

Measuring quality of employment – The UNECE/ILO/Eurostat framework and its implementation as statistical output

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1 Introduction

The outstanding relevance of the issue of quality of employment for labour market statistics is evident for a number of reasons. (1) The appreciation of employment is one of the fundamental values, at least in western societies. There are few other activities that people spent as much time and energy on as employment. We often pass more time in company of our colleagues than with our friends and families. And most people do not really have a choice not to be employed to earn their living. Employment also provides the opportunity to identify with own activities and to socialize with others. At the same time, employment also goes along with some risks, e.g. for mental and physical health. For all these reasons quality of employment is one of the keys to quality of life in general. (2) The heterogeneity of different forms of employment has increased in recent years. In many countries, the share of employed working in atypical or non-standard types of employment has risen. Furthermore, structural economic trends often described as globalization, increased price competition, digitalization, deindustrialization and deregulation, or financialisation (for an overview, see Kalleberg 2011) had important – and sometimes paradoxical – effects on many features of employment, including working time patterns, earnings etc. (3) Some features of employment are subject to international standards. It seems obvious to include such items as elements of the study of quality of employment.

This paper introduces the UNECE/ILO/Eurostat framework on measuring quality of employment, which tries to comprehensively identify the dimensions of quality of employment and to operationalize them for the purpose of statistical measurement. After a brief outline of the overall architecture of the framework, the main part of this paper focuses on selected aspects of presenting quality of employment indicators as statistical output, like how to deal with the problem of normativity and the dissemination of indicators relating to a complex multidimensional concept.

2 Outline of the framework

The United Nations Economic Commission for Europe (UNECE), in cooperation with the International Labour Organization (ILO), and Eurostat, since many years pursues an important initiative aiming at defining a statistical framework for measuring quality of employment. As a result of the work of an UNECE Task Force chaired by Statistics Canada, a list of potential indicators on quality of employment was endorsed by the 58th Conference of European Statisticians (CES) in June 2010. Together with its approval, the CES emphasized the need for further national experiences as well as for further work particularly regarding specific operational definitions, guidelines for the computation and interpretation of the indicators and the

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recommended data sources. After further experiences were collected, the CES bureau established an Expert Group on Measuring Quality of Employment in February 2012.²

The conceptual framework defines quality of employment from the point of view of the worker. It tries to identify the dimensions that need to be taken into consideration to describe the elements of employment that affect the work life and well-being of the individual worker. This may differ from the point of view of the employer or the society as a whole. In order to identify the relevant elements, several dimensions need to be distinguished. To identify these dimensions, the role of employment for fulfilling universal human needs was taken as a starting point. The development work was informed by established theories of human motivation, like the works of Abraham Maslow, as well as earlier works on quality of work and employment, like the Decent Work Agenda of the ILO or the indicators maintained by the European Commission, and research carried out in the field of quality of working life.

The framework distinguishes seven dimensions, some of which are further sub-divided into sub-dimensions. The seven dimensions are (1) Safety and ethics of employment, (2) Income and benefits from employment, (3) Working hours and balancing work and non-working life, (4) Security of employment and social protection, (5) Social dialogue, (6) Skills development and training as well as (7) Workplace relationships and work motivation (see figure 1).

To facilitate the measurement of the seven dimensions, about 50 indicators were identified. The indicators stem from all available sources of official statistics, but the largest share can (and should) be computed on the basis of the Labour Force Survey (LFS). In the EU context, other relevant data sources include the Structure of Earnings Survey (SES), the European Working Conditions Survey (EWCS), as well as the European Statistics on Accidents at Work (ESAW). The list of indicators should be adapted according to national circumstances. Indicators deemed necessary in the specific national context should be added, while others that are not considered relevant might be omitted.

In the light of the experiences made in implementation studies carried out in many countries (see, e.g., UNECE 2010, Körner/Puch/Wingerter 2012), the Expert Group is currently reviewing and further specifying the indicators. The review of the indicators under dimensions 1 to 4 was finalised in November 2012, the review of dimensions 5 to 7 will be launched at the Seventh Meeting on Quality of Employment that will take place in Geneva from 11 to 13 September 2013. The current draft of the list of indicators can be found in the annex of this paper.

² The Expert Group comprises Azerbaijan, Australia, Canada, Finland, France, Germany (chair), Israel, Italy, Luxembourg, Mexico, Republic of Moldova, Netherlands, Switzerland, Eurostat, Eurofound, ILO, OECD, UNECE (secretariat) and Women in Informal Economy Globalizing and Organizing (WIEGO). The group has the following objectives: (i) to review and revise the conceptual structure of measuring quality of employment; (ii) to revise the set of indicators of quality of employment in order to reflect the issues that were raised at the 58th plenary session of the CES, in the country reports/publications and presentations, and during the Sixth meeting on measuring quality of employment held on 31 October-2 November 2011; and (iii) to develop operational definitions and computation guidelines (including on data sources and limitations) for quality of employment indicators.

Figure 1: Quality of employment: The dimensions and sub-dimensions of the UNECE/ILO/Eurostat framework



3 Indicators on quality of employment as statistical output

A common feature of most statistical indicator systems is that some normativity risks to be injected in the process of selecting and defining indicators. While the selection of indicators might be seen as rather straightforward, the “polarity” of the indicators (e.g. whether an increase is considered “good” or “bad”) can more problematic. In the case of quality of employment, it could directly link to implicitly or explicitly labeling “good” and “bad” types of employment. Statisticians, whose professional ethics demands to compile statistics “on an objective basis determined by statistical considerations”³ are thus faced with a classical dilemma: Providing relevant information while avoiding value judgements that should be left to the users of the data.

To make the right choices, the Expert Group was guided by the existing international standards as well as the results of several decades of international empirical research dealing with the impact of various features of employment upon human well-being. On the one hand it is obvious that statisticians cannot draw a straight line between “good jobs” and “bad jobs”, also because the impact of employment types will always be mediated by the socio-economic context and the personality of the worker. On the other hand, there was clear empirical evidence as regards the dimensions to focus on as well as the indicators to select. For some dimensions, international standards exist banning certain types of employment (like child labour or excessive working hours). Other areas, while being less covered by international standards, are still highly relevant for quality of employment. There are a rich experiences from studies in economics and other

³ European Statistics Code of Practice for the National and Community Statistical Authorities, adopted by the European Statistical System Committee, 28 September 2011, principle 6.

social sciences (for an overview, see Green 2006) as regards the impact of the various features on the worker's well-being and quality of life. On the basis of this research, the relevance of each of the indicators for quality of employment could be shown.

Still, the Expert Group tries to provide a differentiated approach for the interpretation. It does not suggest a rigid polarity between "good" and "bad", but gives detailed guidance on the aspects to be taken into account for the interpretation of the indicators. For each indicator, indicator definition sheets are currently under development. These sheets do not only define the computation of the indicator and the recommended data sources, but also contain interpretation guidelines taking into account the specific aspects of each indicator.

The approach can exemplified for the indicator "Percentage of employed persons usually working 49 hours or more per week". In this case, clear international standards exist that make reference to the threshold of 48 working hours per week (first adopted in 1919 in ILO Convention No. 1 on hours of work in industry). Also research provides evidence that working long hours can have a strong negative impact upon the work-life balance and can adversely affect physical as well as mental well-being. Some studies furthermore suggest that long working hours can have a negative effect on motivation, absence, staff turnover, and productivity and tend to increase injury hazards. At the same time, it should be noted that long working hours are perceived differently by individuals in different employment situations and in different countries. Apart from personality-related factors, the perception of long working hours is mediated, e.g., by occupation, the control over working time and rest breaks, and the type of the task. Also the differences regarding status in employment and occupation (self-employed and managers usually indicate longer working hours than on average) needs to be considered.

Another challenge for using quality of employment indicators as statistical output relates to the multidimensionality of the concept. Employment is characterised by many different traits that are linked to human needs in various ways. Multidimensionality implies that there is no hierarchy in these dimensions. Consequently, all the dimensions should be taken into consideration simultaneously. Albeit closely interlinked, the dimensions are also to some degree independent from one another, i.e. the situation in one dimension cannot necessarily be deduced from the situation in others.

Several approaches could be chosen to cope with the problem. The first and most obvious one is to present the indicators in the form of a dashboard. The advantage is that no information gets lost, and no assumptions are necessary to aggregate the information. The internet provides good opportunities to combine the dimensions and indicators so that users will quite easily get access to the overall picture. An example is the presentation of the indicators on quality of employment launched in 2011 at www.destatis.de/qoe, the web site of the German Federal Statistical Office. With the use of index cards and active web-links, users can easily navigate across the entire set of indicators (see figure 2).

Still, the set of more than 50 indicators probably exceed the capacity of most users in terms of coping with the information provided. Solutions to present the information more easily accessible have to be developed. This requirement is also confirmed by many users who do ask for a more condensed picture. This could be achieved through the construction of composite indicators, indices or the identification of key indicators. The construction of composite indicators is particularly challenging for several reasons: Conceptually, multidimensionality implies that, e.g., an index comprising all the dimensions is very difficult to interpret.

Methodologically, a number of problems need to be handled, including the weights assigned to the individual dimensions and indicators, but also the definitions of what the values “0” and “1” signify for each indicator. Despite these problems, this challenge could possibly be managed with a publicly accepted result. The feasibility could be explored at the level of the dimensions first. Regarding the problem of assigning weights, recent experiences could be used that allow the users the possibility to use their own weights.⁴

Figure 2: Presentation of Quality of Employment indicators at www.destatis.de

The screenshot displays the 'Quality of employment' interface. At the top, there's a navigation bar with 'Indicators' and a green cross icon. Below it, a horizontal menu allows selecting different dimensions: 'Income and indirect benefits from employment', 'Working hours and work-life balance', 'Security of employment and social protection', 'Social dialogue', 'Skills and training', and 'Workplace relationships and work motivation'. The selected dimension is 'Dimension 2: Income and indirect benefits from employment'. Under this, the 'Low-wage rate' is detailed with text explaining the criteria and exclusions. A sidebar on the right lists related indicators: 'Information on Dimension 2', 'Low-wage rate', 'Number of vacation days actually taken', 'Vacation entitlement', 'Staff on sick leave', and 'Health insurance coverage'. A specific data point is highlighted: 'Female, young, working as hairdressers or cleaning ladies'. The text below this states: 'Low wages were quite unevenly distributed across groups of the society and economic branches. In 2010, 27% of the women got low wages, compared with 16% of the men. One of the main reasons is that women work much more frequently part-time or in marginal employment and, consequently, receive markedly lower gross hourly wages.' A final note at the bottom reads: 'Age plays a role, too: An above-average number of young employees received low wages. 51% of'.

Another approach requiring much less development effort would be the identification of key indicators. For each of the dimensions, one or two indicators might be identified that could be used as a substitute for the entire dimension, e.g. as they concern the largest part of the population or show correlations with other indicators. While, in practice, such choices will probably be taken implicitly when releasing data on quality of employment (for a press release, some choice has to be made anyway), it remains to be seen whether it is realistic to find an international consensus regarding the identification of key indicators.

⁴ See, e.g., the OECD's better life index <http://www.oecdbetterlifeindex.org/about/better-life-initiative/>

References

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Annex: Revised draft list of Indicators for the Measurement of Quality of Employment⁵

<i>Dimension</i>	<i>No.</i>	<i>Suggested Indicators</i>
1. Safety and ethics of employment		
(a) Safety at work	1a1	Rate of fatal occupational injuries per 100,000 employed persons
	1a2	Rate of nonfatal (with lost workdays) occupational injuries per 100,000 employed persons
	1a3	Percentage of employed persons working in hazardous economic activities and occupations
	1a4	Percentage of employed persons who feel significant levels of stress related to their job
(b) Child labour and forced labour	1b1	Percentage of employed persons who are below the minimum age for work
	1b2	Percentage of employed persons below a certain age (e.g., 18 years) in “hazardous” industries and occupations (to be defined by countries)
	1b3	Percentage of employed persons below a certain age (e.g., 18 years) working hours which exceed a specified threshold
	1b4	Percentage of children working in household chores which exceed a specified threshold of hours
	1b5	Percentage of children engaged under hazardous conditions
	1b6	Percentage of employed or recently-employed migrant population who were deceived during recruitment to/by an employer
	1b7	Percentage of employed or recently-employed migrants who felt they were forced or coerced during their employment

⁵ Dimensions 1 to 4: Draft proposed by the Expert Group on Measuring Quality of Employment, 22-23 November 2012; dimensions 5 to 7: as presented to the 58th Conference of European Statisticians in June 2010 (review ongoing)

<i>Dimension</i>	<i>No.</i>	<i>Suggested Indicators</i>
(c) Fair treatment of employment		<p>For the measurement of fair treatment, users interested in the measurement of fair treatment should consider the demographic or social groups relevant given the national circumstances. It is recommended to always provide breakdowns by sex and age groups.</p> <p>Groups for whom fair treatment could be an issue:</p> <ul style="list-style-type: none"> Sex Ethnic groups Immigrants Indigenous population Persons with disabilities Age groups Geographic Regions <p>Furthermore, the following specific indicators on fair treatment should be included:</p>
	1c1	Occupational segregation (e.g. by sex)
	1c2	Pay gap between groups (e.g. Gender pay gap)
	1c3	Percentage of employed women in managerial occupations (ISCO-08 major group 1)
2. Income and benefits from employment		
(a) Income from employment	2a1	Mean nominal monthly / hourly earnings of employees (local currency)
	2a2	Percentage of employees with low pay
	2a3	Nominal monthly / hourly earnings of employees by deciles (local currency)
	2a4	Employment-related income of self-employed by deciles (local currency)
(b) Non-wage pecuniary benefits	2b1	Percentage of employees entitled to paid annual leave
	2b2	Mean number of days of paid annual leave per year to which employees are entitled
	2b3	Mean number of days of paid annual leave used per employee per year
	2b4	Percentage of employees entitled to paid sick leave
	2b5	Mean number of days of paid sick leave per year to which employees are entitled

<i>Dimension</i>	<i>No.</i>	<i>Suggested Indicators</i>
	2b6	Mean number of days of paid sick leave used per employee per year
	2b8	Percentage of employees with supplemental medical insurance plan
3. Working hours and balancing work and non-working life		
(a) Working hours	3a1	Mean weekly hours usually worked per employed person
	3a2	Percentage of employed persons usually working 49 hours or more per week
	3a3	Percentage of employed persons working few hours per week involuntary (Involuntarily part-time)
	3a4	Employment by weekly hours usually worked (quintiles)
	3a5	Percentage of employed persons working more than one job
(b) Working time arrangements	3b1	Percentage of employed persons who usually work at night
	3b2	Percentage of employed persons who usually work in the evening
	3b3	Percentage of employed persons who usually work on the weekend
	3b4	Percentage of employees with a flexible work schedule
(c) Balancing work and non-working life	3c1	Percentage of parents receiving maternity/ paternity/ family leave benefits
	3c2	Percentage of women, resp. men aged 20-49 years who are employed with and without children under compulsory school age
	3c3	Percentage of employed persons whose working arrangements offer the possibility to work at home
	3c4	Percentage of households with at least one employed parent with access to child care
	3c5	Mean duration of commuting time between work and home
4. Security of employment and social protection		
(a) Security of employment	4a1	Percentage of employees 25 years and older with fixed term contract
	4a2	Precarious employment rate ^(experimental)

<i>Dimension</i>	<i>No.</i>	<i>Suggested Indicators</i>
	4a3	Percentage of employed persons over a certain age (e.g. 25 years) whose number of years of tenure at the current employer is (1) < 1 year, (2) 1 - 5 years (3) 5 - 10 years and (4) ≥ 10 years
	4a4	Percentage of employed persons who are own-account workers
	4a5	Percentage of self-employed workers with only one client
	4a6	Informal employment rate (experimental)
	4a7	Perceived job security (e.g. percentage of employed persons who state that they might lose their job in the next six months)
	4a8	Percentage of persons employed via a temporary employment agency
	4a9	Percentage of employees without formal contracts
(b)	Social protection	
	4b1	Percentage of economically active population contributing to a pension scheme
	4b2	Percentage of employees covered by unemployment insurance
	4b3	Mean unemployment insurance payment as a percentage of mean earnings

Dimensions 5 to 7 as presented to the 58th Conference of European Statisticians in June 2010 (review by the Expert Group ongoing)

5. Social dialogue

Share of employees covered by collective wage bargaining

Share of enterprises belonging to employer organisations

6. Skills development and training

Share of employed people who received job training within a period of time (e.g., the last 12 months)

Share of employed people who received job training by type of job training (e.g. job-related, done on one's own initiative)

Share of employed people in high skilled occupations

Share of employed people who have more education than is normally required in their occupation

Share of employed people who have less

education than is normally required in their occupation

- 7. Workplace relationships and work motivation
 - (a) Workplace relationships
 - Share of employed people who feel they have a strong or very strong relationship with their co-workers
 - Share of employed people who feel they have a strong or very strong relationship with their supervisor
 - Share of employed people who feel they have been a victim of discrimination at work
 - Share of employed people who feel they have been harassed at work
 - (b) Work motivation
 - Share of employed people who are able to choose order of tasks or methods of work
 - Share of employed people who receive regular feedback from their supervisor
 - Share of employed people who feel they are able to apply their own ideas in work
 - Share of employed people who feel they do "useful" work
 - Share of employed people who feel satisfied with their work
-