



MEASURING AND ASSESSING JOB QUALITY

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This paper presents the OECD Framework for Measuring and Assessing Job Quality developed jointly by the Employment, Labour and Social Affairs Directorate and the Statistics Directorate of the OECD as part of a broader EU-supported project and describes its links to the broader well-being agenda pursued by the OECD. The approach to job quality taken is explicitly multi-dimensional and defined in terms of earnings quality, labour market security and quality of working environment. The paper then discusses measurement choices and indicators selected for each of the three dimensions of job quality, highlighting the main limitations on the data front. Finally, the paper documents job quality across OECD and non OECD countries as well as across socio-economic groups for which data are available.

Keywords: well-being; indicators; working environment; OECD.

1. The importance of job quality in the policy debate

1. Having a job is an important determinant of people's well-being while, conversely, unemployment, under-employment and employment in precarious and unstable jobs are widely recognised as a source of distress. At a time where the world economy is yet to recover from the financial crisis, job creation remains a primary concern for policy makers around the world. However, focusing exclusively on *how many* jobs an economy generates provides only a partial perspective on the challenge confronting policy makers, since people's well-being depends crucially on *how good* their jobs are. Furthermore, different aspects of job quality can be important drivers of increased labour force participation, productivity and aggregate economic performance. Hence, when assessing how policy and institutions can promote job-rich economic growth, it is important to look at both the quantity and quality of the jobs created.

2. In recent years, substantial progress has been made with respect to the definition and measurement of job quality (ILO, 2012, UNECE, 2016 and Eurofound 2012a). Overall, all these initiatives represent major steps towards better conceptualisation and measurement of job quality. However, more efforts are needed to develop an *actionable* framework to assess and monitor job quality, which would be multi-dimensional and flexible enough to be applied in various country contexts and across socio-demographic groups. Most of the existing international frameworks tend to cover too many dimensions of a different nature (i.e. drivers and outcomes variables), which make their use for policy intervention and evaluation difficult or inappropriate.

2. The OECD Job Quality Framework

3. What makes a quality job? Job-quality is an inherently multi-dimensional concept that refers to those job characteristics that contribute to the well-being of workers. Building on existing work pursued by the academic community and other international organisations, the OECD Job Quality Framework

identifies three key and complementary dimensions of employment that capture the contributions of, respectively, earnings quality, labour market security, and the work environment to workers' well-being (see Cazes, et al. 2015). This framework follows two of the guiding principles of the broader well-being agenda as recommended in the Report of the Stiglitz-Sen-Fitoussi Commission and in line with the OECD *Better Life Initiative*), notably it focuses on: i) *outcomes*, as experienced by workers, as opposed to drivers of job quality; and ii) *individuals*, in the sense that all indicators are measured using micro-data to go beyond country averages (OECD, 2014). The OECD framework relies on measures of *objective features* of job-quality (i.e. it considers objective and self-reported outcomes, but not purely individual perceptions of 'job satisfaction', as these perceptions cannot be directly and easily amenable to policy). Finally, the OECD Framework favours job quality indicators that are easily *replicable* across socio-demographic groups and countries, to maximise policy relevance. This partly stems from the possibility of tailoring the building blocks of the OECD framework to specific features of certain countries (including data-availability), while retaining the same conceptual foundations.

4. The three dimensions identified in the OECD Job Quality Framework are defined as follows:

- The first dimension captures the extent to which earnings contribute to material well-being. It is defined as the **quality of earnings** and characterized in terms of both average earnings and their distribution due to their importance for individual and overall well-being.
- The second dimension, defined as **labour market (in)security**, captures those aspects of economic insecurity that are related to the risks that workers face in the labour market.
- The third dimension of job-quality, the **quality of the working environment** captures non-economic aspects of job quality and includes factors that relate to the nature and content of the work performed, working-time arrangements and workplace relationships.

3. OECD indicators on job quality

5. The choice of indicators to populate the OECD Job Quality Framework has been guided by a dual approach: (i) make use of the best comparative information that already exists to support analysis and policy recommendations; and (ii) identify gaps in the availability of comparative information on job quality that the statistical community should address in the future, most notably in the area of quality of the working environment where comparative information is often scarce and limited in scope, mainly because, in contrast with the two other dimensions (earnings quality and labour market security), the topic covers rather uncharted territory for national statistical offices. The OECD database on job quality is structured around the three key building blocks of the OECD Job Quality Framework, as well as their more detailed aspects. It displays country information for OECD and a number of emerging countries (see box 1 below for the extension of the framework to emerging economies).

6. As outlined before, **earning quality** is measured by taking into account both the level and the distribution of earnings across the workforce. Measuring earnings at the *individual level* requires choosing between gross or net earnings (i.e. before or after deductions of taxes and social security contributions) as well as whether earnings should be measured on an hourly, monthly or annual basis. While net earnings would be the most relevant measure from a worker perspective as this determines the contribution of work to living standards and labour supply decisions, it is less widely available in practice. Hourly wages rather than monthly or annual earnings are chosen to abstract from differences in working time between workers that relate more job quantity than job quality. At the *aggregate level*, earnings quality is measured by the generalised means framework, originally proposed by Atkinson (1970) and later adopted by Foster et al. (2013) and OECD (2004). Generalised means represent a weighted average of individual earnings that

allows focusing on specific parts of the distribution depending on the value of a single (exponent) parameter. This latter is often referred to as the coefficient of inequality aversion; a lower value corresponds to higher inequality aversion, which in turn translates into lower earnings quality for a given distribution. Earnings quality can therefore be decomposed into two components: the arithmetic (simple) mean of earnings (the “level” component), and the relative wedge between the general and the arithmetic means (the “distribution” component) under different choices of inequality aversion parameter¹.

7. **Labour market (in)security** is defined in terms of the expected earnings loss associated with unemployment. This loss depends on the risk of becoming unemployed, the expected duration of unemployment and the degree of mitigation against these losses provided by government transfers to the unemployed. It is measured by the product of the unemployment risk and one minus the unemployment insurance, where each of these two terms are defined as follows:

- *Unemployment risk* is computed by looking at the distribution of the length of ongoing unemployment spells, at a given point in time. This information is available on a quarterly basis in the *OECD Unemployment Duration Database* (<http://dx.doi.org/10.1787/data-00322-en>) for all countries, while group-specific breakdowns are calculated using Household and Labour Force surveys.
- *Unemployment insurance* captures the mitigating effect of government transfers on individuals’ exposure to unemployment risk. An indicator of effective unemployment insurance is calculated as the product of the coverage and replacement rates of public transfers received by the unemployed². At the aggregate level, the *OECD Benefit Recipients Database* and the *OECD Labour Market Programmes Database* (<http://dx.doi.org/10.1787/data-00312-en>) provide estimates of the share of unemployed people receiving benefits, while the *OECD Taxes and Benefits Database* (<http://dx.doi.org/10.187/data-00201-en>) enables the calculation of replacement rates.

8. **Quality of the working environment** is measured by the incidence of job strain among workers³ where job strain is defined as jobs where workers face more job demands than the number of resources they have at their disposal (as described in Chapter 5 of *How’s Life 2013*).

- Taking into account of data availability, two types of job demands are identified: i) time pressure which encompasses long working hours, high work intensity and working time inflexibility; and ii) physical health risk factors, such as dangerous work (i.e. being exposed to noise, vibrations, high and low temperature) and hard work (i.e. carrying and moving heavy loads, painful and tiring positions). Similarly, two types of job resources are

¹ Choosing how to weight different segments of the distribution (or equivalently by allowing for different degrees of inequality aversion) provide flexibility in the aggregation method. For example, a “moderate inequality aversion” (i.e. choosing a coefficient of -1) as displayed in Table A5 in the Annex gives, for a representative OECD country, most of the weight to the bottom tercile of the distribution (two-third), a smaller but still significant weight to the second tercile (one quarter) and a relatively small weight to the top tercile (10%). In the case of “high inequality aversion” (i.e. coefficient of -3), a weight of 85% is given to the bottom tercile, 13% to the middle tercile and 2% to the top tercile (OECD, 2014). Hence, different levels of inequality aversion will be displayed in the job quality database.

² Those transfers include unemployment insurance and/or assistance, as well as social assistance benefits unemployed are entitled to, depending on the national institutional settings.

³ Employees only.

considered, namely: i) work autonomy and learning opportunities which include workers' freedom to choose and change their work tasks and methods, as well as formal (i.e. training) and informal learning opportunities at work; and ii) workplace relationships which measure the extent to which good relations prevail among colleagues. The composite Job Strain index, thus, refers to those jobs where the workers face one demand but have no resources, or face two demands but have one or no resource.

- As no single source is available for all OECD countries, the Job Strain index is obtained by combining two international surveys: the 4th European Working Conditions Survey⁴ and the 3rd Work Orientations module of the *International Social Survey Program*, both of which were collected in 2005. Both surveys contain questions on the job demands and job resources discussed above; these questions differ in terms of question wording, answer scales and questions order.

9. Table 1 provides a first indication of job quality across countries, both OECD and non-OECD (see box 1 for the framework adjustment to emerging economies), for which data are available and makes a first attempt documenting the relationship between the quality and quantity of job opportunities. The main patterns emerging from the analysis are described below; most indicators refer to 2010 and may thus be sensitive to the aftermath of the financial crisis, notably those measuring security against unemployment.

10. The analysis shows that, while job quantity and job quality tend to be positively correlated in advanced OECD countries, the main issue for emerging economies is not the lack of jobs *per se* but rather the lack of good quality jobs. Looking across socio-demographic groups, youth and low-skilled workers are the groups most likely to combine a high risk of joblessness with low-quality jobs, while high-skilled workers tend to be more often employed and to have the best quality jobs along all three dimensions. Women also face some clear disadvantages, with substantial gender gaps in employment levels, earnings quality and labour market security.

Box 1. Extending the OECD Job Quality Framework to Emerging Economies

The three building blocks of the OECD Job Quality Framework have been defined in a broad sense to capture job quality in countries at all stages of development. On-going work with the Directorate for Employment, Labour and Social Affairs to extend it to a set of emerging economies considers the following adjustments to take into account the most salient features of the labour markets in these economies, notably the weakness of social protection, the high incidence of informality and the high rates of in-work poverty, as well as data limitations (*Employment Outlook 2015*):

- The *labour market (in)security* dimension is enriched by a complementary risk measure, namely the risk of falling below a subsistence level of earnings while employed. Indeed, in most emerging economies, open unemployment is often low because workers simply cannot afford to be unemployed, partly due to the absence (or weakness) of social security (unemployment protection in particular). Their exposure to insecurity is thus better captured by the risk of falling below a threshold of extreme low pay, often in the informal, unprotected sector.
- The *quality of the working environment* dimension is proxied by the incidence of very long working hours. This adjustment is required as information on working conditions is typically scarce and limited in scope in emerging economies. Numerous studies on occupational health have investigated the impact of working long hours on workers' well-being: while evidence is mixed regarding the relationship between long working hours and life satisfaction (Hewlett and Luce, 2006; Gray et al. 2004), results suggest that working very long hours impairs workers' physical and mental health, in particular when employees have little control over the number of hours they work and/or on their work schedule (e.g. Frijters et al. 2009; Dembe et al. 2005, Burke et al. 2009). Ultimately, using long hours as a proxy for working conditions in emerging economies seems to be a

⁴ 5th EWCS and 6th EWCS have been used since for the database update for OECD European countries. The 4th ISSP module will be used as well for the update on OECD non-European countries.

reasonable option, as it allows a broad coverage of emerging economies, as well as a breakdown between formal and informal jobs. The analysis supports this approach, as it shows a strong positive correlation between job strain and long hours across a broad group of countries where both measures are available.

Table 1. Relationship between job quality and job quantity in OECD and non OECD countries, 2010*

Country groupings based on performance along each dimension by tercile

	Job quality				Job quantity
	Earnings quality	Labour market security (against the risk of unemployment)	Labour market security (against the risk of extreme low-pay)	Quality of the working environment (as the incidence of job strain)	
Argentina	Lower	Lower	Middle	N/A	Middle
Australia	Middle	Upper	N/A	Upper	Upper
Austria	Middle	Upper	N/A	Middle	Upper
Belgium	Upper	Middle	N/A	Middle	Middle
Brazil	Lower	Lower	Middle	N/A	Middle
Canada	Upper	Middle	N/A	Upper	Upper
Chile	Lower	Lower	Upper	N/A	Lower
Urban China	Lower	Middle	Upper	N/A	Upper
Colombia	Lower	Lower	Lower	N/A	Lower
Costa Rica	Lower	Lower	Upper	N/A	Lower
Czech Republic	Middle	Upper	N/A	Middle	Middle
Denmark	Upper	Middle	N/A	Upper	Upper
Estonia	Lower	Lower	N/A	Middle	Middle
Finland	Upper	Upper	N/A	Upper	Upper
France	Upper	Upper	N/A	Middle	Middle
Germany	Upper	Upper	N/A	Middle	Upper
Greece	Middle	Lower	N/A	Lower	Lower
Hungary	Middle	Lower	N/A	Lower	Lower
India	Lower	Upper	Lower	N/A	Lower
Indonesia	Lower	Lower	Lower	N/A	Lower
Ireland	Upper	Middle	N/A	Upper	Lower
Israel	Lower	Middle	N/A	Middle	Middle
Italy	Upper	Middle	N/A	Middle	Lower
Japan	Middle	Upper	N/A	Middle	Upper
Korea	Middle	Upper	N/A	Lower	Middle
Luxembourg	Upper	Upper	N/A	Middle	Middle
Mexico	Lower	Middle	Lower	Middle	Middle
Netherlands	Upper	Upper	N/A	Upper	Upper
New Zealand	Middle	Upper	N/A	Upper	Upper
Norway	Upper	Upper	N/A	Upper	Upper
Poland	Middle	Lower	N/A	Lower	Lower
Portugal	Middle	Middle	N/A	Lower	Middle
Russia	Lower	Middle	Upper	Lower	Middle
Slovak Republic	Middle	Lower	N/A	Lower	Lower
Slovenia	Middle	Middle	N/A	Lower	Middle
South Africa	Lower	Lower	Middle	Lower	Lower
Spain	Middle	Lower	N/A	Lower	Lower
Sweden	Upper	Middle	N/A	Upper	Upper
Switzerland	Upper	Upper	N/A	Upper	Upper
Turkey	Lower	Lower	Middle	Lower	Lower
United Kingdom	Upper	Middle	N/A	Upper	Upper
United States	Middle	Middle	N/A	Middle	Middle

Note: Upper, Middle and Lower indicate the top, middle and bottom third of the country ranking in each dimension. Job quantity is measured by the employment-to-population ratio in the population aged 15 or more in each country. The ranking for the risk of low-pay considers emerging economies only.

*2005 for the quality of working environment as measured by the job strain indicator.

Sources: OECD calculations based on Job Quality database, see also Cazes et al. 2015).

6- Conclusions

11. This paper has presented the OECD Framework for Measuring and Assessing Job Quality, developed jointly by the OECD Employment, Labour and Social Affairs Directorate and the Statistics Directorate as part of a broader EU-supported project⁵, describing its links to the broader well-being agenda pursued by the OECD. The approach to job quality taken is explicitly multi-dimensional and defined in terms of earnings quality, labour market security and quality of working environment. The paper has described measurement choices and indicators for each of the dimensions of job quality and highlighted the main limitations on the data front. Finally, the paper has briefly documented job quality across both OECD and non OECD countries, as well as socio-economic groups for which data are available (see detailed results in Cazes, et al. 2015).

12. Going forward, further work will be necessary to extend and strengthen the comprehensive analysis of job quality in both OECD and emerging economies. On the data front, the OECD job quality agenda will pursue a dual track approach. The best existing information will continue to be used to monitor job quality across countries and socio-demographic groups, while OECD statistical efforts will particularly concentrate on the development of shared international guidelines on measuring the quality of the working environment, in particular to foster statistics in emerging economies where data are scarce. A key objective is to develop and enhance the job quality database to support the broader use of job-quality measures in analytical work and policy debates (e.g. the *New OECD Jobs Strategy*, 2018).

13. Recent OECD empirical work is also enriching the static analysis conducted so far with a dynamic perspective that places more emphasis on the long-term prospects that jobs provide (e.g. in terms of career advancement)⁶. More generally, further analytical work remains to be done at *country level*, to better understand how job quality interact with job quantity and contribute to overall labour market performance. In particular, assessing the impact of job quality on labour productivity based on firm-level data, as well as exploring the role of institutions, labour market policies, firm type and management practices in generating a virtuous cycle of higher quality jobs, better health and higher productivity would provide further critical evidence for giving job quality the place it deserves in the policy recommendations on labour market performances.

5 This OECD project on “Defining, Measuring and Assessing Job Quality and its Links to Labour Market Performance and Well-being” was launched in October 2013 (VS/2013/0108 5SI2.666737).

6 See OECD *Employment Outlook* 2015

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