (and recent) examples of question borrowing strategies of this sort in this area. The LFS, for example, carries a number of questions which seek

to uncover information about the training undertaken in the four weeks before interview. This includes the length of the episode, the location and mode of delivery, the financial costs and whether skills acquired were certified. In 2000, a new module of questions was introduced which asked respondents about their learning at work. These went beyond 'education and training as conventionally understood – viz. periods of instruction received from a teacher or trainer' (Beinart and Smith, 1998: 33) to respondents' involvement in both taught and self-directed learning. These include questions on self-study using a package of materials, receiving supervision from a more experienced colleague while doing a particular task and keeping abreast of occupational developments. This offers a slightly broader perspective on learning at work and suggests that the workplace itself offers opportunities for learning that cannot be easily provided in other venues. These ideas have their genesis in the National Adult Learning Survey (NALS) carried out in 1997, 2000, 2001, 2002 and 2005 (Beinart and Smith, 1998; La Ville and Blake, 2001; Fitzgerald *et al*., 2003; Snape *et al*., 2006) and the slightly longer running Survey on Adult Participating in Learning (SAPL) sponsored by NIACE. The latter has been carried out annually since 1999 with occasional special batteries of questions on, for example, learning at work in 2004 (see Felstead *et al*., 2005a). Similar questions also made their way into the EU's ad hoc survey on lifelong learning carried out in 2003 (*Official Journal of the European Communities*, 2002). However, their presence in the LFS was relatively short-lived with their removal in 2006. Furthermore, the data collected was never made available for secondary analysis. Nevertheless, NALS left another legacy in that the 2005 survey aligned itself with an international survey. The 2005 NALS carried questions included in the European Adult Education Survey (AES) – a poll of adults aged 25-65 conducted between 2005 and 2007 in 27 member states plus Turkey, Norway and Switzerland. The principle of international comparability, therefore, was in-built into the 2005 version of the survey, although the comparative results have yet to be published and the AES dataset has not been released for independent scrutiny.[3]

[3] For these reasons, the AES is not included in Table 3.

There are other individual-level surveys which receive high profile and provide useful analyses of relevance to policy-makers concerned with employment and skills. For example, the BHPS (now known as the Living in Britain Survey (LIBS)) asks questions about the 'training courses and schemes' individuals participated in the year before being interviewed, the type of work they are engaged in, their hours of work, what they are paid and their satisfaction levels. These questions are asked of individuals who remain in the sample for many years. However, a sample of around 10,000 individuals is small in comparison to official cross-sectional surveys reviewed above. For this reason, policy-makers rightly turn to these sources to provide more timely and robust LMI. Nevertheless, panel surveys are invaluable in tracking mobility and change as it affects individuals rather than sectors, regions or nations. For example, panel studies have been used with great effect to reveal who gets training and who does not over a number of sweeps. The results suggest that training is concentrated among more or less the same group of recipients from period to period (Green, 1999). So that those already privileged in the labour market – in terms of qualifications and pay, for example – are more likely to receive a *succession* of training episodes than those occupying less privileged positions. The National Child Development Study, which periodically surveys a cohort of individuals born in a particular week in 1958, produces a similar finding (Arulampalam and Booth, 1997). The LFS also has a limited panel element in its design – respondents are interviewed up to five times, at three-monthly intervals, with a fifth of the sample being replaced each quarter (Barham and Begum, 2007). Analysis of these data confirms that the many of same individuals are in receipt of training quarter after quarter (Machin and Wilkinson, 1995).

The LIBS (or BHPS as it was called) will be incorporated into a new enhanced longitudinal panel study of 40,000 households covering around 100,000 individuals from across the UK. The first wave of Understanding Society is planned for January 2009, but with such a multi-purpose survey interview space for employment and skills data will inevitably be limited. To economize on space, it is proposed that not all questions will be asked annually and that instead some will form part of rotating or occasional modules (Berthoud and Burton, 2008). Nevertheless, with such a large sample this may become a

useful data source for policy-makers, although to have greatest impact release of the data will need to be speedy.

Other individual-level surveys also provide useful data for employment and skills analysts, although they tend to focus on such issues only occasionally (as in the case of the British Social Attitudes Survey (BSAS)) or take a narrow focus on theme of specific policy relevance (as in the case of the Work-Life Balance Surveys). Furthermore, in comparison to the new longitudinal survey and the official surveys reviewed above, they are small with recent sample sizes as low as just over 2,000 employees.

INTERNATIONAL INDIVIDUAL-LEVEL SURVEYS

As part of membership of the EU, all Member States are required to carry out an LFS at least once a year. The survey must contain a list of common questions, use a common coding framework for the replies received and adopt agreed definitions. From this, the position of the UK in the European employment and skills league can be determined and so progress towards becoming a world leader can be assessed. However, like the LFS, the European Union Labour Force Survey (EULFS) has content limitations with little data on skills actually used at work, the nature and characteristics of training, the quality of jobs.

Several other international individual-level surveys address these limitations, albeit on smaller sample sizes and with less regularity than the EULFS (see Table 3). The quality of work, for example, has been the focal point of the European Working Conditions Survey (EWCS) since its inception in 1990. Furthermore, its content has been expanded considerably since then – from 20 questions in 1990 to almost 100 in the fourth survey carried out in 2005. Its geographical coverage has also extended as new member states have been admitted, so that in 2005 all 27 member states were surveyed in addition to Turkey, Croatia, Norway and Switzerland. On this evidence the gender and occupational segregation appear to play a greater role in shaping job content, task

Table 3:
Employment and Skills Data: Individual-Level Sources –
International Surveys

Survey	Focus	Funding Source	UK Coverage	Frequency
European Union Labour Force Survey (EULFS)	EULFS is a large household sample survey providing quarterly results on labour participation of people aged 15 and over as well as on persons outside the labour force. In all of the countries providing quarterly data the quarterly sample is spread uniformly over all weeks of the quarter.	The national statistical institutes are responsible for selecting the sample, preparing the questionnaires, conducting the direct interviews among households, and forwarding the results to Eurostat in accordance with the common coding scheme.	As for the UK LFS (see above).	Data collection began to be collected on an annual basis from 1983 up until 1998 when quarterly results have been supplied.
European Working Conditions Survey (EWCS)	Every five years, the European Foundation for the Improvement of Living and Working Conditions (Eurofound) conducts a survey of working conditions in Europe. The survey questionnaire has expanded from twenty questions in the first edition to nearly one hundred questions and sub-questions in 2005. Topics covered in the survey include working time, work organization, pay, work-related health risks and health outcomes, and access to training.	Eurofound, the European Foundation for the Improvement of Living and Working Conditions, is a European Union body. Its mission is to contribute to the planning and design of better living and working conditions in Europe to contribute to the planning and design of better living and working conditions in Europe.	The first survey in 1990 was a prototype and was based on a core questionnaire of only twenty questions. A sample of 12,819 workers aged 15 years and older were interviewed face-to-face in their homes (1,090 in each country). In January 1996 the survey was expanded to include a much wider range of issues including physical environment, workplace design, working hours, work organization and social relationships at the workplace. The survey collated data from interviews from 15,986 workers with 1,066 interviews carried out in the UK). In 2000, the EWCS covered over 21,500 workers (1,514 from the UK). In 2005, the sample comprised 29,680 respondents, with 1,058 from the UK.	The survey has been carried out four times: in 1990, 1996, 2000 (extended to cover the 10 new member states, Bulgaria, Romania and Turkey in 2001/02) and 2005 (31 countries). In the latter, the EWCS was carried out in all EU27 countries (plus Turkey, Croatia, Norway and Switzerland).

Euro-barometer	Annual survey with topics repeated at regular intervals using the same questions and same methodology. The same survey covers a number of different subjects – hence, it is an omnibus survey. Each subject area is sponsored by different Directorates of the EC who then take ownership of that module of questions (referred to as special surveys).	European Commission	In spring and autumn questions are asked of representative samples of resident members of Member States who are 15 years old and above. The regular British sample is around 1,000.	Annually carried out across the EU since 1973. Special surveys on social preciousness and exclusion were carried out in 1996 an 2001. The British samples were 1,051 and 999 respectively (551 and 459 in paid employment).
International Social Survey Programme (ISSP)	The International Social Survey Programme (ISSP) is a continuing, annual programme of cross-national collaboration. It brings together pre-existing, social science projects and coordinates research goals, thereby adding a cross-national perspective to the individual, national studies. Since 1984, ISSP has grown to 43 nations, the founding four – Germany, the United States, Britain, and Australia – plus Austria, Ireland, Hungary, the Netherlands, Italy, Israel, Norway, the Philippines, New Zealand, Russia, Japan, Bulgaria, Canada, the Czech Republic, Slovenia, Poland, Sweden, Spain, Cyprus, France, Portugal, Slovakia, Latvia, Chile, Denmark, Brazil, South Africa, Switzerland, Venezuela, Belgium, Finland, Mexico, Taiwan, South Korea, Uruguay, Croatia, the Dominican Republic, Turkey and China. The annual topics for ISSP are developed over several years by a sub-committee and pre-tested in various countries. Previous modules have included: work orientations; social inequality; and family and changing gender roles.	Each research organization funds all of its own costs. There are no central funds.	The British survey is known as the British Social Attitudes Survey (see above).	Since 1984 it has been carried out annually.
European Social Survey (ESS)	The European Social Survey (the ESS) is an academically-driven social survey designed to chart and explain the interaction between Europe's changing institutions and the attitudes, beliefs and behaviour patterns of its diverse populations. Now in its fourth round, the survey covers over 30 nations.	The survey has been funded through the European Commission's Fifth and Sixth Framework Programmes, the European Science Foundation and national funding bodies in each country.	2002/2003: 1,897; 2004/2005: 2,394; 2006/2007: 2,052 2008/2009: fieldwork to be completed in December 2009. Across three rounds there are total of 12,469 respondents across 24 countries.	It is carried out biennially. The first survey was carried out in 2002/2003, the second in 2004/2005, the third in 2006/2007 and the fourth in 2008/2009.
European Community	The European Community Household Panel (ECHP) is a survey based on a standardized questionnaire that involves	European Commission	The BHPS (see above) provided the UK component of the	1994-2001

Household Panel (ECHP)	annual interviewing of a representative panel of households and individuals in each country, covering a wide range of topics: income, health, education, housing, demographics and employment characteristic, etc. The total duration of the ECHP was 8 years, running from 1994 to 2001. In the first wave, i.e. in 1994, a sample of some 60,500 nationally represented households – approximately 130,000 adults aged 16 years and over – were interviewed in the then 12 Member States.		European Community Household Panel.	
International Adult Literacy Survey (IALS)	In 1994 eight countries took part in the first round of the International Adult Literacy Survey (IALS) - Canada, the US, Ireland, Germany, Sweden, the Netherlands, Poland and Switzerland. A further four countries, the United Kingdom, Belgium (Flanders), Australia and New Zealand participated in the second round in 1996. Nine additional countries or regions participated in third and final round (Chile, Finland, Norway, Czech Republic, Hungary, Slovenia, Denmark, Italy and Switzerland (Italian-speaking region).	Organisation for Economic Co-operation and Development (OECD)	The survey covered adults aged 16-65 living in the UK. The UK did not take part in the follow-on Adult Literacy and Lifeskills Survey (ALL) carried out in 2003.	The UK became part of the study in 1996 with a sample of 6,718 (2,907 of whom were living in Northern Ireland).
World Values Survey (WVS)	The World Values Survey is a worldwide investigation of socio-cultural and political change. It is conducted by a network of social scientists at leading universities around world. Interviews have been carried out with nationally representative samples in more than 80 countries across the world.	Local funding for each national survey is secured. In exchange for providing the data from interviews with a representative national sample of at least 1,000 people in their own society, each participating group gets immediate access to the data from all of the other participating societies.	1981: Britain, 4,743; 1990: Britain, 1,484; 1995: Britain, 1,093; 2000: Britain, 999; 2005: Britain, 1001.	A total of five waves have been carried out since 1981 making it possible to carry out reliable global cross-cultural analyses and analysis of changes over time – 1981, 1990, 1995, 2000 and 2005.

autonomy, and the ergonomic and ambient risks faced by workers than the countries in which they work (Smith *et al*., 2007).

Another dimension of job quality is the pressure under which people work. Two modules of the annual Eurobarometer were focused on this issue – a survey in 1996 and one in 2001. They asked employees directly about the extent to which they: worked 'very hard'; 'under a great deal of pressure'; did not 'have 'enough time to get everything done'; and had 'to work extra time, over and above the formal hours … to get through the work or to help out' (Gallie, 2007). Analysis of this dataset shows that work pressure is determined much more by the compositional differences of employment in each country than by different regulatory regimes. However, given the small sample sizes involved it is not possible, using this data source, to examine patterns of change within the UK whether by nation, region or sector. The 2001 Eurobarometer survey, for example, questioned 999 adults in the UK, of whom 459 were employees.

The sample sizes and regularity of other international individual-level surveys also limit their immediate usefulness, as they stand, for UK policy-makers seeking timely LMI on employment and skills. Often modules of relevance are only periodically included. For example, the International Social Survey Programme (ISSP) carries a module of questions on work orientations every eight years – in 1989, 1997 and 2005 (Clark, 2005; Green, 2008). While this provides interesting insights into the position of the UK as a world leader in terms of the quality of its employment, the sample size is too small to make within UK comparisons (by country, region or sector, for example). Similarly, the European Social Survey (ESS) provides a good yardstick against which to measure the quality of employment and skills in the UK compared to other countries. However, only standard questions about qualifications attained, school attendance and type of job held are 'core' survey questions asked every year. Questions on the skills needed for the job, the level of work pressure, job security and organizational commitment have so far only been asked once – in 2004/2005 – albeit with an expectation that they will form part of a rotating module to be repeated in the future.

Academics have also used the European Community Household Panel (ECHP) in order to examine the effect that different societal employment regimes have on the extent of training provision (e.g., Arulampalam *et al*., 2004; Dieckhoff *et al*., 2007; Dieckhoff, 2008). However, the ECHP was carried out for eight years with the last sweep of interviews carried out in 2001. More timely and more robust training data – using similar questions – can be sourced from elsewhere, most notably the EULFS.

The World Values Survey (WVS) offers the widest geographical coverage of all the individual-level surveys considered in this paper. The latest in the series contains representative samples from more than 80 countries across the world. However, the British sample in recent times has been around 1,000 and the issues covered are wide-ranging. The result is that it collects information on attitudes to work and the importance of work to general well-being from everyone taking part, irrespective of their employment status. This weakens its usefulness in tracking the quality of jobs in the UK as experienced by workers themselves and pinpointing the UK's word ranking in these terms.

At the other end of the spectrum, the International Adult Literacy Survey (IALS) has a very narrow focus but collects data across a number of countries – after three rounds it contained data on over 20 countries. Rather than using proxy measures for the skills of the population (such as the proportion holding qualifications at a particular level), IALS is based on the principle of directly testing individuals' abilities. While this is one of the most effective ways of assessing skill levels, it is also one of the most expensive. IALS is therefore pioneering in that it tested respondents directly about a limited range of particular skills – 'prose', 'document' and 'quantitative' literacy skills (Carey *et al*., 1997; OECD and Statistics Canada, 1997). This involved asking respondents to complete tasks which tested their ability to: understand and use information contained in newspapers, magazines and brochures; process information contained in documents such as tables, schedules, charts, graphs and maps; and perform everyday arithmetic by extracting numerical information from documents and applying it to complete a task successfully. Respondents were asked to complete just over 100 such

tasks which were more or less split equally between these three skills (McIntosh and Vignoles, 2000). In 2003 'problem-solving' skills were added to the list. These tested the level of analytical reasoning and were carried in the Adult Literacy and Lifeskills Survey (ALL), although the UK did not participate in this survey.

While these datasets do much to complement international studies of the stock of qualifications in different countries by providing information on some of the skills people possess, they do not measure the skills used at work, but instead focus on skills used in everyday life. To correct this deficiency, the OECD plans to launch a survey which 30 country wide survey of the skills used by adults at work. This will be carried out in 2011 under the Programme for the International Assessment of Adult Competencies (PIAAC) (OECD, 2006).

CONCLUSION

Significant improvements have been made to the quality of data collected from individual workers about employment and skills. Not so long ago, the publication of official data received little publicity, often because they were out of date by the time they were published. However, today policy-makers, commentators and analysts all wait with bated breath for their publication – witness, for example, the headlines and commentaries which now accompany the monthly unemployment figures based on estimates from a three month rolling average taken from the LFS. Even so, the Skills Task Force noted a number of failings that needed to be addressed. While progress has been made in the intervening decade to address these failings and make LMI fitter for the job, still more needs to be done.

This paper has reviewed three types of individual-level survey: those carried out in the UK under the authority of ONS, the official data collection agency; other UK surveys carried out by various bodies and supported by a number of different funders; and those conducted across a number of countries using an agreed questionnaire translated into the most appropriate language. Official UK surveys have several

advantages. Most notably, they have large samples of respondents, they are frequently carried out, the results are speedily published as headline findings, and the datasets are quickly made available for secondary analysis and independent scrutiny. However, progress towards making 'the UK a world-class leader in employment and skills by 2020' (UKCES Remit Letter, 18 March 2008) requires more data than is currently available from official sources. What they do provide is timely, reliable and robust LMI which can be disaggregated by nation, region and sector. However, assessments based on official surveys alone fail to paint a complete picture of the health of employment and skills in the UK. These gaps include direct information on: the skills content and demands of jobs; the nature and consequences of training; and the quality of jobs.

Other UK surveys as well as comparative surveys carried out across Europe and the OECD provide some pointers on the positioning of the UK on each of these measures. However, the information is not as timely, reliable and robust as official surveys, thereby limiting its usefulness for policy-makers tracking progress within the UK. Therefore, one way forward is to use some of these tried and tested questions in official UK surveys, thereby providing speedier, more precise and more detailed analyses of changes in employment and skills. However, official surveys – such as the LFS – are unlikely to carry all of the questions required. To fill the gap, the size of some of the unofficial surveys could be boosted with public funds.

Similarly, employment and skills questions could form part of the standard data collection requirements expected of re-licensed Sector Skills Councils in individual-level surveys they, and other publicly supported bodies such as RDAs, carry out. Furthermore, replicating questions used in international surveys would have the benefit of allowing periodic assessments to be made of sectoral, regional and national progress towards world leadership. This would make sector, regional, national and other publicly funded surveys comparable with: data collected in different parts of the economy; information gathered by enhanced official polls carried out across the UK; and the results of international surveys periodically carried out in several countries. Adopting such a multi-pronged strategy would lay the foundations for enhancing the coherence, reliability and

timeliness of individual-level LMI, thereby getting it fitter for the job of measuring 'progress towards making the UK world-class in employment and skills by 2020' (UKCES Remit Letter, 18 March 2008).

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