

Distr.  
GENERAL

CES/SEM.48/18  
21 May 2002

ENGLISH ONLY

---

**STATISTICAL COMMISSION and  
ECONOMIC COMMISSION FOR EUROPE**

**STATISTICAL OFFICE OF THE  
EUROPEAN COMMUNITIES (EUROSTAT)**

**CONFERENCE OF EUROPEAN STATISTICIANS**

**INTERNATIONAL LABOUR  
ORGANIZATION**

Joint UNECE-Eurostat-ILO Seminar  
on Measurement of the Quality of Employment  
(Geneva, 27-29 May 2002)

**Using a labour market framework to aid a structured assessment  
of the factors affecting the quality of employment**

Supporting paper submitted by the Office for National Statistics of the United Kingdom<sup>1</sup>

**I. Background**

1. For a number of years neither producers nor users of UK labour market (LM) statistics have had an agreed conceptual understanding of the ways in which the separate elements of LM statistics fitted together. In the middle of the 20th Century, the UK labour market could predominantly be characterised in terms of (i) men working in manufacturing industries, doing a full time job, and (ii) the unemployed finding work by registering or, later on, by claiming benefits. But nowadays the UK's labour market is far more heterogeneous. Employment is dominated by the service sector; women play a major role in the LM; flexible, "non-traditional" working arrangements are the norm, and there are multiple routes into employment.

2. As the LM has become increasingly specialised and diverse, so the task facing LM statisticians has become more and more complex. In order to ensure that the most important LM phenomena can be measured effectively, it became clear that it was necessary to develop a conceptual model of how the LM works, and then to look at how suitable the existing National Statistics are for the purposes of measurement and description within this model. The framework to be introduced for LM statistics uses a type of supply-demand model called a labour accounting system. Such an approach has wide international acceptance, including by the International Labour Organisation (ILO).

---

1 Paper written by Richard Laux and Catherine Barham.

3. In line with the definition given above, people supply their labour to employers. Those not in work, both those who satisfy the internationally-agreed definitions of unemployment, and those defined as economically inactive (for example, they are not looking for work) are potential labour suppliers. The demand side is represented by employers, who parcel up the work they require to be done into individual posts. The supply and demand sides meet at the point where someone fills a post – this is their job, for which they receive a wage. At any point in time some posts are not filled – new posts are created, job-holders leave and it takes time to replace them – so the post is vacant. Hence the demand side is represented by jobs and vacancies.

4. This distinction between supply and demand is central to the following articulation of the factors that constitute "the quality of employment". This paper covers how the use of the new Framework for LMS will aid in a structural assessment of the factors affecting the quality of employment.

## **II. What is job quality?**

5. The Labour Market framework gives a conceptual basis for looking at labour market supply and demand issues in relation to quality of employment. On a simplistic level, the distinction between supply and demand can be broken down into factors relating to workers and those relating to employers. The aim of this paper is to unpick some of these relationships to see whether or not this distinction between the needs of employers and those of workers adds value to the 'quality of employment' debate.

## **III. What factors contribute to the quality of employment for workers?**

6. Much has been written in recent years about a variety of issues which could be seen as relating to job quality, but probably the most comprehensive assessment of factors has been carried out by Beatson (see references – LMT: job 'quality' and job security). In this paper, Beatson identifies a number of key factors relating to quality of work and makes a distinction between job characteristics which are 'extrinsic' such as pay, hours worked, job security and work/life balance policies, and those which could be considered to be 'intrinsic'. These include factors that are hard to measure in conventional surveys, such as indicators of job content, job intensity and relationships with others in the work environment. A breakdown of the possible sources of information on each of these indicators is included in Annex A. Beatson concludes that it is not possible to rank jobs in terms of 'quality' as defined by a set of job characteristics due to the individual level decisions people make in assessing the relative importance of combinations of these characteristics. As such, Beatson argues that quality of employment is not something that can be described scientifically or objectively.

7. While there is no doubt that a measure of quality of employment is behavioural in nature and therefore not as easily quantifiable, the same could be said for a number of other labour market indicators, such as the ILO definition of unemployment. Although the method for measuring this is clearly defined in terms of whether people were looking for work in the last four weeks and were ready to start work in the next two, the way people answer these questions are, by their nature subjective. For example, one person's view of whether or not they were looking for work in the four weeks before interview may well be very different from the next person in terms of what constitutes job search. It is the same with job quality to a certain extent and the challenge is to establish a measurement tool which captures some of this subjectivity.

8. Job satisfaction is often used as a measure of individual well-being and many social scientists consider it to be a good proxy indicator of job quality. Given Beatson's conclusions about the difficulties with making value judgements about the relative merits of job characteristics for individuals, a self-defined overall satisfaction measure would go some way towards achieving this goal. Examining the potential merits of each individual characteristic is of no value independently due to the personal nature of how

these combine to impact on job quality. As a result, a more plausible method of attempting to measure quality from the point of view of a worker would appear to be the identification of a suitable summary measure, such as job satisfaction.

9. Job satisfaction has been shown to be correlated with levels of absenteeism and productivity, which would indicate that it is not purely a random subjective measure. But what is it which constitutes job satisfaction and is it possible to measure this? Locke defined it back in 1976 as 'a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences'. According to various other commentators, job satisfaction also depends on the individual's expectation, needs (physical and psychological) and values. Higher job satisfaction is therefore achievable through improvements in the objective aspects of the job, through reduced expectations or desires, or a realignment of values so that those which are not so positive are downplayed and visa versa.

10. So is it possible to measure job satisfaction from survey data? Clark used data from the British Household Panel Survey, which has included a number of questions relating to job satisfaction since 1991, to look at elements in more detail. He found that average scores for job satisfaction were higher for women, older workers and those with lower levels of education. One could argue that these are all correlated with different levels of expectation, or with more preferable labour market outcomes, and as such do not contribute much to the debate, but in addition to this a number of job-specific characteristics were found to be negatively related to job satisfaction. These included long hours, large establishments, union membership and jobs without promotion opportunities.

11. Clark also found a gender differential whereby women have higher levels of job satisfaction than men. This difference does not appear to be accounted for by the different jobs that men and women do, or the different work values. The conclusions drawn from these findings are that women have lower expectations of work than men, a hypothesis which is borne out by the finding that these differences disappear when looking at younger age groups and those in higher educated professions.

12. These findings lead us to consider whether it is possible to identify and subsequently measure a number of specific job characteristics which have a disproportionate impact on job satisfaction or job quality for workers. There will obviously be differences in levels of satisfaction for certain groups of individuals but it may be possible to categorise these into groups relating to a number of key factors, such as life cycle stages and degree of skills. Is it true, for example, that the age-related pattern with job satisfaction can be explained by the fact that at older ages, people tend to move into jobs with more desirable characteristics than those at younger age groups? Similarly, can variations in job satisfaction be explained by variations in expectation related to level of education? If these analyses could reduce the variation in average job satisfaction scores as a proxy for job quality, then it could well be a first step towards understanding what job quality really means for workers.

13. One issue which has become increasingly popular in the literature around quality of work is that of work/life balance, which Beatson classifies as an extrinsic characteristic. This refers to the 'balance' that is presumed to exist between paid work and the lives we lead outside our jobs. The issue behind this concept is that limitations need to be put on the amount of time we spend on our jobs in order to maintain levels of health, family-life and other interests given the intensity of work and levels of stress which are said to have increased over recent years. A number of policies have also been introduced which address aspects of work/life balance, stemming from acceptance of the EU's social directives in this area. These include employer provision of so called 'family-friendly' policies, such as flexible working hours, the possibility of working from home and the provision of adequate maternity leave. These contribute in various ways to overall job satisfaction, although there appears to be a strong relationship between occupational class and provision and take-up of these sorts of policies which need to be borne in mind when measuring levels of job satisfaction.

14. From the employers' point of view, the question is how far can work/life balance policies be introduced before there is an impact on output and productivity. In most cases there appears to be a payback for companies who implement policies to improve individual's work/life balance in that individuals are more productive when in work.

#### **IV. Quality of employment for employers**

15. The vast majority of discussions relating to job quality in its various guises are focused on quality from the point of view of the employee. What is often not taken into account is what quality of employment means from the point of view of the employer. If we are interested in how the interface between employer and employee needs operates in terms of a labour market accounting system, then including this element is vital.

16. There are clearly a number of very different requirements for employers in terms of job quality. Certain aspects of work have changed fairly dramatically over recent years, including the shift from manufacturing to service industries and the introduction of the 24-hour economy which has now become the norm. There are obvious implications of this, with changes to the occupational structure of the economy, increases in part-time employment, and higher rates of female labour market participation. All these factors have come as a result of the greater 'flexibility' that employers now require to compete and achieve their objectives.

17. Any employer will have a number of skill requirements from their workforce in order to produce the desired outputs. Skill levels are often interlinked with a variety of other factors as higher skilled workers are fewer in number than lower skilled workers although in practice most employers require a mix of the two. From the employers point of view, there is a trade off between the number of people required at different levels of skills against the total cost of the workforce as higher skilled workers cost employers more. In quantitative terms, a calculation of the profit margins of the company and the cost of people resources to meet that profit would be one way of estimating this difference, at a very simplified level.

18. In addition to skills, an employer will also have certain requirements in terms of the type of posts required, for example, are they full-time, part-time or a combination of these. In reality most employers will need a mix of full-time permanent staff to ensure that there is a minimum workforce to deliver outputs, but with the essential addition of a number of more flexible posts to react more rapidly to changes in the labour market and economic situation at large.

19. Other factors desirable to employers include reliability of staff and loyalty which reduce the cost of recruitment and impact of vacant posts. These factors are linked to the concept of job satisfaction from the workers point of view which encompass some of the more qualitative, 'intrinsic' characteristics highlighted by Beatson. Issues around reliability are difficult to disentangle and may well sit at odds with some of the other requirements for an employer. Highly skilled graduates may be in demand for their innovative thinking and productivity, but the demand for their skills can turn into problems with turnover, leading to more costly recruitment and retention costs for employers. On the other hand, lower skilled workers who may be willing to stay with one employer for long periods of time are likely to have certain characteristics which may mean that they are less productive and more prone to sickness absence both of which have impact on employers.

20. Clearly a major issue is how to measure some of these factors. One fairly straightforward indicator is job turnover. This could be considered in terms of an individual level measure i.e the average number of years spent by workers with each employer, or on an aggregate level for firms. In order to get a handle on the degree of flexibility of the workforce, a further measure could be the number of employees working

part-time and on fixed-term contracts, by whether this is voluntary or involuntary. The European Commission is currently looking at developing a series of indicators for quality in work. One proposed new indicator is a measure of working time variability which looks at the variations around the most common number of hours worked per week. This includes collecting information on people working in the evening, at night, at weekends and so on, although it could be argued that this is more of a measure of quality for workers than for employers.

21. Other suggested indicators include measuring trade union density, looking at whether firms belong to employers' organisations, and the coverage of works councils and other forms of representation and involvement. The number of days lost in industrial disputes is a possible 'outcome' indicator on which data is already collected on a regular basis.

## **V. Other external factors**

22. The sections above have attempted to summarise some of the issues involved with looking at quality of work from the perspective of a worker and an employer. In addition to these, there are a number of external influences on these measurements which should be borne in mind when looking at overall measurement of job quality.

### **i) Regulation**

23. In recent years there has been an increase in the number of external constrictions which have been applied to the labour markets across Europe. Examples include the working time directive and other elements of EU legislation. These need to be looked at in detail to determine their impact on the measure in question.

### **ii) Time**

24. One issue regularly referred to in the media is the intensification of work in recent years. This is often measured in terms of hours worked but may also be related to higher levels of stress and pressure in general. Work carried out by Green looked in detail at trends in work pressure over the last two decades and concluded that a number of facets of this had indeed increased. Average hours worked have levelled off since the start of the 1980s following a long historic fall but work effort has been increasing and was greatest in manufacturing during the 1980s and in the public sector during the 1990s. She also concluded that the variety of sources of work pressure has also increased, including such things as peer pressure and pressure from colleagues which have only emerged more recently.

25. There is evidence to suggest that the rise in productivity in Britain over this period has been as a result of increases in work intensification. What is more difficult to determine is whether these changes have been led from the demand or supply side. On the supply side, one explanation could be that the changing nature of work has meant that people's jobs have become more satisfying than previously which encourages people to work harder. On the demand side, the economic situation and increasing drive to cut costs but maintain the same level of outputs could arguably be the impetus for the intensification of work.

26. Whatever the answers to these question one thing is clear: quality of work is not a static concept and is likely to vary substantially over time, both as a result of changes in demands from employers and needs of workers. This should be borne in mind when looking at measures of job quality.

### **iii) Location**

27. Differences in labour markets and economic welfare exist regionally. These will clearly have an

impact on the type and quality of employment for both workers and employers. Although there are clear variations in wage levels regionally, these are offset in the 'quality of life' equation by variations in costs of living, travel to work times and the like. Where this is not the case, the indication would be that demand for labour would be lower than supply, which would manifest itself in higher levels of unemployment. Give the low unemployment rates currently being experienced, regional differences are less of an issue than in a period of recession when these differences in labour market opportunities become more clear cut. So in terms of the measurement of quality of employment, regional distributions and the position within the economic cycle all need to be taken into account.

#### iv) Structural economic changes

28. The second half of the 20th century was characterised by economic growth driven by services (rather than manufacturing, as previously). Over and above this, there has been a huge increase in the use of ICT. In terms of job quality there are pluses and minuses in such changes but it is worth bearing in mind that job quality is an emerging concept and as such needs to be considered in the context of these wider changes.

### VI. Conclusions

29. The labour market framework creates a useful conceptual basis for looking at quality of employment from both sides of the supply/demand equation. What this brief overview of the issues has highlighted is the multi-dimensional nature of supply and demand. What is less clear is how to rectify some of the measurement issues which arise. A great deal more attention has been paid to the issue of what job quality means for workers than for employers and this is reflected in the range of possible indicators. Despite this, obtaining an overall measure of job quality for workers is complex and it may be that job satisfaction is the best way of getting to grips with the various characteristics which constitute job quality for workers. This is currently asked on the British Household Panel Survey but its introduction on some of the more mainstream surveys, such as the Labour Force Survey, would appear to be of value.

30. Job quality for employers has been less clearly defined although a number of measures currently collected could be looked at in more detail. These include measures of job turnover, absentee rates and days lost to industrial action to name a few. More work needs to be done looking in detail at the full range of factors which constitute job quality for employers to recommend a 'core' set of key indicators.

### References

Beatson M, 2000, Job quality and job security, Labour market Trends, October 2000, pp. 441-451.

Beatson M, 2000, Job 'quality' and forms of employment: concepts and the UK statistical evidence, paper for ILO/UNECE/Eurostat seminar on 'Measurement of the quality of employment', 3-5 May 2000.

Clark A, 1997, Job satisfaction and gender: why are women so happy at work, Labour Economics, 4: 341-372.

Clark A, 1996, Job satisfaction in Britain, British Journal of Industrial Relations, 34:2, pp 189-217.

Green F, 2001, It's been a hard day's night: the concentration and intensification of work in late twentieth-century Britain, British Journal of Industrial Relations, 39: 1 March 2001, pp. 53-80.

**Annex A: Data sources on job characteristics - from Beatson, LMT October 2000**

<b>Job characteristic</b>	<b>Information available from UK official statistics</b>	<b>Information available from other sources</b>	<b>Overall assessment</b>
<b>Extrinsic characteristics</b>			
<b>Financial rewards</b>	Quarterly earnings data from Labour Force Survey (LFS). Annual earnings data annually from New Earnings Survey (NES). Also contains question on occupational pension coverage. Monthly Average Earnings Index produced based on an employer survey. Basic earnings data in other major household surveys (General Household Survey, Family Expenditure Survey).	Ad hoc and periodic social surveys of individuals usually collect basic earnings data, e.g. British Social Attitudes Survey (BSAS); British Household Panel Survey (BHPS). One-off studies of coverage of occupational pensions. 1998 Workplace Employee Relations Survey (WERS) collected data from employers on non-wage benefits and earnings data from workers.	Good data on earnings (although gaps in coverage even here – especially for the low paid) but less systematic data on other forms of compensation.
<b>Working time</b>	Quarterly data from LFS on number of hours worked, paid and unpaid overtime, number of days worked, times of day worked, certain types of flexible working patterns. Annual data from LFS on paid annual leave. Basic data on paid hours from NES.	Most labour market related social surveys of individuals collect basic data on number of hours worked. 1998 WERS collected data from workers on numbers working long hours and why they did so.	Broad range of data collected.
<b>Work/life balance policies</b>	Quarterly data from LFS on whether (female) respondent has taken maternity leave. Quarterly data from LFS on working from home.	1998 WERS collected data on employer provision of ‘family friendly’ policies as well as employee take-up. A number of government sponsored surveys have collected data from employers and workers.	Reasonable range of data collected.

<b>Job security</b>	Quarterly data from LFS on job tenure, employee/self-employed status, permanent/temporary status (both self-defined).	A number of social surveys have collected <u>attitudinal</u> data on employee perceptions of job security. 1998 WERS collected attitudinal data from workers and data on business policies from employers. Turnover data also collected from businesses.	A reasonable range of data on turnover collected. Issues surrounding complex contractual relationships less well covered.
<b>Opportunities for advancement</b>	Quarterly data from LFS on whether employee received job-related training in previous 3 months and basic data about that training.	More detailed data on training available from periodic employer and employee surveys. 1998 WERS collected basic data from employers and workers. Some social surveys have asked workers directly for their assessment of promotion opportunities.	Satisfactory on training but less available on career progression more generally.



<b>Intrinsic characteristics</b>			
<b>Job content</b>	No information collected.	Some ad hoc social surveys collect attitudinal data on workers' perceptions of their job.	Limited information available.
<b>Job intensity</b>	No information collected.	1998 WERS asked workers a small number of attitudinal questions. Similar questions in a number of other social surveys.	Limited information available.
<b>Risk of illness or injury</b>	Health and Safety Executive statistics record reported fatal and non-fatal injury accidents. Annual data from LFS on work-related injuries and illnesses (self-defined).	1998 WERS collected basic injury and work-related illness data. BSAS occasionally asks questions about working conditions including exposure to various hazards. European Foundation EPOC surveys ask workers in EU Member States about working conditions.	Extensive data on injuries and illnesses although some weaknesses (HSE non-fatal injury statistics suffer from under-reporting; LFS data is self-reported). More importantly, does not measure actual <u>risk</u> involved in any particular job.
<b>Relationships with others</b>	No information collected.	1998 WERS collects data from employers, workers and worker representatives on relationships between management and workers. Similar information collected from other social surveys.	Good information on management-employee relations.